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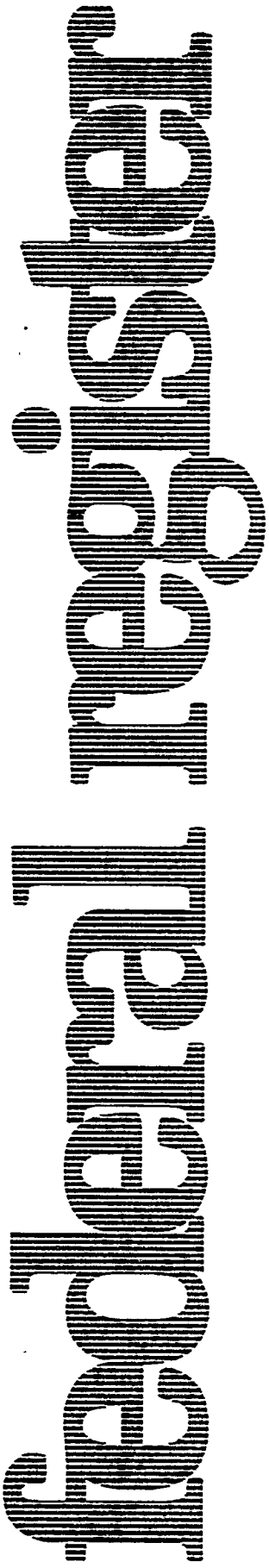

Monday
January 21, 1980

# Highlights

3875 **Ammonia Imports from the Soviet Union** Presidential proclamation

3904 **Income Tax** Treasury/IRS publishes temporary regulations on the disclosure of returns and return information in connection with procurement of property and services for tax administration purposes

4332 **Housing and Community Development** HUD/FHC provides FHA mortgage insurance for condominium units in projects under certain conditions subject to the authority of the Act of 1978 (Part VII of this issue)

3901 **Housing in High Cost Areas** HUD/FHC increases from 50 percent to 75 percent the maximum percentage by which mortgage amount limitations may be increased; effective 1-21-80

3902 **Maximum Mortgage Insurance** HUD/FHC publishes a final rule on mutual mortgage insurance and insured home improvement loans; effective 1-21-80

3974 **Arts in Education Program** HEW/OE withdraws 1-28-80 as the closing date for the transmittal of grant applications

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FEDERAL REGISTER Published daily, Monday through Friday, (not published on Saturdays, Sundays, or on official holidays), by the Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D.C. 20408, under the Federal Register Act (49 Stat. 500, as amended; 44 U.S.C. Ch. 15) and the regulations of the Administrative Committee of the Federal Register (1 CFR Ch. I). Distribution is made only by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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Area Code 202-523-5240

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3917 **Small Businesses** SBA proposes a rule on maximum annual cost of money to small concerns; comments by 2-20-80

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4230 **Part III, Treasury/FS**
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# Presidential Documents

Title 3—
The President

Proclamation 4714 of January 18, 1980

## Temporary Duty Increase on the Importation Into the United States of Certain Anhydrous Ammonia From the Union of Soviet Socialist Republics

By the President of the United States of America

A Proclamation

1. Pursuant to sections 406(c), 202, and 203 of the Trade Act of 1974 (the Trade Act) (19 U.S.C. 2436(c), 2252 and 2253), I hereby find that there are reasonable grounds to believe, with respect to imports of anhydrous ammonia from the Union of Soviet Socialist Republics (U.S.S.R.) provided for in items 417.22 and 480.65 of the Tariff Schedules of the United States (TSUS), that market disruption exists with respect to articles produced by a domestic industry and that emergency action is necessary.

2. Recent events have altered the international economic conditions under which I made my determination that it was not in the national interest to impose import relief on anhydrous ammonia from the U.S.S.R. as recommended by the United States International Trade Commission (USITC) on October 11, 1979. However, the factual basis upon which USITC made its determination of market disruption still exists.

NOW, THEREFORE, I, JIMMY CARTER, President of the United States of America, acting under the authority vested in me by the Constitution and the statutes of the United States, including sections 604, 406(c), 202 and 203 of the Trade Act (19 U.S.C. 2483, 2436(c), 2252, and 2253), do proclaim that—

(1) Subpart A, part 2 of the Appendix to the TSUS is modified as set forth in the Annex to this proclamation.

(2) This proclamation shall be effective as to articles entered, or withdrawn from warehouse, for consumption on or after the third day following the date of publication of this Proclamation in the Federal Register and shall remain in effect for one year unless the period of its effectiveness is earlier expressly suspended, modified or terminated, but in any event not longer than authorized by section 406(c) of the Trade Act.

(3) The Commissioner of Customs shall take such action as the U.S. Trade Representative shall direct in the implementation and administration of the import relief herein proclaimed.

IN WITNESS WHEREOF, I have hereunto set my hand this eighteenth day of January in the year of our Lord nineteen hundred and eighty, and of the Independence of the United States of America the two hundred and fourth.

ANNEX

Subpart A, part 2 of the Appendix to the TSUS is modified by inserting the following new provision in numerical sequence:

| Item | Articles | Quota Quantity (in short tons) |
|---|---|---|
| | "Whenever the aggregate quantity of anhydrous ammonia specified below for item 923.10, the product of the Union of Soviet Socialist Republics (U.S.S.R.), has been entered during the period January 24, 1980 to January 24, 1981, no anhydrous ammonia in such item, the product of such country, may be entered during the remainder of such period: | |
| 923.10 | Anhydrous ammonia, provided for in items 417.22 and 480.65..... | 1,000,000" |

[FR Doc. 80-2087
Filed 1-18-80; 2:44 pm]
Billing code 3195-01-M

# Rules and Regulations

Federal Register
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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.
The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each month.

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

### 7 CFR Part 989

## Raisins Produced From Grapes Grown in California; Free and Reserve Percentages for the 1979–80 Crop Year

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Final rule.

**SUMMARY:** This rule designates final marketing percentages for Natural (sun-dried) Seedless and Dipped and Related Seedless raisins from the 1979 production. The estimated 1979 production of these raisins exceeds domestic and Western Hemisphere market needs, and the percentages are intended to tailor the supply to these needs. Excess supplies would be available primarily for export to approved countries outside of the Western Hemisphere.

**EFFECTIVE DATES:** August 1, 1979, through July 31, 1980.

**FOR FURTHER INFORMATION CONTACT:** James S. Miller, Specialty Crops Branch, Fruit and Vegetable Division, AMS, USDA, Washington, D.C. 20250, (202) 447–5053.

**SUPPLEMENTARY INFORMATION:** This rule designates final free tonnage percentages for Natural (sun-dried) Seedless and Dipped and Related Seedless raisins of 71 percent and 70 percent, respectively, for the 1979–80 crop year (§ 989.110; 44 FR 64397). Also designated for that crop year are final reserve tonnage percentages for these raisins of 29 percent and 30 percent, respectively. These percentages would apply to all standard Natural (sun-dried) Seedless, and Dipped and Related Seedless raisins acquired during that crop year.

The designations would be pursuant to § 989.55 of the marketing agreement and Order No. 989, both as amended (7 CFR Part 989), regulating the handling of raisins produced from grapes grown in California, hereinafter referred to collectively as the "order". The order is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674). The proposal was unanimously recommended under § 989.54(b) by the Raisin Administrative Committee, established under the order as the agency to administer its terms and provisions under USDA supervision.

Preliminary percentages for Natural (Sun-dried) Seedless and Dipped and Related Seedless raisins for the 1979–80 crop year were issued November 15, 1979, and appeared in the Federal Register on November 20, 1979, (§ 989.233; 44 FR 66574). Subsequent to issuance of those percentages the production estimate of Dipped and Related Seedless raisins was lowered and an interim change in the preliminary percentages applicable to those raisins was made in recognition of this fact. This action was issued on December 3, 1979, and appeared in the December 6, 1979, issue of the Federal Register (§ 989,233 44 FR 70117.)

Under § 989.54(b) of the order, no later than February 15 of a crop year the Committee shall recommend to the Secretary a free tonnage percentage which when applied to the estimated production of a varietal type would tend to release the full free tonnage computed for that varietal type. Section 989.54(b) also provides that any difference between any free tonnage percentage designated and 100 percent shall be the reserve percentage.

On January 3, 1980, the Committee recommended final free and reserve tonnage percentages for the 1979–80 crop year, and made its final 1979 production estimates for Natural (sun-dried) Seedless and Dipped and Related Seedless raisins. The Committee estimated the 1979 production of Natural (sun-dried) Seedless raisins to be 262,025 natural condition tons (17,453 tons more than its preliminary estimate of 244,572 natural condition tons). Dividing the computed free tonnage of 185,757 natural condition tons by the estimated final production and rounding to the nearest full percent results in a final free tonnage percentage of 71 percent (and a final reserve tonnage percentage of 29 percent).

For Dipped and Related Seedless raisins, the Committee estimated the 1979 production to be 13,700 natural condition tons (up 100 tons from its interim estimate of 13,600 tons). Dividing the computed free tonnage of 9,586 natural condition tons by the estimated final production and rounding to the nearest full percent results in a final free tonnage percentage of 70 percent (and a final reserve tonnage percentage of 30 percent).

After consideration of all relevant matter presented, including that in the notice issued in connection with the designation of the preliminary free and reserve tonnage percentages for Natural (sun-dried) Seedless and Dipped and Related Seedless raisins (§ 989.233; 44 FR 62901), the interim change in percentages for Dipped and Related Seedless raisins (§ 989.233; 44 FR 70117), the information and recommendation of the Committee, and other available information, it is found that the designation, under § 989.55 of the order, of the final free and reserve tonnage percentages applicable to Natural (sun-dried) Seedless and Dipped and Related Seedless raisins, for the 1979–80 crop year, as hereinafter set forth, will tend to effectuate the declared policy of the act.

It is further found that it is impractical, unnecessary, and contrary to the public interest to give preliminary notice, engage in public rulemaking, and postpone the effective time of this action until 30 days after publication in the Federal Register (5 U.S.C. 553) in that: (1) The percentages designated herein for the 1979–80 crop year apply to all Natural (sun-dried) Seedless and Dipped and Related Seedless raisins acquired by handlers during that crop year; (2) handlers are marketing 1979 crop raisins and this action must be taken promptly to achieve its purpose of making the full free tonnage computed for these varietal types available to handlers; (3) handlers are aware of this action as recommended by the Committee at an open meeting and require no additional time to comply; and (4) this action relieves restrictions on handlers.

Further, in accordance with procedures in Executive Order 12044, the emergency nature of this action

warrants publication without opportunity for further public comment. This regulation is not classified significant under USDA criteria for implementing the Executive Order. An impact analysis is available from James S. Miller, (202) 447–5053.

Therefore, § 989.233 to be included in Subpart—Supplementary Regulations (7 CFR 989.202–989.232; 44 FR 66574; 70117) is revised to read as follows:

**§ 989.233 Free and reserve percentages for the 1979–80 crop year.**

The percentages of standard Natural (sun-dried) Seedless and Dipped and Related Seedless raisins acquired by handlers during the crop year beginning August 1, 1979, which shall be free tonnage and reserve tonnage, respectively, are designated as follows:

| | Free percentage | Reserve percentage |
|---|---|---|
| Natural (sun-dried) Seedless | 71 | 29 |
| Dipped and Related Seedless | 70 | 30 |

(Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674)

Dated: January 16, 1980.

D. S. Kuryloski,

*Deputy Director, Fruit and Vegetable Division.*

[FR Doc. 80-1668 Filed 1-18-80; 8:45 am]

BILLING CODE 3410-02-M

## 7 CFR Part 1064

**[Docket No. AO-23-A52]**

## Milk in the Greater Kansas City Marketing Area Order Amending Order

**AGENCY:** Agricultural Marketing Service.

**ACTION:** Final rule.

**SUMMARY:** This document amends the present order provisions based on industry proposals considered at a public hearing held October 30, 1978. The amendments permit the Director of the Dairy Division to change temporarily the pooling standards for supply plants and permit supply plant operators to divert producer milk directly from farms to nonpool plants for manufacturing. The changes, which have been approved by more than the required two-thirds of the producers in the market, are necessary to reflect current marketing conditions and to insure orderly marketing in the regulated area.

**EFFECTIVE DATE:** March 1, 1980.

**FOR FURTHER INFORMATION CONTACT:** Maurice M. Martin, Marketing Specialist, Dairy Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250, (202) 447–7183.

**SUPPLEMENTARY INFORMATION:** Prior documents in this proceeding:

Notice of hearing—Issued September 29, 1978; published October 6, 1978 (43 FR 46305).

Extension of time for filing briefs—Issued January 15, 1979; published January 19, 1979 (44 FR 3989).

Recommended decision—Issued July 24, 1979; published July 30, 1979 (44 FR 44517).

Extension of time for filing exceptions—Issued August 13, 1979; published August 16, 1979 (44 FR 47950).

Final decision—Issued January 3, 1980; published January 9, 1980 (45 FR 1908).

### Findings and Determinations

The following findings and determinations supplement those that were made when the order was first issued and when it was amended. The previous findings and determinations are hereby ratified and affirmed, except where they conflict with those set forth below.

(a) *Findings.* A public hearing was held to consider certain proposed amendments to the tentative marketing agreement and to the order regulating the handling of milk in the Greater Kansas City marketing area. The hearing was held pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601 *et seq.*), and the applicable rules of practice and procedure (7 CFR Part 900).

Upon the basis of the evidence introduced at such hearing and the record thereof, it is found that:

(1) The said order as hereby amended, and all of the terms and conditions thereof, will tend to effectuate the declared policy of the Act;

(2) The parity prices of milk, as determined pursuant to section 2 of the Act, are not reasonable in view of the price of feeds, available supplies of feeds, and other economic conditions which affect market supply and demand for milk in the said marketing area, and the minimum prices specified in the order as hereby amended, are such prices as will reflect the aforesaid factors, insure a sufficient quantity of pure and wholesome milk, and be in the public interest; and

(3) The said order as hereby amended regulates the handling of milk in the same manner as, and is applicable only to persons in the respective classes of industrial or commercial activity specified in, a marketing agreement upon which a hearing has been held.

(b) *Determinations.* It is hereby determined that:

(1) The refusal or failure of handlers (excluding cooperative associations specified in Sec. 8c(9) of the Act) of more than 50 percent of the milk, which is marketed within the marketing area, to sign a proposed marketing agreement, tends to prevent the effectuation of the declared policy of the Act;

(2) The issuance of this order, amending the order, is the only practical means pursuant to the declared policy of the Act of advancing the interests of producers as defined in the order as hereby amended; and

(3) The issuance of the order amending the order is approved or favored by at least two-thirds of the producers who during the determined representative period were engaged in the production of milk for sale in the marketing area.

### Order Relative to Handling

*It is therefore ordered,* That on and after the effective date hereof, the handling of milk in the Greater Kansas City marketing area shall be in conformity to and in compliance with the terms and conditions of the aforesaid order, as amended, and as hereby further amended, as follows:

1. In § 1064.7, paragraph (d)(6) is revised by revoking the phrase "direct marketing area route disposition, except filled milk, and", and paragraph (b) is revised to read as follows:

**§ 1064.7 Pool plant.**

* * * * *

(b) A supply plant from which during the month 50 percent or more of the Grade A milk received at such plant from dairy farmers and handlers described in § 1064.9(c) (including milk diverted from such plant pursuant to § 1064.13(c) but excluding milk diverted to such plant pursuant to § 1064.13(c)) is shipped from such plant as fluid milk products, except filled milk, to and received at pool distributing plants, subject to the following conditions:

(1) A supply plant which is a pool plant under this paragraph during each month of September through January shall be pooled for the following months of February through August if the required percentage pursuant to this paragraph is not met, unless the plant operator files a written request with the market administrator that such plant not be a pool plant, such nonpool status to be effective the first month following such request and thereafter until the plant qualifies as a pool plant on the basis of shipments;

(2) The shipping percentage specified in this paragraph may be increased or

decreased temporarily for any of the months of September through January up to 20 percentage points by the Director of the Dairy Division if the Director finds such revision is necessary to obtain needed shipments or to prevent uneconomic shipments. For any of the months of February through August, a minimum shipping percentage of up to 20 percent may be established by the Director for all pool supply plants that are qualified as a pool plant pursuant to paragraph (b)(1) of this section. Before making such a finding the Director shall investigate the need for revision, either at the Director's initiative or at the request of interested persons. If the investigation shows that a revision might be appropriate, the Director shall issue a notice stating that revision is being considered and inviting data, views, and arguments. If a plant which would not otherwise qualify as a pool plant during the month qualifies as a pool plant because of a reduction in shipping requirements pursuant to this subparagraph, such plant shall be a nonpool plant for such month if the operator of the plant files a written request for nonpool plant status with the market administrator at the time the report is filed for such plant pursuant to § 1064.30.

* * * * *

2. In § 1064.13, paragraph (c) is revised to read as follows:

**§ 1064.13 Producer milk.**

* * * * *

(c) Diverted, subject to the following conditions, from a pool distributing plant to a pool supply plant or from a pool plant to a nonpool plant that is not a producer-handler plant. "Diverted milk" is milk normally received at a pool plant but which is moved directly from a dairy farm to a nonpool plant as specified in this paragraph or from a pool distributing plant to a pool supply plant for the account of a handler operating the pool distributing plant or a handler described in § 1064.9(b). Such milk shall be deemed to have been received by the diverting handler at the location of the pool plant from which diverted except that milk diverted to a plant located more than 125 miles by the shortest highway distance as determined by the market administrator from the nearest of the City Halls of Kansas City, Missouri, or Topeka, Kansas, shall be deemed to have been received at the location of the plant to which diverted in applying §§ 1064.52 and 1064.75:

(1) A handler described in § 1064.9(b) may divert for its account the milk of any member producer whose milk is received at a pool plant for at least 1 day's delivery during the month, without limit during the other days of the month. The total quantity of milk so diverted may not exceed the larger of the following amounts:

(i) The total quantity of its member producer milk received at all pool plants during the current month, or

(ii) The average daily quantity of its member producer milk received at pool plants during the previous month, multiplied by the number of days in the current month.

(2) A handler operating a pool plant may divert for his account the milk of any producer, other than a member of a cooperative association which has diverted milk pursuant to paragraph (c)(1) of this section, whose milk is received at the handler's pool plant for at least 1 day's delivery during the month, without limit during the other days of the month. However, the total quantity of milk so diverted may not exceed the larger of the following amounts:

(i) The total quantity of milk received at such plant during the current month from producers who are not members of a cooperative association that has diverted milk pursuant to paragraph (c)(1) of this section; or

(ii) The average daily quantity of milk received at such plant during the previous month from producers who are not members of a cooperative association that has diverted milk in the current month pursuant to paragraph (c)(1) of this section, multiplied by the number of days in the current month.

(3) Diversions in excess of the applicable percentages pursuant to paragraph (c)(1) and (2) of this section shall first be assigned to diversions to nonpool plants and any excess quantity assigned to nonpool plants shall not be producer milk and shall not be deemed to have been received by the diverting handler. The diverting handler shall specify the dairy farmers whose milk shall not be included as producer milk pursuant to this subparagraph. Excess diversions to a pool supply plant shall be producer milk at the supply plant in applying §§ 1064.7, 1064.52 and 1064.75.

(Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674)

Effective date: March 1, 1980.

Signed at Washington, D.C., on January 15, 1980.

Jerry Hill,

*Deputy Assistant Secretary for Marketing Services.*

[FR Doc. 80-1828 Filed 1-18-80; 8:45 am]

BILLING CODE 3410-02-M

## FEDERAL RESERVE SYSTEM

## 12 CFR Part 226

**[Reg Z; FC-0168 and -0169]**

## Truth in Lending; Official Staff Interpretations

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Official Staff Interpretations.

**SUMMARY:** The Board is publishing the following official staff interpretations of Regulation Z (Truth in Lending): FC-0168 regarding disclosure of proper period for minimum periodic payment in open end credit transactions, and FC-0169 regarding conditions under which certain charges may be included in the "cash price." The agency is taking this action in response to requests for interpretation of this regulation.

**EFFECTIVE DATE:** On or after February 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Maureen English, Section Chief, Division of Consumer Affairs, Board of Governors of the Federal Reserve System, Washington, D.C. 20551 (202-452-3867).

**SUPPLEMENTARY INFORMATON:** (1) Identifying details have been deleted to the extent required to prevent a clearly unwarranted invasion of personal privacy. The Board maintains and makes available for public inspection and copying a current index providing identifying information for the public subject to certain limitations stated in 12 CFR Part 261.6.

(2) An opportunity for public comment on an official staff interpretation may be provided upon request of interested parties and in accordance with 12 CFR Part 226.1(d)(2)(ii). As provided by 12 CFR Part 226.1(d)(3) every request for public comment shall be made in writing, should clearly identify the number of the official staff interpretation in question, should be addressed to the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551 and must be postmarked or received by the Secretary's office before the effective date of the interpretation. The request must also state the reasons why an opportunity for public comment would be appropriate.

(3) Authority: 15 U.S.C. 1640(b).

§ 226.7(a)—Disclosure of proper period for minimum periodic payment in open-end credit is based on payment frequency actually *required* by creditor. [Distinguishes Public Information Letter 858]

January 2, 1980.

You ask in your . . . letter for an official staff interpretation of § 226.7(a)(8) of Regulation Z. You write on behalf of your client, a credit union, regarding the appropriate minimum periodic payment disclosure that the credit union would be required to make in the following circumstances.

The credit union offers open-end credit to its members. Payments are required on a monthly basis and are calculated as a percentage of the account balance outstanding immediately after the most recent credit advance.

Also available to credit union members are voluntary payroll deduction plans that may be cancelled by the member at any time, and, we assume, without adverse consequences. Under such a plan, the member authorizes the employer to deduct amounts from the member's pay. The amount authorized to be deducted may not in fact represent the amount of the minimum periodic payment required under the open-end credit plan (for example, some of the amount deducted may be put into a savings account). Moreover, the dates of the payroll deductions often will not even coincide with the date by which the minimum periodic payment is due. (Staff assumes for purposes of this response that any payments made on an open-end account are promptly credited in accordance with § 226.7(g).)

You are concerned about the implications of Public Information Letter 858. That letter requires that the schedule of payments disclosure in a closed-end credit transaction (see § 226.8(b)(3)) must be based on the actual repayment schedule agreed to at consummation. You note, however, that § 226.7(a)(8) requires, in an open-end credit plan, disclosure of "the minimum periodic payment *required*," whereas § 226.8(b)(3) requires, in a closed-end credit transaction, disclosure of "the number, amount, and due dates or periods of payments *scheduled* to repay the indebtedness . . ." (Emphasis added.)

We believe that, pursuant to § 226.7(a)(8), a monthly minimum periodic payment should be disclosed where the credit union *requires* only a monthly remittance and the payroll deduction plan is voluntary and may be cancelled by the member without any adverse consequences.

This is an official staff interpretation of Regulation Z, issued pursuant to § 226.1(d)(2) and limited to the facts and issues discussed herein. It will become effective 30 days after publication in the Federal Register unless a request for public comment, made in accordance with the Board's procedures, is received and granted. We will notify you if the effective date of the interpretation is suspended because such a request is received.

Sincerely,

Janet Hart,

*Director.*

§ 226.2(n)—Prohibition against including § 226.4 charges in the cash price pertains to finance charges and does not apply to charges excluded pursuant to § 226.4(b). Alternatively, such charges may be shown as § 226.8(c)(4) other charges. (Modifies Public Information Letter 623.)

§ 226.4(b)—Prohibition against including § 226.4 charges in the cash price pertains to finance charges and does not apply to charges excluded pursuant to § 226.4(b). Alternatively, such charges may be shown as § 226.8(c)(4) other charges. (Modifies Public Information Letter 623.)

§ 226.8(c)—Certificate of title, registration and inspection fees may be either included in the cash price or shown as an other charge.

January 9, 1980.

In your letter of . . . you ask about the proper disclosure under Regulation Z of certain statutory fees imposed connection with the sale of motor vehicles.

You state that your client, a seller of motor vehicles, is required by state law to collect fees for the issuance of a certificate of title and for registration and inspection of the vehicle. You have been disclosing such fees as components of the cash price, but are concerned that the exclusionary language of § 226.2(n), which prohibits including "charges of the types described in § 226.4" in the cash price, requires that you discontinue this practice.

The staff believes that the prohibition in § 226.2(n) against including charges of the types described in § 226.4 pertains to finance charges and does not apply to those charges that have been excluded from the finance charge pursuant to § 226.4(b). Since you have properly excluded the certificate of title and registration fees from the finance charge, the prohibitory language does not apply and you may include them in the cash price. Alternatively, such charges may be shown as other charges pursuant to § 226.8(c)(4). To the extent that Public Information Letter 623 is inconsistent with this position, that letter is modified. Note that whichever approach is taken, the amount financed will include the fees.

The inspection fee, however, is not among the § 226.4(b) charges that must be itemized to be excluded from the finance charge. Therefore, as long as it is not "imposed directly or indirectly by the creditor as an incident to or as a condition of the extension of credit," it is not a finance charge and may either be included in the cash price as a "service[s] related to the sale" of the property pursuant to § 226.2(n), or shown as an other charge.

This is an official staff interpretation of Regulation Z, issued in accordance with § 226.1(d)(2) and limited to the facts and issues discussed herein. It will become effective 30 days after publication in the Federal Register unless a request for public comment, made in accordance with the Board's procedures, is received and granted. We will notify you if the effective date of the interpretation is suspended because such a request is received.

Sincerely,

Nathaniel E. Butler,

*Associate Director, Board of Governors of the Federal Reserve System.*

January 15, 1980.

Griffith L. Garwood,

*Deputy Secretary of the Board.*

[FR Doc. 80-1874 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Parts 25 and 121

**[Docket No. 16854; Amdts. Nos. 25-50 and 121-154]**

## Airplane Cabin Ozone Contamination

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This rule establishes specific airplane cabin ozone concentration standards for the issuance of type certificates for transport category airplanes. Cabin ozone standards are also adopted for the operation of large transport category airplanes by air carriers and commercial operators. The circumstances which created the need for this action where complaints of crewmembers and passengers of physical discomfort, due to ozone gas, on high-altitude flights. This action is intended to alleviate problems due to high-altitude ozone by placing limitations on acceptable levels of cabin ozone concentrations.

**EFFECTIVE DATE:** February 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Raymond E. Ramakis, Regulatory Projects Branch (AVS-24), Safety Regulations Staff, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone (202) 755-8716.

**SUPPLEMENTARY INFORMATION:**

### History

This final rule is based on Notice of Proposed Rule Making (NPRM) No. 78-15, published in the Federal Register on October 5, 1978 (43 FR 46034). All interested persons have been given an opportunity to participate in the making of the rule, and due consideration has been given to all matters presented. As a result of comments received and further consideration by the FAA, the following changes have been made to the rule as proposed:

1. Each ozone concentration is stated in parts per million by volume (ppmv)

and expressed as a sea level equivalent, i.e., the ratio of ozone to air that would exist at 760 millimeters of mercury pressure and 25° C.

2. Under Part 121, a maximum average ozone concentration is imposed only on flight segments of more than 4 hours, instead of more than 3 hours, as proposed.

3. The time for compliance by Part 121 certificate holders has been extended from 6 months to 12 months, with provision for further extension of the compliance date if noncompliance is shown to be beyond the certificate holder's control.

Discussion of the Rule

*Background*

Notice 78-15 proposed to amend Part 25 by adding cabin ozone concentration standards for the issuance of type certificates for transport category airplanes, and to amend Part 121 to adopt cabin ozone standards for the operation of large transport category aircraft by air carriers. The NPRM sets forth the extensive background supporting its issuance, including studies by the National Aeronautics and Space Administration and the Environmental Protection Agency, as well as responses to the FAA's Advance Notice of Proposed Rule Making No. 77-22 (42 FR 54427; October 6, 1977).

The proposed maximum ozone exposure levels were also supported by U.S. Department of Transportation Report No. FAA-AEQ-77-13 (ADA-046956), Ozone Concentration by Latitude, Altitude, and Month, Near 80° W, and Report No. FAA-EQ-78-03 (ADA-050988), Guidelines for Flight Planning During Periods of High Ozone Occurrence. These reports may be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22151.

In addition, the FAA Civil Aeromedical Institute recently conducted research in which it studied ozone effects on 83 men and women in an altitude chamber at 6000 feet with a relative humidity of 10-12% and a temperature of 68-74° F (20-23° C). No significant effects attributable to ozone were demonstrated for exercising subjects at an ozone concentration of 0.20 ppmv, sea level equivalent, for 4 hours. However, all exercising subjects at 0.3 ppmv, sea level equivalent, ozone showed some effects on the respiratory system. The most common symptom was coughing, and the most prominent physical effect was restriction of air flow in the bronchioles. The study demonstrated that the threshold for ozone tolerance, expressed as a sea level equivalent, lies between 0.2 and 0.3 ppmv, and the exercise may be an aggravating factor in ozone toxicity, since sedentary subjects were unaffected by an ozone concentration of 0.3 ppmv.

A number of methods to control ozone exposure have been examined, including various filtration and converter systems, disassociation of ozone by use of heat, monitoring of ozone levels with meters, the development of ozone forecasting methods, and avoidance of areas of high ozone concentration. Since each of these methods has certain beneficial aspects, and further technological developments are possible, the FAA does not favor any method over another. However, the method of compliance chosen by a certificate holder must be shown to be effective, and the FAA intends to conduct spot checks to ensure compliance with the standards adopted by these amendments.

*Favorable Comments*

The FAA received comments in response to Notice 78-15 from 266 individuals, airline organizations, labor organizations, research firms, manufacturers, universities, and physicians. Approximately 234 comments were received from individual flight attendants, a majority of which agreed with the one received from the Independent Union of Flight Attendants. All flight attendant comments attested to the adverse physical effects of ozone during and after flight. Shortness of breath, sore throat, bleeding nose, chest pain, fatigue, itching eyes, etc., were commonly cited physical results of ozone contamination and exposure. All flight attendants submitting comments urged that some method be found to alleviate ozone effects. Comments frequently contained information indicating the highest incidence of ozone irritation during flights for long durations at high altitudes.

Of the remaining 32 comments, 20 were in favor of the rule, 10 were opposed, and 2 provided information or made proposals that were outside the scope of the notice.

Included among the 20 additional commenters expressing favor were professional organizations representing flight crewmembers, governmental agencies with direct knowledge of ozone contamination, manufacturers engaged in the development of filters or converters designed to control cabin ozone levels, researchers familiar with the physiological effects of various ozone exposure levels, faculty scientists of two universities, and physicians.

*Ozone Concentration*

Some commenters expressed confusion as to what was meant by the proposed cabin ozone concentrations. The ratios proposed were those that would be expected at the air pressure which is normally maintained in the passenger cabins of the affected aircraft (the air pressure at about 6,000 feet). However, since most ratios of this kind, including those adopted by the Occupational Safety and Health Administration (OSHA) are expressed as sea level equivalents, the ratios in this final rule have been expressed at standard sea level pressure of 760 millimeters of mercury at 25° C.

Since there is more air in a given volume at sea level, the proposed 0.3 ppmv limit converts to 0.25 as a ppmv, sea level equivalent. With this conversion, the proposed time-weighted average of 0.1 ppmv would be reduced to 0.08 ppmv, sea level equivalent. However, it was the intent of the FAA that this average be as consistent as possible with that adopted by OSHA which is an average of 0.1 ppmv on a sea level equivalent scale. Accordingly, the time-weighted average adopted by this final rule is 0.1 ppmv, sea level equivalent.

*Flight Segment*

Notice 78-15 proposed to impose a time-weighted average ozone concentration of 0.1 ppmv on Part 121 certificate holders for flight segments that exceed 3 hours. As explained in the notice, only about 2 of these 3 hours of scheduled flight time would be above flight level 180. This is based on conservative times for start, taxi, takeoff, climb, descent, approach, and landing. Imposition of a time-weighted average for flights of shorter duration was considered unnecessary, since these flights would have to comply with the basic 0.3 ppmv limit to be imposed on all flights, and, therefore, could not exceed the amount of ozone exposure (i.e. dose) allowed by the OSHA time-weighted average of 0.1 ppmv which is based on an 8-hour period.

Conversion of the proposed limit from 0.3 ppmv to sea level equivalent results in a new limit of 0.25 ppmv. Virtually all of the medical data reviewed by the FAA indicate that below this level short-term exposures have no significant adverse effects, while a higher limit would be expected to result in some adverse effects. In view of this conversion to 0.25 ppmv, the FAA has concluded that the rule should be based on flight segments of 4 or more hours, since operation above flight level 180 for up to 3 hours, instead of 2 hours, could

still not exceed the amount of exposure (i.e. dose) allowed by OSHA. In fact, use of the proposed 3-hour flight segment in the final rule would have resulted in a stricter dose standard than that used by OSHA, as well as that adopted in new § 25.832. A stricter standard is unnecessary, since the FAA has received no complaints of ozone contamination from occupants of short-range domestic flights, and its 1978 and 1979 ozone monitoring programs have indicated only minimal ozone contamination on these flights. This revision in the final rule will avoid putting ozone reduction equipment on a large number of short-range airplanes for which no complaints have been received.

For these reasons, the minimum flight segment proposed has been extended to 4 hours. Flights scheduled for longer than this time must not exceed 0.1 ppmv average ozone concentration over the entire flight segment.

*Statistical Confidence Level*

Two commenters recommended that the proposed 84% confidence level required for statistics used by Part 121 certificate holders to demonstrate compliance with the ozone limits imposed by the rule be raised to 95%. However, the FAA believes that 84%, which represents one standard deviation, establishes a practical level of statistical confidence. It should be noted that the statistical confidence level only pertains to the required validity of the statistical proof of the certificate holder's ability to comply, and does not indicate a number of flights during which the ozone concentration may exceed the limit. This requirement of statistical reliability has been expressly stated in the final rule.

*Ozone Sensors*

The mandatory use of onboard ozone sensors was recommended by a number of commenters. However, the FAA has determined that current technology is available to effectively control cabin ozone levels without the added requirement that flight crewmembers monitor ozone levels. Manufacturers and research organizations providing responses to the notice indicate that effective mechanical or electronic devices have been developed and are producing acceptable test results. The FAA knows of four manufacturers currently conducting airborne tests of control devices, and anticipates that competitive development will produce satisfactory control devices that will be proven by use of scientific test instruments. These amendments require a showing that any device proposed for use in compliance with these regulations function as intended, and the FAA will conduct spot checks to ensure their effectiveness.

*Passenger Warning*

Two commenters recommended that passengers be warned about the physical effects of ozone exposure. However, the FAA has determined that a warning is unnecessary, since exposure to ozone levels at or below the levels set forth in these regulations will not result in noticeable discomfort to most passengers and crewmembers. Those persons with special respiratory conditions, who may be sensitive to very low levels of ozone, can reasonably be expected to have been advised by their physicians of problems that may be encountered in high-altitude flight.

*Opposing Comments*

Comments objecting to the proposed rule included U.S. and foreign air carriers, airline organizations and associations, a major industrial corporation, and two physicians.

The commenters considered the proposed rule to be premature, stating that not enough information has been gathered concerning acceptable levels of ozone; that there is a lack of dependable methods to predict ozone levels on a flight-by-flight basis; that ozone attenuation factors are unknown for aircraft other than the Boeing 747; and that a compliance period of 6 months is inadequate because catalytic converter technology is not sufficiently advanced.

*Ozone Research*

These commenters were generally of the opinion that research on ozone exposure levels is incomplete and that control methods should not be required until physiological and technological studies in progress have been completed. However, a large number of government and industry research studies have been conducted to determine the deleterious effects of ozone exposure. All known studies have been thoroughly reviewed, and the FAA notes that with rare exception these studies are compatible with the findings of its own study conducted by the Civil Aeromedical Institute. For that reason, the FAA considers the maximum ozone exposure levels set forth in these regulations to be necessary.

FAA expects that ongoing research into the physiological effects of ozone and effective methods for its control will continue to provide a greater understanding of its effects on persons and will increasingly provide more efficient methods to eliminate excessive ozone quantities. Nevertheless, current technology is adequate to eliminate excessive levels of ozone in aircraft cabins. The FAA has determined that the available filters and catalytic converters can be installed on all affected aircraft types, and as improved filtration devices are available, they can be installed with little or no further aircraft modification.

*Compliance Period*

In response to recommendations that the compliance period in Part 121 be extended, that period has been changed to 12 months in the final rule. The longer period will still result in compliance prior to the 1981 ozone season, but will allow further time for compliance during the summer and fall of 1980, when the concentration of atmospheric ozone is lower.

In addition the new Part 121 requirement allows a certificate holder to obtain an authorization to deviate from these requirements by an amendment to its operations specifications, if it shows that due to circumstances beyond its control or to unreasonable economic burden it cannot comply for a specified period of time, and submits a plan acceptable to the Administrator to effect compliance to the extent possible. A deviation will be authorized in circumstances such as equipment delivery delays or short-term use of aircraft, when the certificate holder shows that through flight planning or other means it will attempt to avoid areas of high ozone concentration.

*Economic Costs*

Notice 75-15 solicited comments from all interested parties on the economic effect of the proposed amendments. While the FAA did not receive detailed cost information from commenters, sufficient information does exist to estimate the possible economic cost for the aircraft operated by Part 121 certificate holders that are likely to be affected by this amendment.

The aircraft most susceptible to high concentrations of ozone are those capable of operation for extended periods in over-the-pole flights and in the higher latitudes. At present, these aircraft include the B-747, B-707, DC-8, DC-10, and L-1011 aircraft. The FAA estimates that there are approximately 780 of these aircraft now being operated by Part 121 certificate holders. About 500 of these are used in operations in the high latitudes, and may need mechanical modification to effectively control cabin ozone levels. Although no detailed cost estimates were supplied by air carriers to the FAA from modification of aircraft by type, cost information supplied by

two manufacturing sources indicates that the unit price for a single catalytic converter will be between $3,500 and $7,000. The FAA estimates that installation costs for each converter will run from $1,000 to $1,350 per unit. Each aircraft involved is expected to need from two to three filters, depending on the design of the pressurization distribution system. Each converter is expected to remain in service more than 3 years.

If all 500 aircraft are modified, the range of procurement cost for initial installation of catalytic converters would be between $5.2 million and $10.5 million. Since 1 year is being allowed for compliance, it is expected that installation will occur during regular aircraft maintenance, and the total cost of installation is expected to be about $2.0 million.

*Editorial Changes*

Proposed § 121.578 has been adopted as § 121.220 to include it as a special airworthiness requirement under Subpart J of Part 121.

Sections 25.832(c) and 121.220(d) have been changed to clarify what must be done to show compliance with the standards imposed by those sections.

The Amendment

Accordingly, Parts 25 and 121 of the Federal Aviation Regulations (14 CFR Parts 25 and 121) are amended, effective February 20, 1980, as follows:

## PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. By the addition of a new § 25.832 to Part 25 to read as follows:

**§ 25.832 Cabin ozone concentration.**

(a) The airplane cabin ozone concentration during flight above flight level 180 must be shown not to exceed—

(1) 0.25 parts per million by volume, sea level equivalent, at any point in time; and

(2) 0.1 parts per million by volume, sea level equivalent, time-weighted average during any 3-hour interval;

(b) For the purpose of this section, "sea level equivalent" refers to conditions of 25° C and 760 millimeters of mercury pressure.

(c) Compliance with this section must be shown by analysis or tests based on airplane operational procedures and performance limitations, that demonstrate that either—

(1) The airplane cannot be operated at an altitude which would result in cabin ozone concentrations exceeding the limits prescribed by paragraph (a) of this section; or

(2) The airplane ventilation system, including any ozone control equipment, will maintain cabin ozone concentrations at or below the limits prescribed by paragraph (a) of this section.

## PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

2. By the addition of a new § 121.220 to Part 121 to read as follows:

**§ 121.220 Cabin ozone concentration.**

(a) For the purpose of this section, the following definitions apply:

(1) "Flight segment" means scheduled nonstop flight time between two airports.

(2) "Sea level equivalent" refers to conditions of 25° C and 760 millimeters of mercury pressure.

(b) Except as provided in paragraph (d) of this section, after February 20, 1981, no certificate holder may operate a transport category airplane above flight level 180 unless it has successfully demonstrated to the Administrator that the concentration of ozone inside the cabin will not exceed—

(1) 0.25 parts per million by volume, sea level equivalent, at any point in time; and

(2) For each flight segment that exceeds 4 hours, 0.1 parts per million by volume, sea level equivalent, time-weighted average over that flight segment.

(c) Compliance with this section must be shown by analysis or tests, based on either airplane operational procedures and performance limitations or the certificate holder's operations. The analysis or tests must show either of the following:

(1) Atmospheric ozone statistics indicate, with a statistical confidence of at least 84%, that at the altitudes and locations at which the airplane will be operated cabin ozone concentrations will not exceed the limits prescribed by paragraph (b) of this section.

(2) The airplane ventilation system, including any ozone control equipment, will maintain cabin ozone concentrations at or below the limits prescribed by paragraph (b) of this section.

(d) A certificate holder may obtain an authorization to deviate from the requirements of paragraph (b) of this section, by an amendment to its operations specifications, if—

(1) It shows that due to circumstances beyond its control or to unreasonable economic burden it cannot comply for a specified period of time; and

(2) It has submitted a plan acceptable to the Administrator to effect compliance to the extent possible.

(Secs. 313, 601, 603, 604, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354, 1421, 1423, 1424); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

Note.—The FAA has determined that this document involves a proposed regulation which is significant under Executive Order 12044 as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A copy of the final regulatory evaluation prepared for this action is contained in the regulatory docket. A copy of it may be obtained by contacting the person identified above under the caption "FOR FURTHER INFORMATION CONTACT:".

Issued in Washington, D.C., on January 15, 1980.

Langhorne Bond,

*Administrator.*

[FR Doc. 80-1825 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

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## 14 CFR Part 39

**[Docket No. 79-EA-55; Amdt. 39-3671]**

## AVCO Lycoming; Airworthiness Directives

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment issues a new airworthiness directive applicable to AVCO Lycoming type aircraft engines which requires an alteration of the turbocharger oil drain flange P/N LW-14391 by replacement with P/N LW-16036. Failure of the flange could result in loss of engine oil and ultimate engine failure.

**EFFECTIVE DATE:** January 22, 1980. Compliance is required as set forth in the AD.

**ADDRESSES:** AVCO Lycoming Service Bulletins may be acquired from the manufacturer at Williamsport, Pennsylvania 17701.

**FOR FURTHER INFORMATION CONTACT:** E. Manzi, Propulsion Section, AEA-214, Engineering and Manufacturing Branch, Federal Building, J.F.K. International Airport, Jamaica, New York 11430; Tel. 212-995-2894.

**SUPPLEMENTARY INFORMATION:** There had been reports of failures of the oil drain tube and flange assemblies. The manufacturer has designed and installed a steel oil drain flange P/N LW-16036 as a replacement for the aluminum flange. In view of the air safety problem, notice and public procedure hereon are

impractical, and the amendment may be made effective in less than 30 days.

### Adoption of the Amendment

Accordingly, and pursuant to the authority delegated to me by the Administrator, § 39.13 of the Federal Aviation Regulations (14 CFR 39.13) is amended by issuing a new airworthiness directive, as follows:

AVCO Lycoming: Applies to TO-360-C1A6D series engines serial numbers L-101-69A through L-264-69A except L-200-69A, L-246-69A and L-254-69A and all TO-360-C1A6D series engines overhauled (also known as remanufactured) by Lycoming prior to May 4, 1977.

Compliance required within the next 50 hours in service after the effective date of this AD, unless already accomplished.

To prevent possible loss of engine oil due to the failure of turbocharger oil drain flange P/N LW-14391, replace the turbocharger oil drain flange with oil drain flange P/N LW-16036 in accordance with AVCO Lycoming Service Bulletin No. 426 or FAA-approved equivalent.

Equivalent methods of compliance must be approved by the Chief, Engineering and Manufacturing Branch, Federal Aviation Administration Eastern Region.

Upon submission of substantiating data by an owner or operator through an FAA Maintenance Inspector, the Chief, Engineering and Manufacturing Branch, FAA Eastern Region may adjust the compliance time specified in this AD.

Effective Date: This amendment is effective January 22, 1980.

(Sec. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended, 49 U.S.C. 1354(a), 1421, and 1423; Sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c); and 14 CFR 11.89.)

Issued in Jamaica, New York, on January 8, 1980.

Murray E. Smith,

*Director, Eastern Region.*

[FR Doc. 80-1613 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 39

**[Docket No. 79-EA-52; Amdt. 39-3672]**

## DeHavilland; Airworthiness Directives

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment issues a new airworthiness directive, applicable to DeHavilland DHC-7 type airplanes, which requires an inspection of the main landing gear frame bolts for correct torque and replacement where necessary. This amendment is necessary because of reports of looseness in the bolts which could result in structural failure.

**EFFECTIVE DATE:** January 24, 1980. Compliance is required as set forth in the AD.

**ADDRESSES:** DeHavilland Service Bulletins may be acquired from the manufacturer at Downsview, Ontario, Canada M3K 145.

**FOR FURTHER INFORMATION CONTACT:** C. Birkenholz, Airframe Section, AEA-212, Engineering and Manufacturing Branch, Federal Building, J.F.K. International Airport, Jamaica, New York 11430; Tel. 212-995-2875.

**SUPPLEMENTARY INFORMATION:** In view of the continuing air safety problem, notice and public procedure hereon are impractical, and the amendment may be made effective in less than 30 days.

### Adoption of the Amendment

Accordingly, and pursuant to the authority delegated to me by the Administrator, § 39.13 of the Federal Aviation Regulations (14 CFR 39.13) is amended, by issuing a new airworthiness directive, as follows:

DeHavilland: Applies to DHC-7 airplanes, S/N 1 through 13 inclusive, certificated in all categories.

Compliance required as indicated, unless already accomplished.

To prevent possible landing gear support structure failure due to looseness of the main landing gear frame attachment bolts, accomplish the following:

1. Within the next 25 hours in service after the effective date of this AD, unless previously accomplished within the last 295 hours in service, inspect the main landing gear frame bolts, P/N MS21250H10042, for evidence of improper torque.

2. If evidence of improper torque is found at any bolt location,

a. cut an access hole at all four bolt locations as detailed in DeHavilland Service Bulletin No. 7-54-4, ACCOMPLISHMENT INSTRUCTIONS, Page 2, paragraphs 1 and 2. Retorque all bolts to 1400-1650 inch-pounds and cover the access holes with snap hole plug P/N CSP80-20 or equivalent. Mark the end of the bolt, nut and adjacent structure with a red line. Visually inspect the red marking at each location for signs of movement at intervals not to exceed 320 hours in service from last inspection until the modification in paragraph 2.b. is accomplished, or

b. incorporate DeHavilland modification (Ref. S/B 7-54-4).

3. For bolts that are found to be properly torqued, mark and inspect bolts as above in paragraph 2.a. until the modification is accomplished.

4. Incorporate DeHavilland modification in accordance with S/B No. 7-54-4, ACCOMPLISHMENT INSTRUCTIONS, or equivalent within 1900 hours in service from the initial inspection in paragraph 1.

5. Equivalent parts and modification must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

**EFFECTIVE DATE:** This amendment is effective January 24, 1980.

(Secs. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended, 49 U.S.C. 1354(a), 1421, and 1423; Sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c); and 14 CFR 11.89.)

Issued in Jamaica, New York, on January 10, 1980.

Lonnie D. Parrish,

*Acting Director, Eastern Region.*

[FR Doc. 80-1614 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 39

**[Airworthiness Docket No. 79-ASW-51; Amdt. 39-3670]**

## Mooney M20K Airplanes; Airworthiness Directives

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) which requires reinforcement of the fuselage tubular structure with a clamped split-sleeve on Mooney M20K airplanes. The AD is needed to prevent failure of the fuselage tubular structure which could result in loss of the airplane. This AD is being issued because of failures of the fuselage tubular structure of the M20K airplane during static testing.

**DATES:** Effective—February 1, 1980. Compliance required within the next 90 days after the effective date of this AD, unless already accomplished.

**ADDRESSES:** The applicable service bulletins may be obtained from the Service Manager, Mooney Aircraft Corporation, P.O. Box 72, Kerrville, Texas 78028.

A copy of the service bulletin is contained in the Rules Docket of the Regional Counsel, Southwest Region, FAA, 4400 Blue Mound Road, Fort Worth, Texas 76101.

**FOR FURTHER INFORMATION CONTACT:** Michele M. Owsley, Airframe Section, Engineering and Manufacturing Branch, ASW-212, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas, telephone number (817) 624-4911, extension 516.

**SUPPLEMENTARY INFORMATION:** A proposal to amend Part 39 of the Federal Aviation Regulations to include an airworthiness directive requiring reinforcement of the fuselage tubular structure of Mooney M20K airplanes was published in the Federal Register at 43 FR 62907. The proposal was prompted by FAA's determination that the fuselage tubular structure on Mooney

M20K airplanes is understrength for certain gust load conditions. This condition could result in the loss of the aircraft.

Interested persons have been afforded an opportunity to participate in the making of the amendment. One commentator characterized as unjustified the statement included in the summary and supplementary information which accompanied the proposal, namely, "failure . . . which could result in loss of the airplane." This commentator referred to over 20 years of satisfactory service of the fuselage tubular structure and the static test history on this model. FAA does not intend to discredit the satisfactory service experience of the fuselage tubular structure; however, testing of the assembly has demonstrated that the failures are unpredictable in location and severity. FAA must consider all possible safety implications, including those which could result in the loss of the aircraft. The wording, therefore, remains unchanged.

### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) is amended by adding the following new airworthiness directive:

Mooney Aircraft Corporation. Applies to Models M20K airplanes, Serial Numbers 25-0001 through 25-0247, certificated in all categories.

Compliance is required as indicated unless already accomplished.

To prevent possible failure of the fuselage tubular structure, accomplish the following:

1. Within the next 90 days after the effective date of the AD, reinforce the lower right fuselage tubular structure with a split-sleeve and clamps in accordance with Mooney Service Bulletin No. M20-220 dated November 16, 1979, or equivalent methods approved by the Chief, Engineering and Manufacturing Branch, FAA, Southwest Region.

2. Aircraft may be flown in accordance with FAR 21.197(a)(1) to a location where the modification required by this AD may be accomplished.

This amendment becomes effective February 1, 1980.

(Secs. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a), 1421, and 1423); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); 14 CFR 11.89).

Issued in Fort Worth, Texas, on January 7, 1980.

C. R. Melugin, Jr.,

*Director, Southwest Region.*

[FR Doc. 80-1612 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 71

[Airspace Docket No. 79-ASW-47]

## Alteration of Transition Area; Canadian, Tex.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The nature of the action being taken is to alter the transition area at Canadian, Tex. The intended effect of the action is to provide additional controlled airspace for aircraft executing a new instrument approach procedure to the Hemphill County Airport. The circumstances which created the need for the action are the establishment of a new instrument approach procedure using the nondirectional radio beacon (NDB) located on the airport and a change to incorporate a more accurate airport geographical point and location of the NDB.

**EFFECTIVE DATE:** March 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Manuel R. Hugonnett, Airspace and Procedures Branch (ASW-536), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone 817-624-4911, extension 302.

**SUPPLEMENTARY INFORMATION:**

### History

On November 19, 1979, a notice of proposed rule making was published in the Federal Register (44 FR 66204) stating that the Federal Aviation Administration proposed to alter the Canadian, Tex., transition area. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the Federal Aviation Administration. Comments were received without objections. Except for editorial changes this amendment is that proposed in the notice.

### The Rule

This amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) alters the Canadian, Tex., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing established and proposed instrument approach procedures to the Hemphill County Airport.

### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, March 20, 1980, as follows:

In Subpart G, 71.181 (44 FR 442), the following transition area is altered as follows:

Canadian, Tex.

That airspace extending upward from 700 feet above the surface within a 5.5-mile radius of the Hemphill County Airport, Canadian, Tex. (latitude 35°53'42"N., longitude 100°24'13"W.), and within 3 miles each side of the 056° and 218° bearings to the NDB (latitude 35°53'28"N., longitude 100°24'18"W.), extending from the NDB to 8.5 miles southwest and northeast.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on January 9, 1980.

C. R. Melugin, Jr.,

*Director, Southwest Region.*

[FR Doc. 80-1616 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 71

[Airspace Docket No. 79-AL-20]

## Designation of Transition Area St. Marys, Alaska

**AGENCY:** Federal Aviation Administration (FAA) DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment designates a transition area at St. Marys, Alaska, to protect aircraft executing an instrument approach procedure to the St. Marys airport using approach procedures based on the St. Marys NDB or ILS. This action lowers the base of controlled airspace from 1,200 feet AGL to 700 feet AGL in that area directly beneath B-27 and V-506 and also designates controlled airspace extending upward from 700 feet above the surface in that portion of the transition area west of B-27. The need for a transition area was created when IFR approach procedures were established at St. Marys. However, the lack of a capability, prior to 1979, to communicate with aircraft on approach

made the establishment of a transition area impractical.

**EFFECTIVE DATE:** 0901 GMT March 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Jerry Wylie, Operations, Procedures, and Airspace Branch, Air Traffic Division, Federal Aviation Administration, Box 14, 701 C Street, Anchorage, Alaska 99513, telephone (907) 271-5903.

**SUPPLEMENTARY INFORMATION:** Subpart 71.181 (45 FR 445 of the Far Part 71, last published on January 2, 1980, contains the description of transition areas designated to provide controlled airspace for the benefit of aircraft conducting IFR flight. Designation of a transition area at St. Marys, Alaska, will necessitate an amendment to this subpart. A Notice of Proposed Rule Making (NPRM) was published in the Federal Register on October 25, 1979 (44 FR 61378) which omitted a part of the transition area description. A correction containing the omitted portion of the transition area description was published in the Federal Register on December 6, 1979 (44 FR 70181). No objections were received to the NPRM.

### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 71.181 of the Federal Aviation Regulations (14 CFR Part 71) as republished (45 FR 445) is amended by designating the St. Marys, Alaska, transition area as follows:

St. Marys, Alaska

That airspace extending upward from 700 feet above the surface within 4.5 miles east and 9.5 miles west of the 198° True (180°M) bearing from the St. Marys NDB, extending from the NDB to 18.5 miles south of the NDB and within 9.5 miles west of the 351° True (333°M) bearing from the St. Marys NDB, and 9.5 miles east of the 002° True (344°M) bearing from the St. Marys NDB, including that airspace between these bearings, extending from the NDB to 21 miles north of the NDB.

(Sec. 307(a) of the Federal Aviation Act of 1958 (49 U.S.C. 1348(a)); sec. 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.65.)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 1134, February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, and anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Anchorage, Alaska, on January 10, 1980.

Robert L. Faith,

*Director, Alaskan Region.*

[FR Doc. 80-1615 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13

## 14 CFR Part 71

**[Airspace Docket No. 79-ASW-52]**

## Alteration of Transition Area: Follett, Tex.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The nature of the action being taken is to alter the transition area at Follett, Tex. The intended effect of the action is to provide additional controlled airspace for aircraft executing a new instrument approach procedure to the Follett-Lipscomb County Airport. The circumstance which created the need for the action is the establishment of a nondirectional radio beacon (NDB) on the airport.

**EFFECTIVE DATE:** March 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Manuel R. Hugonnett, Airspace and Procedures Branch (ASW-536), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone 817-624-4911, extension 302.

**SUPPLEMENTARY INFORMATION:**

### History

On November 19, 1979, a notice of proposed rule making was published in the Federal Register (44 FR 66205) stating that the Federal Aviation Administration proposed to alter the Follett, Tex., transition area. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the Federal Aviation Administration. Comments were received without objections. Except for editorial changes this amendment is that proposed in the notice.

### The Rule

This amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) alters the Follett, Tex., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing established and proposed instrument approach procedures to the Follett-Lipscomb County Airport.

### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, March 20, 1980, as follows:

In Subpart G, 71.181 (44 FR 442), the following transition area is altered as follows:

Follett, Tex.

That airspace extending upward from 700 feet above the surface within a 7-mile radius of the Follett-Libscomb County Airport (latitude 36°26'26"N., longitude 100°07'24"W., and within 4 miles each side of the 189° bearing from the NDB (latitude 36°20'37"N., longitude 100°07'16.5"W.), extending from the 7-mile radius area to 8.5 miles south of the NDB.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on January 9, 1980.

F. E. Whitfield,

*Acting Director, Southwest Region.*

[FR Doc. 80-1601 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 71

**[Airspace Docket No. 79-ASW-50]**

## Alteration of Transition Area: Hope, Ark.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The nature of the action being taken is to alter the transition area at Hope, Ark. The intended effect of the action is to provide additional controlled airspace for aircraft executing a new instrument approach procedure to the Hope Municipal Airport. The circumstance which created the need for the action is the establishment of a nondirectional radio beacon (NDB) located on the airport.

**EFFECTIVE DATE:** March 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Stephenson, Airspace and Procedures Branch (ASW-535), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O.

Box 1689, Fort Worth, Texas 76101; telephone 817–624–4911, extension 302.

**SUPPLEMENTARY INFORMATION:**

History

On November 15, 1979, a notice of proposed rule making was published in the Federal Register (44 FR 65768) stating that the Federal Aviation Administration proposed to alter the Hope, Ark., transition area. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the Federal Aviation Administration. Comments were received without objections. Except for editorial changes this amendment is that proposed in the notice.

The Rule

This amendment to subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) alters the Hope, Ark., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing established and proposed instrument approach procedures to the Hope Municipal Airport.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, March 20, 1980, as follows.

In Subpart G, 71.181 (44 FR 442), the following transition area is altered by adding the following:

Hope, Ark.

* * * and within 3 miles each side of the 355° bearing from the NDB (latitude 33°43'06"N., longitude 93°39'26"N.) extending from the 6-mile radius area to 8.5 miles north of the NDB.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c).)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on January 9, 1980.

F. E. Whitfield,

*Acting Director, Southwest Region.*

[FR Doc. 80-1802 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 71

[Airspace Docket No. 79-ASW-67]

## Alteration of Transition Area: Patterson, Louisiana

**AGENCY:** Federal Aviation Adminsitration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The nature of the action being taken is to alter the transition area at Patterson, LA. The intended effect of the action is to provide controlled airspace for aircraft executing instrument approach procedures to the Harry P. Williams Memorial Airport. The circumstance which created the need for the action is the review of the current transition area revealed the controlled airspace is not properly described and a reduction of controlled airspace will adequately serve the airport.

**EFFECTIVE DATE:** March 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Stephenson, Airspace and Procedures Branch (ASW–535), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone 817–624–4911, extension 302.

**SUPPLEMENTARY INFORMATION:** The review of the transition area at Patterson, LA., revealed that the final approach course for the nondirectional radio beacon (NDB) instrument approach to Runway 05 was incorrect and that the transition area radius is in excess of that needed for the type of aircraft using the airport. This requires amendment to the designated airspace for the protection of aircraft executing instrument approach procedures to the airport. Since this action reduces the airspace required for aircraft executing instrument approach procedures, circulation and public notice of this action is not considered necessary.

The Rule

This amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) alters the Patterson, LA., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing established and proposed instrument approach procedures to the Harry P. Williams Memorial Airport.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, March 20, 1980, as follows.

In Subpart G, 71.181 (44 FR 442), the following transition area is altered by deleting the present description and substituting the following:

Patterson, La.

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of the Harry P. Williams Memorial Airport (latitude 29°42'40"N., longitude 91°20'18"W.) and within 3 miles each side of the 233° bearing from the NDB (latitude 29°42'53"N., longitude 91°20'12"W.) extending from the 6.5-mile radius area to 8.5 miles southwest of the NDB; and within 2.5 miles each side 276° radial of the Tibby VORTAC (latitude 29°39'51"N., longitude 90°49'44"W.) extending from the 6.5-mile radius area to 7.5 miles east of the airport.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on January 9, 1980.

F. E. Whitfield,

*Acting Director, Southwest Region.*

[FR Doc. 80-1803 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 73

[Airspace Docket No. 79-GL-23]

## Alteration of Restricted Area

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment increases the time of designation of the Jefferson Proving Ground, Ind., Restricted Area R-3403A to permit additional testing of munitions that require photographic coverage for evaluation. This action helps to provide for the safe and efficient use of the navigable airspace in this area.

**EFFECTIVE DATE:** March 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426–3715.

**SUPPLEMENTARY INFORMATION:**

History

On November 15, 1979, the FAA proposed to amend Part 73 of the Federal Aviation Regulations (14 CFR Part 73) to slightly increase the time of designation of R-3403A (44 FR 65770). Interested persons were invited to participate in the rulemaking proceeding by submitting written comments on the proposal to the FAA. The only comment received expressed no objection. The Department of Army has stated that the requirements of the National Environmental Policy Act (NEPA) have been met. Section 73.34 of Part 73 was republished January 2, 1980, (45 FR 700). This amendment is the same as proposed in the notice.

The Rule

This amendment to Part 73 of the Federal Aviation Regulations (14 CFR Part 73) changes the time of designation of R-3403A from "Daily, 0800 to 2300 local time." to "Daily, 0630 to 2400 local time." This action permits maximum utilization of daylight hours for testing programs which require photographic coverage for evaluation.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Adminstrator, § 73.34 of Part 73 of the Federal Aviation Regulations (14 CFR Part 73) as republished (45 FR 700) is amended, effective 0901 GMT, March 20, 1980, as follows:

Under R-3403A Jefferson Proving Ground, Ind., in time of designation, "Daily, 0800 to 2300 local time." is deleted and "Daily, 0630 to 2400 local time." is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on January 15, 1980.

William E. Broadwater,

*Chief, Airspace and Air Traffic Rules Division.*

[FR Doc. 80-1604 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

### 14 CFR Part 1203

### Information Security Program

**AGENCY:** National Aeronautics and Space Administration.

**ACTION:** Final rule.

**SUMMARY:** This amendment revises the guidelines for classifying, declassifying, and downgrading information and material under the NASA Information Security Program in 44 FR 34913-34922, June 18, 1979. This amendment makes editorial changes related to those procedures.

**EFFECTIVE DATE:** January 21, 1980.

**ADDRESS:** Chief, NASA Security Office, National Aeronautics and Space Administration, Washington, D.C. 20546.

**FOR FURTHER INFORMATION CONTACT:** Arnold K. Daue, Telephone (202) 755-3400.

14 CFR Part 1203 is amended by revising § 1203.202 and § 1203.604 as follows:

**§ 1203.202 [Amended]**

1. § 1203.202 (e) is revised to read as follows:

* * * * *

(e) Directors of Field Installations are responsible for:

(1) Developing proposed Security Classification Guides.

(2) Ensuring that classified information or material prepared in their respective installations is appropriately marked.

(3) Ensuring that material proposed for public release is reviewed to eliminate classified information.

(4) Designating Security Classification Officers at their respective installations, to whom responsibilities listed in paragraphs (e) (1), (2), and (3) of this section may be reassigned.

2. § 1203.202(f) is revised to read as follows:

(f) The NASA Security Classification Manager, NASA Security Office, NASA Headquarters, who serves as a member of the NASA Information Security Program Committee, is responsible for the NASA-wide coordination of security classification matters and for the development of proposed Security Classification Guides for Headquarters.

3. § 1203.202(g) is revised to read as follows:

(g) The Chief, NASA Security Office, is responsible for:

(1) Conducting an active oversight program to ensure effective implementation of the Order.

(2) Establishing procedures for the safeguarding of classified information or material (e.g., accountability, control, access, storage, transmission, marking, etc.) and for ensuring that such procedures are systematically reviewed and those which are duplicative or unnecessary are eliminated.

(3) Appointing the Headquarters Security Classification Officer.

**§ 1203.604 [Amended]**

4. Section 1203.604(d)(2)(i) is revised to read as follows:

(i) The request is in writing and reasonably describes the information sought with sufficient particularity to enable the installation to identify it.

(42 U.S.C. 2451 et seq and E.O. 12065)

Margaret M. Herring,

*Alternate Federal Liaison Officer.*

[FR Doc. 80-1795 Filed 1-18-80; 8:45 am]

BILLING CODE 7510-01-M

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

### 18 CFR Parts 35 and 154

**[Docket No. RM77-22]**

### Rate of Interest on Amounts Held Subject To Refund; Order Clarifying Orders Nos. 47 and 47-A

**AGENCY:** Federal Energy Regulatory Commission, DOE.

**ACTION:** Order Clarifying Order Nos. 47 and 47-A.

**SUMMARY:** This Order contains corrections to Order No. 47 (RM77-22, 44 FR 53538, September 14, 1979) and Order No. 47-A (RM77-22, 44 FR 65740, November 15, 1979). Calculations of the applicable average prime rate are to be based on the prime rate values published in the *Federal Reserve Bulletin*, or in the Federal Reserve's "Selected Interest Rates" (Statistical Release G. 13), for the fourth, third, and second months preceding the first month of each calendar quarter. The rates of interest prescribed by Order No. 47 (Docket No. RM77-22, 44 FR 65740, November 15, 1979) will not apply where a different rate of interest has been established by court order or by a Commission order, which was final and non-appealable on or before September 10, 1979, approving a settlement agreement.

**EFFECTIVE DATE:** October 1, 1979.

**FOR FURTHER INFORMATION CONTACT:** Clarence C. Burris, Office of the General Counsel, Federal Energy Regulatory

Commission, Room 8106–A, 825 North Capitol Street, NE., Washington, D.C. 20426, (202) 357–8161.

December 26, 1979.

On September 10, 1979, the Federal Energy Regulatory Commission issued Order No. 47 in the above-referenced docket which established (1) a new, self-adjusting compounded interest rate on refunds, (2) a new, self-adjusting compounded carrying charge rate on deferred purchased gas costs, and (3) a reduction in the number of required refund reports, all to become effective October 1, 1979. By Order No. 47–A, issued November 8, 1979, the Commission denied rehearing of Order No. 47, and clarified the Commission's position that compounding is intended to apply after October 1, 1979, to all interest, regardless of when it accumulated.

Motions for reconsideration and clarification of Order Nos. 47 and 47–A were filed by Cities Service Gas Company (Cities Service) and Tennessee Gas Pipeline Company, Midwestern Gas Transmission Company, and East Tennessee Natural Gas Company (Companies), on November 27, 1979.

Companies noted a mechanical problem concerning operation of the Commission's new refund interest regulations. The Commission's interest rates for a given calendar quarter now reflect the arithmetic mean of the prime rate values for the second, third, and fourth months preceding the quarter, which values are published in the monthly *Federal Reserve Bulletin (FRB).*[1] Companies state that it is not possible to calculate the applicable interest rate for a quarter at the very beginning of that quarter, however, because the monthly issue of the *FRB* necessary to perform the calculation is not available until sometime in the middle of the first month of the quarter. Specifically, they state that it is the prime rate value for the second month preceding a calendar quarter that will not be known until the *FRB* becomes available. Therefore, Companies suggest that we revise our regulations to provide that interest calculations reflect the prime rate values for the third, fourth, and fifth months preceding the calendar quarter.

It is true that the prime rate value for November, for instance, will not generally be available from the December *FRB* until sometime in mid-January.[2] That November value is nevertheless available from the Federal Reserve shortly after the end of November, albeit from sources less well-known than the *FRB*. For example, a monthly Federal Reserve statistical release entitled "Selected Interest Rates" (Statistical Release G.13) includes the prime rate value for the immediately preceding month, and is available within ten days after the end of the month. Thus, the prime rate value for November will be available in December's Statistical Release G.13 by December 10, in sufficient time to permit calculation of the applicable interest rate beginning January 1, the start of the next calendar quarter.

In light of the foregoing discussion, it is not necessary to revise our refund regulations so as to require refund interest rates to reflect the prime rate values for the third, fourth, and fifth months preceding the calendar quarter, as suggested by Companies. The currentness inherent in the refund regulations as presently structured may be preserved simply by reference to another source for prime rate information. However, in order to eliminate any uncertainty that the present regulations may have caused, and keep the refund interest rate as current as possible, we will amend the regulations to reflect Statistical Release G.13 as an acceptable alternate source of prime rate information.

Some companies may, however, continue to have difficulty in obtaining the data necessary to make calculations so as to enable them to make refunds during the first few weeks of a calendar quarter. Under those limited circumstances, we will authorize the Director of the Office of Electric Power and the Director of the Office of Pipeline and Producer Regulation, as appropriate, to assist the company in obtaining the necessary data upon reasonable request.

Cities Service and Companies also request the Commission to state clearly that, consistent with prior Commission practice, the rates of interest prescribed by Order No. 47 will not apply where a different stipulated rate of interest has been established by court order or by Commission order approving a settlement agreement. This policy is in line with that followed both by this Commission and its predecessor, the Federal Power Commission. *Cities Service Gas Company,* Docket No. RP74–4, Opinion No. 24–A, issued October 31, 1978; *Tennessee Gas Pipeline Company,* Docket Nos. RP71–16, RP71–57, and RP72–1, order issued April 15, 1977; *Northern Natural Gas Company,* Docket No. RP74–80, order issued November 5, 1976; *Columbia Gas Transmission Corp., et al.,* Docket No. RP74–81, *et al.,* order issued November 5, 1976. The following language from Order No. 513–A, which established the refund interest rates that preceded those now effective, is equally applicable here:

> Where there is a final, non-appealable Commission order directing the disbursement of refunds of amounts collected or held during the time periods which are the subject of this order, the Commission does not intend to reconsider or modify those individual orders. The orders will stand as issued. However, where such orders have been issued but are not final and non-appealable on the date of this order, the natural gas company or public utility should, without further motion by the parties in the individual dockets, be required to comply with this order.

Thus, the rates of interest prescribed by Order No. 47 will not apply where a different stipulated rate of interest has been established by court order, or by a Commission order approving a settlement agreement which became final and non-appealable by September 10, 1979.

Order No. 47 made the revised interest rate rule effective as of October 1, 1979. These amendments merely clarify the intent of the regulations adopted in Order No. 47. Therefore, the amendments are hereby made effective as of October 1, 1979.

(Sec. 16, Natural Gas Act, 15 U.S.C. 7170; sec. 309, Federal Power Act, 16 U.S.C. 825h; Department of Energy Organization Act, Pub. L. 95–91; E.O. 12009, 42 FR 46267)

In consideration of the foregoing, Parts 35 and 154, of Chapter 1, Title 18, of the Code of Federal Regulations are amended as set forth below, effective October 1, 1979.

By the Commission.

Kenneth F. Plumb,

*Secretary.*

## PART 35—FILING OF RATE SCHEDULES

1. Section 35.19a is amended in paragraph (a)(2)(iii)(A) to read as follows:

**§ 35.19a Refund requirements under suspension orders.**

(a) *Refunds.* * * *

(2) * * *

(iii)(A) at an average prime rate for each calendar quarter on all excessive rates or charges held (including all interest applicable to such rates or

[1] These values are generally found at page A–26, Table 1–34 in the *FRB*.

[2] In view of this recognition, we would change preamble statements about data availability which appear in Order No. 47 (Page 19 and Appendix A's Footnote ** at Page 36). Both references should now simply allude to the *FRB* that is published during the first month of a quarter.

charges) on or after October 1, 1979. The applicable average prime rate for each calendar quarter shall be the arithmetic mean, to the nearest one-hundredth of one percent, of the prime rate values published in the *Federal Reserve Bulletin,* or in the Federal Reserve's "Selected Interest Rates" (Statistical Release G. 13), for the fourth, third, and second months preceding the first month of the calendar quarter. * * *

* * * * *

## PART 154—RATE SCHEDULES AND TARIFFS

2. Section 154.67 is amended in paragraph (d)(2)(iii)(A) to read as follows:

**§ 154.67 Suspended changes in rate schedules; motions to make effective at end of period of suspension; procedure.**

* * * * *

(d) *Refunds.* * * *

(2) * * *

(iii)(A) At an average prime rate for each calendar quarter on all excessive rates or charges held (including all interest applicable to such rates and charges) on or after October 1, 1979. The applicable average prime rate for each calendar quarter shall be the arithmetic mean, to the nearest one-hundredth of one percent, of the prime rate values published in the *Federal Reserve Bulletin,* or in the Federal Reserve's "Selected Interest Rates" (Statistical Release G. 13), for the fourth, third, and second months preceding the first month of the calendar quarter. * * *

3. Section 154.102 is amended in paragraph (d)(2)(iii)(A) to read as follows:

**§ 154.102 Suspended changes in rate schedules; motions to make effective at end of period of suspension; procedure.**

* * * * *

(d) *Refunds.* * * *

(2) * * *

(iii)(A) At an average prime rate for each calendar quarter on all excessive rates or charges held (including all interest applicable to such rates or charges) on or after October 1, 1979. The applicable average prime rate for each calendar quarter shall be the arithmetic mean, to the nearest one-hundredth of one percent, of the prime rate values published in the *Federal Reserve Bulletin,* or in the Federal Reserve's "Selected Interest Rates" (Statistical Release G. 13), for the fourth, third and second months preceding the first month of the calendar quarter. * * *

[FR Doc. 80-1843 Filed 1-18-80; 8:45 am]
BILLING CODE 6450-01-M

**18 CFR Part 274**

**[Docket No. RM80-15; Order No. 65]**

## Final Regulations Implementing Filing Requirements of the Natural Gas Policy Act of 1978

**AGENCY:** Federal Energy Regulatory Commission, DOE.

**ACTION:** Final rule.

**SUMMARY:** On December 1, 1978, the Commission issued interim regulations to implement the provisions of the Natural Gas Policy Act of 1978 (NGPA) 44 FR 56448 *et seq.* Among those regulations was Subpart B of Part 274 which set forth filing requirements for applicants seeking well category determinations from jurisdictional agencies. On consideration of comments received since the issuance of December 1, 1978, and in light of subsequent amendments, the Commission is now amending Subpart B of Part 274. In addition, and except for those sections which deal with certain determinations for high cost natural gas priced under section 107 of the NGPA (§§ 274.205(b) through (d)), Subpart B is being issued as final regulations.

**EFFECTIVE DATE:** February 4, 1980.

**FOR FURTHER INFORMATION CONTACT:** Thomas P. Gross, Office of the General Counsel, Federal Energy Regulatory Commission, Room 4102-B, 825 North Capitol Street, NE., Washington, D.C. 20426, (202) 357-8026, or Clarence Burris, Office of the General Counsel, Federal Energy Regulatory Commission, Room 8106-A, 825 North Capitol Street, NE, Washington, D.C. 20426, (202) 357-8161.

January 4, 1980.

### I. Background

On December 1, 1978, the Federal Energy Regulatory Commission (Commission) issued interim regulations implementing the Natural Gas Policy Act of 1978 (NGPA) (43 FR 56448). Part 274, Subpart B of the interim regulations set forth the minimum filing requirements for applications to jurisdictional agencies for determinations of eligibility for various categories of natural gas. These categories are new natural gas and certain Outer Continental Shelf (OCS) gas (as defined in section 102 of the NGPA), natural gas from new onshore production wells (section 103), high-cost natural gas (section 107), and stripper well natural gas (section 108).

Comments were invited from interested parties on or before February 1, 1979. Timely comments were received from a number of parties representing gas producers, gas and oil pipelines, distributors of gas (including municipalities and cooperatives), oil shippers, and public interest groups. The Commission has taken into consideration these questions and comments in developing this final regulation.

Since its original issuance on December 1, 1978, Part 271 has been amended by Order No. 42 (Docket No. RM79-68, 44 FR 48180, August 17, 1979), Order No. 42-A (Docket No. RM79-68, 44 FR 69642, December 4, 1979), Order No. 43 (Docket No. RM79-72, 44 FR 49651, August 24, 1979), Order No. 43-A (Docket No. RM79-72, 44 FR 67108, Nov. 23, 1979), Order No. 44 (Docket No. RM79-73, 44 FR 49656, August 24, 1979) and Order No. 44-A (Docket No. RM79-73, 44 FR 66783, November 11, 1979). The present order reflects these prior amendments.

### II. Summary of Comments and Revisions to Part 274, Subpart B

Section 274.201 sets forth general requirements for filing applications for determinations of eligibility with jurisdictional agencies. Among other things, §§ 274.201(b) and 274.201(c) specify who may file an application for determination and who is required to sign the application. The Commission believes that any person designated by the jurisdictional agency as eligible to make filings under this subpart may also be the person who signs the application. Accordingly, § 274.201 is being amended by deleting paragraph (c) and amending § 274.201(b) to allow the person who is filing the application to sign the application.

Section 274.202 establishes filing requirements with jurisdictional agencies for applications for determinations for new natural gas (section 102). Among other things, this section requires the applicant to file an oath statement as to certain relevant facts, depending on whether the application for determination is for a new onshore well or a new onshore reservoir. Several comments stated that the oath requirements were confusing and too stringent.

After reviewing these comments, the Commission believes that the oath and filing requirements of this section are necessary and should not be modified. Although this section requires several different oath statements, this is necessary to verify the different facts associated with different categories of natural gas. One change has been made in § 274.202. Since several of the oath statements which accompany applications for determination of new onshore wells and new onshore reservoirs are the same, these

statements have been consolidated into a new paragraph (e) in § 274.202. However, these statements are still required to be filed with the application.

Several comments suggested that the filing requirements in §§ 274.202 and 274.203 (new natural gas and certain OCS gas) and § 274.204 (new onshore production wells) be shortened, or that Form 121 be modified to expressly list the information required to be filed. These suggestions are not being adopted. Sections 102 and 103 of the NGPA impose certain statutory conditions which must be satisfied before a well qualifies for these categories. Sections 274.202 through 274.204 implement these sections of the NGPA by requiring that certain minimum information needed to make these determinations be submitted to the jurisdictional agency. In view of the stringent requirements imposed by the NGPA which must be met before a well qualifies under section 102 or 103, the Commission believes that the information required to be filed is necessary to satisfy the statutory mandate of the NGPA.

Furthermore, the Commission has considered revising Form 121 to list the filing requirements for each different category of gas and believes such revisions are unnecessary. The substantive information which must be filed with the jurisdicational agency is specifically listed in Part 274, Subpart B. Form 121 is intended to provide only general information concerning the application for determination of eligibility. This permits jurisdictional agencies to prescribe the specific format in which the information specified in Subpart B is to be submitted to the jurisdictional agency. The Commission is of the opinion that the flexibility of this approach will allow jurisdictional agencies to prescribe a format most useful for their purposes.

Section 274.202(c)(1)(iv) requires the applicant to submit a location plat which identifies the well for which the determination is sought and any other well which is producing, or produced after January 1, 1970, natural gas and which is within a 2.5 mile radius from the well for which a determination is sought. Since only wells which produced natural gas between January 1, 1970, and April 20, 1977, are relevant, § 274.202(c)(1)(iv) has been amended to require that only wells which produced natural gas during that period be identified on the location plat. A similar change is being made in § 274.202(c)(2)(iii).

Section 274.202(c)(2)(iii) (1,000 feet deeper test) requires applicants to file a location plat which includes specific identification of all marker wells within a 2.5 mile radius drawn from the well for which a determination is sought. One comment suggested that the applicant should not be required to identify marker wells if it can be shown that the completion locations for all wells within 2.5 miles are at least 1,000 feet shallower than the completion location for the subject well. This suggestion will not be adopted. If the applicant is claiming that the completion location of a new onshore well is 1,000 feet deeper than that for any marker well within a 2.5 mile radius, the record should illustrate those marker wells.

One comment suggested that marker wells which were not drilled to a depth sufficient to penetrate the reservoir into which the subject well is drilled should not be identified under the filing requirements of § 274.202. The comment misconstrues the significance of marker wells and the 1,000 feet deeper test. If the applicant is seeking a new onshore well determination pursuant to the 1,000 feet deeper test, then the applicant must show that the completion location of the new well is at least 1,000 feet deeper than the deepest completion location of each marker well within a 2.5 mile radius. Whether the marker well penetrates the reservoir into which the subject well is drilled is irrelevant. Accordingly, a marker well within the 2.5 mile radius which does not penetrate the reservoir in which the new well is completed but which is within 1,000 vertical feet of such completion location would still disqualify the new well as a new onshore well under section 102.

Section 274.202(d) establishes filing requirements for applications for determinations regarding new onshore reservoirs. One comment suggested an amendment to this section which would allow any subsequent application for determination of eligibility for wells in the same reservoir to refer to the previous application, thereby avoiding unnecessary, repetitious filings of the same information.

The Commission recognizes that unnecessary duplication of reports should be avoided. Accordingly, §§ 274.202(d)(1)(B) and 274.203(c)(2) are being added to allow an applicant to make reference to a previously filed application for determination of eligibility which contains the same information required to be filed in his current application. The applicant may refer to applications previously filed by either himself or any other applicant. However, such previously filed applications must have been filed with the jurisdictional agency with which the current application is filed. Reference may be made only to those applications upon which the jurisdictional agency has made a determination of eligibility and which are on file with the Commission. This restriction is necessary to insure that the information to which the applicant refers is available to the Commission and the jurisdictional agency during the review period. The applicant should refer to the previously filed application by the jurisdictional agency docket number, the FERC docket or control number and the API well number.

Although the Commission expects this change to eliminate the filing of repetitious information, it should be noted that any information not contained in the previously filed application must be submitted with the current application and that each individual application must meet the substantial evidence test.

Section 274.202(d)(1)(v) requires the applicant to state under oath that he has made or caused to be made a diligent search of all records, including production, State severance tax, and royalty payment records, which are reasonably available and relevant to the determination of eligibility. Several comments suggested that applicants should not be required to search royalty payment and State severance tax records because they do not contain information material to the determination of eligibility. It was further suggested that if such a search is required, it should be limited to such records only where applicable.

The Commission believes that a search of these records is necessary because the records may contain evidence relevant to determining whether natural gas was produced in commercial quantities. However, the regulation states, and the Commission intends, that the search may be limited to records which contain information relevant to the determination of eligibility.

Sections 274.202(d)(2)(ii) (A) through (D) require the applicant to answer certain questions under oath concerning the production of natural gas in commercial quantities, and the existence of suitable facilities for the production and delivery of natural gas to a pipeline. This section was amended in Order No. 42-A (Docket No. RM79-68, 44 FR 69642, December 4, 1979). The information is designed to determine whether the natural gas from the new onshore reservoir is subject to the behind-the-pipe exclusion or the withheld gas exclusion of sections 102(c)(1)(C) (ii) or (iii) of the NGPA, respectively. This order retains the above mentioned tests issued in Order

No. 42–A, but renumbers the sections so that the behind-the-pipe test is contained in § 274.202(d)(2)(ii) and the withheld-gas exclusion is contained in § 274.202(d)(2)(iii). Section 274.202(d)(2)(ii)(D) has been eliminated since the above tests will determine whether the gas qualifies as new natural gas.

Section 274.203 established the filing requirements for new reservoirs on old OCS leases. Section 274.203(e) (1) through (4), now § 274.203(e)(1) (i) through (iii) and § 274.203(e)(2), established additional filing requirements for new reservoirs on old OCS leases if the reservoir was penetrated prior to July 27, 1976. In particular, §§ 274.203(e) (1) through (3) (now renumbered as §§ 274.203(e)(1) (i) through (iii)) require the applicant to submit the results of certain production tests and evidence which demonstrate as of the time of such tests or as of the time such evidence was obtained, that the reservoir was not capable of producing in paying or commercial quantities. Several comments stated that the filing requirements of this section changed the burden of proof in section 102(d)(4) of the NGPA with respect to the tests set forth in section 102(d)(2)(2)(B) (i) through (iii).

The Commission believes that if any of the tests or evidence set forth in section 102(d)(2)(B) (i) through (iii) of the NGPA were performed on or before July 27, 1976, the results of such tests or evidence should be submitted by the applicant. However, if no such tests were performed and no other evidence concerning the reservoir's capability to produce in paying quantities exists on or before July 27, 1976, then the applicant should submit an oath statement to that effect. Accordingly, and in response to the above comments, §§ 274.203(e)(1) (i) through (iii) are changed to require the applicant to submit the test results and evidence listed in §§ 274.203(e)(1) (i) through (iii), to the extent such tests were performed on or before July 27, 1976. If such data is not available because such tests were not performed and no other evidence showing the well was capable of producing in paying quantities was in existence on or before July 27, 1976, the applicant must submit an oath statement to such effect.

One comment stated that this oath statement had no statutory basis. The Commission believes that this statement is necessary in order to insure that none of the tests which would have generated the information listed in §§ 274.203(e)(1) (i) through (iii) have been performed. Since the applicant has the burden of showing that the reservoir is a new reservoir on an old OCS lease, he must submit such a statement in order to meet this burden.

Another comment requested that the filing requirements in §§ 274.202, 274.204 and 274.205 be expanded to include certain additional information which would be helpful to the jurisdictional agency in making determinations of eligibility. The Commission declines to expand the filing requirements in these sections beyond that which is necessary for jurisdictional agencies to make a determination of eligibility. If jurisdictional agencies desire additional information for purposes of making such determinations, § 274.201(c) permits the jurisdictional agency to require the additional information if it deems appropriate.

Section 274.204 establishes the filing requirements for applications for determination of eligibility for new onshore production wells. One comment stated that the filing of a completion report as required by § 274.204(b) is unnecessary because, in some states, the drilling permit already contains the information needed for this determination.

The Commission notes that this report contains, among other things, the date on which surface drilling began, and it is needed to establish whether drilling began on or after February 19, 1977. Therefore, the Commission believes that all applicants should file this report. However, if jurisdictional agencies find that the filing of this report is unnecessary and that another reliable document providing the same information is available, they may submit an application for alternative filing and notice requirements under § 274.207. The Commission notes, however, that it is desirable to establish uniform filing requirements for all jurisdictional agencies. Accordingly, requests for alternative filing and notice requirements will be reviewed with care and granted only where circumstances warrant a change.

In applying for a determination for a new onshore production well, the applicant is required by § 274.204(c) to submit a location plat which identifies the well for which a determination is sought and all other wells within the state law proration unit (as defined in § 271.305(a)(2)) in which the well for which a determination is sought is located. This section is being amended to require the applicant to also identify the state law proration unit.

Section 274.205 sets forth the filing requirements for high-cost natural gas. Included in this section are the revisions made in Docket No. RM79–44 (44 FR 61950, October 27, 1979). Section 274.205 paragraphs (b), (c) and (d) will remain as interim rules until there is further action by the Commission.

Section 274.206 establishes the filing requirements for applicants seeking to establish stripper well status. Order No. 44 (Docket No. RM79–73, 44 FR 49656, August 24, 1979) amended § 274.206 by requiring the applicant to submit certain records and test results if the maximum efficient rate of flow for the well had not previously been established. The present order further amends this section by adding subparagraph (a)(3) to require the applicant to submit a copy of the results of any tests which establish a maximum efficient rate of flow.

Sections 274.206(a)(2), 274.206(a)(4)(i), 274.206(b)(3), and 274.206(d)(3) require the applicant to submit production records, tax records, or verified billing statements upon which the average production for the 90-day production period is based. The Commission believes that, in many cases, the filing of the actual records or billing statements is unnecessary and that a summary of such records or billing statements will serve the same purpose. These sections are therefore being amended to allow the applicant to submit a summary of the contents of such records or billing statements in lieu of the actual documents, but only if permitted by the jurisdictional agency's filing requirements.

Order No. 44 clarified § 271.804(a) of the interim regulations concerning the methodology for determining the rate of production from a well for which a stripper well determination is sought. Section 271.804(a) requires an applicant to determine a well's rate of production by using the total volume of natural gas produced from the well regardless of whether the well is completed in more than one interval. In order to emphasize that production from a stripper well is based on the total volume from the well and not the production from each interval, § 274.206(a)(9) has been added to the filing requirements to require the applicant to submit production records for each completion location penetrated by the well bore.

Section 274.206(a)(7) (now renumbered as § 274.206(a)(8)) requires the applicant to submit production records for crude oil produced from the well for the 90-day production period on which the application is based. In those cases where no crude oil was produced from the well, the regulation is being amended to require an oath statement to that effect.

Section 274.206(a)(8) requires the producer to file "an inventory of the lease and production equipment." Several comments suggested that this

filing should not be required until the producer submits a request for continued stripper well classification following the use of enhanced recovery techniques. It was further suggested that the Commission define the inventory of equipment essential for the filing.

The Commission agrees that the filing of this information is more relevant if the applicant claims an increase in production due to the use of enhanced recovery techniques. Accordingly, this filing requirement is being deleted from § 274.206(a). Section 274.206(c), pertaining to enhanced recovery techniques, is being amended to require the applicant to file a description of all processes and equipment which constitute enhanced recovery techniques. The applicant is also required to submit a list of the lease and production equipment used prior to the installation of the enhanced recovery techniques. The Commission intends such lists to include equipment which directly affects the production of natural gas, such as compression facilities, pumps, chokes, and intermittors, rather than a detailed inventory of all equipment used at the wellhead. The Commission anticipates that this information will provide a basis for the jurisdictional agency to determine whether increased production from the well has resulted from the implementation of recognized enhanced recovery techniques.

The Commission amended § 271.803(a) in Order No. 44 to specify that normal completion operations performed within two years of the initial completion do not qualify as recognized enhanced recovery techniques. In view of this, § 274.206(c) is now amended to require the well completion report to be filed when an applicant seeks a determination that increased production resulted from use of recognized enhanced recovery techniques.

Other comments were submitted regarding "production days" and certain other requirements which must be satisfied to qualify for stripper well status. These requirements are discussed in Order No. 44, and in Order No. 44–A (Docket No. RM79–73). Producers should refer to these orders for further explanation of these issues.

Section 274.207 permits jurisdictional agencies to submit an application to the Commission to establish alternative filing and notice requirements. One comment suggested that this section be amended to allow for a special filing procedure for small producers. The Commission believes that this suggestion should not be adopted. First, we note that the NGPA does not exempt small producers from applying for jurisdictional agency determinations for eligibility. The filing requirements imposed by this subpart are intended to provide the jurisdictional agency with the minimum information which is needed for the jurisdictional agency to make a reliable determination of a well's eligibility for certain categories and to provide the Commission with sufficient information to determine whether the jurisdictional agency's determination of eligibility meets the substantial evidence test of section 503 of the NGPA. This information is necessary regardless of a producer's production capability. Accordingly, no special filing procedure is being established for small producers. However, if a jurisdictional agency believes that small producers with natural gas wells within its jurisdictional region are capable of submitting the necessary information in some abbreviated fashion, it may submit an application to the Commission for such filing and notice requirements under § 274.207.

Another comment suggested that the oath statements in §§ 274.202 through 274.206 be amended to allow the applicant to file a one-time blanket affidavit with the Commission in lieu of the oath statement which must accompany each application. This suggestion is not being adopted. The Commission believes that the statement under oath is necessary for each application because it indicates that the applicant has carefully considered the application and all information contained therein.

The oath statements in §§ 274.202 through 274.206 require the applicant to state that he has no knowledge of any other information not described in the application which is inconsistent with his conclusion. One comment suggested that this be amended to require the applicant to submit all information relevant to the determination, not only information favorable to the applicant's conclusion.

The Commission believes that the regulations already require submission of all relevant information. The Commission intends this part of the oath statement to require the applicant to present not only all evidence which supports the applicant's conclusion, but also all relevant evidence which does not support his conclusion. The regulations require the applicant to submit a statement under oath that he has no knowledge of any other information not described in the application which is inconsistent with his conclusion. An important purpose of this oath statement is to insure that the applicant has searched and reported to the jurisdictional agency all information which is reasonably available and which does not support his conclusion.

Sections 274.202, 274.203, and 274.206 require the applicant to state under oath that he has searched or caused to be searched all records relevant to the determination of eligibility which are reasonably available. One comment questioned whether this search was limited to company records, state production records, or both. Other comments stated that the search should be limited to the producer's records since state records are usually not helpful and are not in good condition, or that the search should be limited to records which the producer believes might contain information relevant to the determination.

The Commission intends that all records, including company records and state records, should be searched for information which is reasonably related to the determination of eligibility. This search is needed to assure that the application for determination of eligibility is accurate and complete and that all information which is both favorable and unfavorable to the applicant is submitted to the jurisdictional agency and is available to the Commission upon review of the jurisdictional agency determination.

One comment was submitted which suggested that Form 121 be amended to provide the FERC rate schedule designation, if applicable. This suggestion will not be adopted. The rate schedule number has no bearing on a determination for eligibility. Form 121 contains the contract date which should assist interested persons in locating the rate schedule.

Form 121, item No. 6, requires the applicant to report the estimated annual production from the well for which a determination of eligibility is sought. One comment suggested eliminating this information. The Commission believes that this information should be reported because it assists purchasers and third parties in determining which applications should be protested.

## III. Public Procedures and Effective Date

The regulations in Part 274 were originally proposed for comment in November of 1978 and issued as interim regulations on December 1, 1978 (43 FR 56448, December 1, 1978). For a period of sixty (60) days thereafter, the Commission received comments and held public hearings on the regulations. By this process the Commission complied with the provisions of section 502(b) of the NGPA. The amendments that appear in this final rule are based

on the consideration given to the information received during the above described notice, comment, and hearing process.

Therefore, the provisions of this part shall be effective thirty (30) days after issuance.

(Natural Gas Policy Act of 1978, (15 U.S.C. 3301 *et seq.*,) Department of Energy Organization Act, (42 U.S.C. 7101 *et seq*); E.O. 12009, 42 FR 46267.)

In consideration of the foregoing, Subpart B of Part 274, Chapter I, of Title 18, Code of Federal Regulations, is amended as set forth below, effective 30 days from the date of issuance. These rules, as amended, are final regulations with the exception of paragraphs (b), (c) and (d) of § 274.205 which will remain as interim rules until further notice.

By the Commission.

Kenneth F. Plumb,

*Secretary.*

1. Subpart B of Part 274 is revised to read as follows:

**Subpart B—Requirements for Filings With Jurisdictional Agencies**

Sec.

274.201 General requirements.
274.202 New natural gas.
274.203 New reservoirs on old OCS leases.
274.204 New onshore production wells.
274.205 High-cost natural gas.
274.206 Stripper well natural gas.
274.207 Alternative filing and notice requirements.

Authority: Natural Gas Policy Act of 1978 (15 U.S.C. 3301 et. seq.); Department of Energy Organization Act (42 U.S.C. 7101 et. seq.); E.O. 12009, 42 FR 46267.

## Subpart B—Requirements for Filings With Jurisdictional Agencies

### § 274.201 General requirements.

(a) *Filing requirements applicable if alternative requirements are not adopted.* The provisions of §§ 274.201 through 274.206 of this subpart apply to the extent not superseded by alternative filing requirements which have taken effect under §§ 274.207 and 274.208.

(b) *Who may file.* An application to which this subpart applies may be filed with the jurisdictional agency and signed by any person the jurisdictional agency designates as eligible to make filings with respect to the well for which the application is made.

(c) *Additional information.* The documents required by this subpart are the minimum required in support of a request for a determination. The jurisdictional agency may require additional support as it deems appropriate, and may more specifically identify the documents indicated as the minimum required.

(d) *Notice to purchasers.* Where an application for a determination is sought for natural gas for which the applicant has an identified purchaser, the application shall include a statement that the applicant has delivered or mailed a copy of the completed FERC Form No. 121 to the purchaser.

### § 274.202 New natural gas.

(a) *Applications for determination.* A person seeking a determination for purposes of Subpart B of Part 271 that production from a well qualifies as new natural gas shall file an application with the jurisdictional agency for a determination that:

(1) Such production is from a new OCS lease, in accordance with paragraph (b) of this section;

(2) Such production is from a new onshore well, in accordance with paragraph (c) of this section; or

(3) Such production is from a new onshore reservoir, in accordance with paragraph (d) of this section.

(b) *New OCS lease.* For purposes of demonstrating that natural gas is, or is to be, produced from a new OCS lease, the applicant shall file:

(1) FERC Form No. 121;

(2) A statement by the applicant under oath that the natural gas is, or is to be, produced from a new OCS lease which is a lease of submerged acreage entered into with the Secretary of the Interior on or after April 20, 1977; and

(3) A copy of the OCS lease or such other identification of the lease as the jurisdictional agency may permit.

(c) *New onshore wells.* An application for a determination that a well is a new onshore well may be filed under subparagraph (1) or (2) of this paragraph, or both.

(1) *2.5 mile test.* For purposes of demonstrating that a new onshore well is not within 2.5 miles of any marker well, the applicant shall file:

(i) FERC Form No. 121; [1]

(ii) The well completion report;

(iii) The directional drilling survey, if the jurisdictional agency requires such a survey to be conducted;

(iv) A location plat which locates and identifies the well for which the determination is sought and any other well which produced natural gas after January 1, 1970, and before April 20, 1977, and is within the 2.5 mile radius drawn from the well for which a determination is sought;

(v) A statement by the applicant under oath, that on the basis of the results of the search and examination required by § 274.202(e), he has concluded that to the best of his information, knowledge and belief, there is no marker well within 2.5 miles of the well for which he seeks a determination;

(vi) The oath statements set forth in § 274.202(e); and

(vii) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files.

(2) *1,000 feet deeper test.* For purposes of demonstrating that the completion location of a new onshore well is at least 1,000 feet deeper than the deepest completion location of each marker well within a 2.5 mile radius of the well for which a determination is sought, the applicant shall file:

(i) FERC Form No. 121;

(ii) The well completion report;

(iii) A location plat which locates and identifies the well for which the determination is sought and all wells which produced natural gas after January 1, 1970, and before April 20, 1977, within the 2.5 mile radius drawn from the well for which a determination is sought; including specific identification of all marker wells within the 2.5 mile radius drawn from the well for which a determination is sought;

(iv) A list of the deepest completion locations for all marker wells identified on the location plat;

(v) The directional drilling survey, if the jurisdictional agency requires such survey to be conducted;

(vi) A statement by the applicant, under oath, that on the basis of the results of the search and examination required by § 274.202(e), he has concluded that to the best of his information, knowledge and belief, there is no marker well within 2.5 miles of the well for which he seeks a determination which has a completion location less than 1,000 feet above the completion location of the new well; and

(vii) The oath statements set forth in § 274.202(e); and

(viii) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files.

(d) *New onshore reservoir.* (1) For purposes of demonstrating that production is from a new onshore reservoir, the applicant shall file:

(i) FERC Form No. 121; [1]

(ii) Geological information sufficient to support a determination that the reservoir is a new onshore reservoir.

(A) Such information shall include to the extent reasonably available to the applicant at the time the application is filed:

*(1)* Well logs;

[1] Filed as part of the original document.

[1] Filed as part of the original document.

*(2)* Bottom hole or surface pressure surveys;

*(3)* Well potential tests;

*(4)* Formation structure maps;

*(5)* Subsurface cross-section charts; and

*(6)* Gas analyses;

(B) If any of the information specified in paragraph (d)(1)(ii)(A)*(1)* through *(6)* of this section has already been filed in a previous application for determination with the same jurisdictional agency, and such application and determination of eligibility for such application are on file with the Commission, the applicant may submit, in lieu of such information, a statement identifying such information and the application by jurisdictional agency docket number, FERC docket or control number, and the API well number.

(iii) The well completion report;

(iv) The directional drilling survey if the jurisdictional agency requires such a survey to be conducted; and

(v) A statement by the applicant under oath that on the basis of the results of the search and examination required in § 272.202(e), he has concluded that to the best of his information, knowledge and belief, the natural gas to be produced and for which he seeks a determination is from a new onshore reservoir;

(vi) The oath statement set forth in paragraphs (d)(2) and (e) of this section; and

(vii) If the jurisdictional agency so requires, certified copies of records relied on by the applicant, including copies of the agency's official files.

(2) The applicant, in his statement under oath required under paragraph (e) of this section, shall also answer, to the best of his information, knowledge and belief, and on the basis of the results of his search and examination, the following questions:

(i) Was natural gas produced in commercial quantities from the reservoir prior to April 20, 1977?

(ii)(A) If the question in paragraph (d)(1)(i) of this section is answered in the negative, was the reservoir penetrated before April 20, 1977, by an old well from which natural gas or crude oil was produced in commercial quantities from any reservoir?

(B) If the question in paragraph (d)(1)(ii)(A) of this section is answered in the affirmative, could natural gas have been produced in commercial quantities from the reservoir before April 20, 1977, from any old well described in paragraph (d)(1)(ii)(A) of this section?

(C) If the question in paragraph (d)(1)(ii)(B) of this section is answered in the negative, were any sales and deliveries of natural gas made from any other reservoir through any old well described in paragraph (d)(1)(ii)(A) of this section prior to April 20, 1977, and were any sales and deliveries of natural gas made from the subject reservoir through such old well on or after April 20, 1977, and before November 9, 1978?

(D) If the applicant is unable to answer both questions in paragraph (d)(1)(ii)(C) of this section in the negative, he must demonstrate that the Behind-the-Pipe Exclusion in section 102(c)(1)(C)(ii) of the NGPA does not apply by submitting the following:

*(1)* Proof that a final eligibility determination has been made that the subject reservoir is a new onshore reservoir by identifying such determination by the jurisdictional agency and FERC Docket number and the API well numbers, or,

*(2)* Evidence clearly demonstrating that the sale of production from the subject reservoir (net of royalty) through any well described in paragraph (d)(2)(ii)(A) of this section at the market price reasonably available as of April 20, 1977 could not have generated revenues sufficient to equal or exceed the sum of *(i)* 1.6 times the minimum incremental costs properly allocable to such production of installing cost-efficient facilities not in existence as of April 20, 1977, reasonably required to market such production, plus *(ii)* the minimum incremental expenses properly allocable to such production reasonably required to operate such facilities. All costs, expenses and revenues shall be determined as of April 20, 1977. The applicant shall also provide an explanation of the basis of all estimates accompanied by substantiating workpapers and such other evidence necessary to substantiate fully the conclusion that the Behind-the-Pipe Exclusion does not apply.

(iii)(A) If the natural gas is to be produced through an old well, were suitable facilities for the production and delivery to a pipeline of such natural gas in existence on April 20, 1977?

(B) If the question in paragraph (d)(2)(iii)(A) of this section is answered in the affirmative, were such suitable facilities installed to carry out sales and deliveries of natural gas under section 6 of the Emergency Natural Gas Act of 1977 or under the emergency sale authority pursuant to Opinion 699-B issued by the Federal Power Commission?

(e) *Oath statements by the applicant.* With each application for determination submitted under this section, the applicant shall submit a statement under oath:

(1) That the applicant has made, or has caused to be made pursuant to his instructions, a diligent search of all records (including but not limited to production, State severance tax, and royalty payment records and records of jurisdictional agency determinations) which are reasonably available and contain information relevant to the determination of eligibility;

(2) Describing the search made, the records reviewed, the location of such records, and a description of any records which the applicant believes may contain information relevant to the determination but which he has determined are not reasonably available to him;

(3) That the applicant has no knowledge of any other information not described in the application which is inconsistent with his conclusion that the well qualifies for the well category determination sought.

**§ 274.203 New reservoirs on old OCS leases.**

A person seeking a determination for purposes of Subpart B of Part 271 that natural gas is produced from a new reservoir on an old OCS lease (as defined in § 271.203(b)), shall file an application with the jurisdictional agency which contains the following items:

(a) FERC Form No. 121;

(b) The date the reservoir was penetrated;

(c) Geological information sufficient to support a determination that the reservoir is a new reservoir on an old OCS lease.

(1) Such information shall include to the extent reasonably available to the applicant at the time of the determination:

(i) Well logs;

(ii) Bottom hole or surface pressure surveys;

(iii) Well potential tests;

(iv) Formation structure maps;

(v) Subsurface cross-section charts;

(vi) Gas analyses,

(2) If any of the information specified in subparagraph (1) of this paragraph has already been filed in a previous application for determination with the same jurisdictional agency, and such application and a determination of eligibility for such application are on file with the Commission, the applicant may submit, in lieu of such information, a statement identifying such information and the application by jurisdictional agency docket number, FERC docket or control number, and the API well number.

(d) The well completion report;

(e) If the date of penetration of the reservoir is prior to July 27, 1976:

(1) Then to the extent such tests were performed on or before July 27, 1976,

(i) The results of any production test meeting the requirements of OCS Order No. 4 with respect to such reservoir; and

(ii) Any production capability evidence meeting the requirements of OCS Order No. 4 with respect to such reservoir; and

(iii) Any induction-electric logs, sidewall cores and core analyses, or wire line formation tests with respect to such reservoir; or

(2) A statement by the applicant, under oath, that no such production tests were performed and that no evidence existed on or before July 27, 1976 that the reservoir was capable of producing in paying quantities;

(f) A statement by the applicant, under oath:

(1) That the applicant has made, or has caused to be made pursuant to his instructions, a diligent search of all records (including but not limited to production and royalty payment records) which are reasonably available and contain information relevant to the determination of eligibility;

(2) Describing the search made, the records reviewed, the location of the records, and a description of any records which the applicant believes may contain information relevant to the determination but which he has determined are not reasonably available to him;

(3) That on the basis of the results of this search and examination, the applicant has concluded that to the best of his information, knowledge and belief, the natural gas for which the applicant seeks a determination is produced from an old lease on the OCS from a reservoir which was not discovered before July 27, 1976; and

(4) That he has no knowledge of any other information not described in the application which is inconsistent with his conclusion;

(g) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files.

**§ 274.204 New, onshore production wells.**

A person seeking a determination for purposes of Subpart C of Part 271 that a well is a new, onshore production well shall file an application with the jurisdictional agency which contains the following items:

(a) FERC Form No. 121;

(b) The well completion report;

(c) A location plat which locates and identifies the State law proration unit (as defined in § 271.305(a)(2)) and the well for which a determination is sought and all other wells within the State law proration unit in which the well for which a determination is sought is located;

(d) A statement by the applicant, under oath:

(1) That the surface drilling of the well for which he seeks a determination was begun on or after February 19, 1977;

(2) That the well satisfies any applicable Federal or State well spacing requirements;

(3) That, except as provided in paragraphs (f) and (g) of this section, the well is not within a State law proration unit (as defined in § 271.305(a)(2)):

(i) Which was in existence at the time the surface drilling of the well began;

(ii) Which was applicable to the reservoir from which such natural gas is produced; and

(iii) Which applied to any other well which either produced natural gas in commercial quantities or the surface drilling of which was begun before February 19, 1977, and which was thereafter capable of producing natural gas in commercial quantities;

(4) That on the basis of the documents submitted in the application, the applicant has concluded that to the best of his information, knowledge and belief, the natural gas for which the applicant seeks a determination is produced from a new, onshore production well; and

(5) That the applicant has no knowledge of any other information not described in the application which is inconsistent with his conclusion;

(e) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files; and

(f) If the applicant is seeking a determination with respect to a new well drilled into an existing State law proration unit pursuant to § 271.305, the applicant must file all items required in paragraphs (a) through (e) of this section, except for the portion of the oath statement described in paragraph (d)(3) of this section and demonstrate by appropriate geological evidence and engineering data that the new well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by any existing well within the proration unit.

(g) For the purposes of paragraph (d)(3)(iii) of this section, the applicant may rely on the rebuttable presumption created in § 271.305(d) unless the applicant knew that a well in the proration unit, which was plugged and abandoned prior to January 1, 1970 and has not produced natural gas on or after that date, produced natural gas in commercial quantities or, after February 19, 1977, was capable of producing natural gas in commercial quantities.

**§ 274.205 High-cost natural gas.**

(a) *Deep, high-cost natural gas.* A person seeking a determination for purposes of Subpart G of Part 271 that natural gas is produced from a well which is a deep, high-cost well shall file an application with the jurisdictional agency which contains the following items:

(1) FERC Form No. 121;

(2) All well completion reports for the well for which a determination is sought;

(3) The log heading together with the relevant portion of the well log or well servicing company reports or such other information which will corroborate the depth of the completion location reported in the well completion report;

(4) Directional drilling surveys if available;

(5) A statement by the applicant, under oath, that the surface drilling of the well for which the applicant seeks a determination began on or after February 19, 1977, and that the well completion location is below a true vertical depth of 15,000 feet; and that the applicant has no knowledge of any information not described in the application which is inconsistent with his conclusions; and

(6) If the jurisdictional agency so requires, certified copies of records relied on by the applicant, including copies of the agency's official files.

(b) *Natural gas produced from geopressured brine.* A person seeking a determination for purposes of Part 272 that natural gas is produced from geopressured brine shall file an application with the jurisdictional agency which contains the following items:

(1) FERC Form No. 121;

(2) The well completion report;

(3) A bottom-hole pressure test report and other information establishing the initial reservoir pressure gradient;

(4) Evidence to establish that, before production, the gas from the well was in solution in a brine aquifer with at least 10,000 parts of Sodium Chloride per million parts of water; and

(5) If the jurisdictional agency so requires, certified copies of records relied upon by the applicant including copies of the agency's official files.

(c) *Occluded natural gas produced from coal seams.* A person seeking a determination for purposes of Part 272 that natural gas is occluded natural gas produced from coal seams shall file an

application with the jurisdictional agency which contains the following items:

(1) FERC Form No. 121;

(2) The well completion report;

(3) A gamma ray log;

(4) Evidence to establish that the natural gas was produced from a coal seam; and

(5) If the jurisdictional agency so requires, certified copies of records relied upon by the applicant including copies of the agency's official files.

(d) *Natural gas produced from Devonian shale.* A person seeking a determination for purposes of Part 272 that natural gas is produced from Devonian shale shall file an application with the jurisdictional agency which contains the following items:

(1) FERC Form No. 121;

(2) The well completion report;

(3) A gamma ray log;

(4) A reference to a standard stratigraphic chart or text establishing that the producing interval is a Devonian shale; and

(5) If the jurisdictional agency so requires, certified copies of the agency's official files.

**§ 274.206 Stripper well natural gas.**

A person seeking a determination for purposes of Subpart H of Part 271 that a well either qualifies or continues to qualify as a stripper well shall file an application with the jurisdictional agency which contains the following items:

(a) *Application for determination.* For purposes of initially qualifying a stripper well, the applicant shall file;

(1) FERC Form No. 121;

(2) Production records, if available, and if not, tax records, if available, or verified copies of billing statements upon which the average production for the 90-day production period is based; or, if so permitted by the jurisdictional agency's filing requirements, summaries of such records or billing statements;

(3) A copy of the results of any tests which establish a maximum efficient rate of flow under § 271.807(a);

(4) Where the maximum efficient rate of flow for the well has not been established under § 271.807(a):

(i) Production records, if available, and if not, tax records, if available, or verified copies of billing statements for the 12 months ending on the last day of the 90-day production period upon which the application is based, or if so permitted by the jurisdictional agency's filing requirements, summaries of such records or billing statements; or

(ii) A copy of the results of any tests which measure the production capability of the well, or any other evidence upon which the jurisdictional agency could establish maximum efficient rate of flow.

(5) Where the determination is deferred pursuant to § 271.807(b)(1)(ii) or (b)(2), within 90 days after the last day of the deferred period, production data for the deferred period, including the 90-day production period upon which the application is based.

(6) The number of days natural gas was produced during the 90-day production period described in § 271.803(c)(2).

(7) The number of days natural gas was not produced during the 90-day production period described in § 271.803(c)(2), and

(i) A description of the state law or conservation practice, as set forth in § 271.803(d)(2), pursuant to which the well did not produce on any such day or days, or

(ii) An explanation of any other reason the well did not produce on any such day or days.

(8) The production records for crude oil produced from the well for the 90-day production period upon which the application is based, or if no crude oil was produced from the well, a statement under oath to that effect.

(9) If the well is a multiple completion well, production records for each completion location penetrated by the well bore;

(10) A statement under oath, (i) that the applicant has made, or has caused to be made pursuant to his instructions, a diligent search of all records which are reasonably available and contain information relevant to the determination;

(ii) Describing the search made, the records reviewed, and the results of this search and examination upon which he has concluded that to the best of his information, knowledge and belief, the well qualifies as a stripper well;

(iii) That the production records, tax records, billing statements, or summaries of such records or billing statements relied upon in the application are correct; and

(iv) A statement that the applicant has no knowledge of any other information which is inconsistent with his conclusion that the well qualifies as a stripper well;

(11) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files.

(b) *Notice by an operator or purchaser of an increase in production.* For purpose of the notices required under § 271.805, the person filing shall include:

(1) The names and addresses of the operator and purchaser(s) with a designation of who is filing the notice;

(2) Identification of the subject well and accurate record reference to the original determination qualifying the well as a stripper well;

(3) The monthly production reports, tax records or billing statements upon which the notice is based for the period of production in question or, if so permitted by the jurisdictional agency's filing requirements, summaries of such records or billing statements;

(4) A statement of the average production per production day for the period in question;

(5) A statement that all of the information contained in the notice is true to the best of his information, knowledge and belief; and that the notice has been served on the appropriate entities specified in § 271.805(a)(3); and

(6) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files.

(c) *Determination of increased production resulting from recognized enhanced recovery techniques.* For purposes of a determination under § 271.805(e) that increased production resulted from the use of recognized enhanced recovery techniques, the applicant shall file:

(1) The names and addresses of the applicant and purchaser(s);

(2) An identification of the well and accurate reference to the original determination qualifying the well as a stripper well and the notice, if any, filed by a purchaser pursuant to § 271.805;

(3) The well completion report;

(4) A description of all processes used and equipment installed together with all dates of use or installation which constitute enhanced recovery techniques;

(5) An inventory of the lease and production equipment used such as compression facilities, pumps, chokes and intermittors for the well for the past 24 months or, if less, the period the well has been in production prior to the institution of recovery techniques;

(6) A statement, under oath, that to the best of his information, knowledge and belief, the information supplied and the conclusions drawn are true, that the operator has no knowledge of any information not described in the application which is inconsistent with any of his conclusions; and that the petition for recognized enhanced recovery techniques has been served on the jurisdictional agency, the Commission, and any purchaser; and

(7) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files.

(d) *Designation that a well is seasonally affected.* For purposes of a determination under § 271.804(d) that a well is seasonally affected, the applicant shall file:

(1) The names and addresses of the applicant and purchaser(s);

(2) An identification of the well and accurate record reference, if applicable, to the orignal determination qualifying the well as a stripper well and any notice filed by a purchaser pursuant to § 271.805;

(3) Production records, tax records or billing statements for a period of 24 months, including the 90-day production period which is the subject of the notice by the operator or the purchaser or, if so permitted by the jurisdictional agency's requirements, summaries of such records or billing statements;

(4) A description of the nature of the seasonal fluctuations as inferred from the date supplied;

(5) A statement, under oath, that the production records, tax records or billing statements, or summaries of such records or billing statements, if so permitted by the jurisdictional agency's filing requirements, relied upon in the application for the designation are correct; that the operator has no knowledge of any information not described in the application which is inconsistent with any of his conclusions; and that the petition for seasonally affected designation has been served on the jurisdictional agency, the Commission, and any purchaser; and

(6) If the jurisdictional agency so requires, certified copies of the records relied on by the applicant including copies of the agency's official files.

**§ 274.207 Alternative filing and notice requirements.**

(a) *General.* Upon written application by a jurisdictional agency pursuant to this section, the Commission may approve:

(1) Filing requirements which differ from those in §§ 274.201 through 274.206; and

(2) Notice requirements which differ from those in § 274.104;

(b) *Contents of applications.* Applications for approval of alternative filing or notice requirements shall include:

(1) Each requirement of this part for which an alternative is proposed;

(2) A description of the specific requirements which will replace the requirements in subparagraph (1) of this paragraph, including copies of any forms to be used by the agency;

(3) The reasons for requesting approval of each alternative requirement, which may include the fact that such information is not available; and

(4) The basis for the belief that filings under the alternative filing requirements will provide substantial evidence on which the jurisdictional agency may base a determination or that notice under the alternative notice requirements will provide the Commission with an adequate basis upon which to review the determination.

(c) *Commission review of applications.* Upon receipt of an application pursuant to this section, the Commission shall give public notice of such application and after review of any written comments, may issue an order approving the alternative requirements. The Commission will publish the order in the Federal Register.

(d) *Effective date of alternative filing and notice requirements.* (1) With respect to applications received by a jurisdictional agency after the effective date of approval of alternative filing requirements, such alternate requirements as are specified and approved in § 274.208 shall apply in lieu of the provisions of §§ 274.201 through 274.206.

(2) With respect to determinations made by a jurisdictional agency after the effective date of approved alternative notice requirements, the alternative notice requirements as are specified and approved in section 274.208 shall apply in lieu of the provisions of § 274.104 of this subpart.

(e) *Termination of alternative filing and notice requirements.* (1) A jurisdictional agency may, upon notice to the Commission, discontinue the use of any alternative filing or notice requirements approved under this subpart.

(2) The Commission may, after a public comment period of no less than 30 days, give notice to a jurisdictional agency that the Commission has terminated its approval of alternative filing or notice requirements, if it finds that the alternative filing or notice requirements:

(i) Are not sufficient to carry out the purpose of the NGPA; or

(ii) After notice and opportunity for hearing, the jurisdictional agency has not complied, or required compliance, with the alternative provisions.

(3) Applications for determinations received by jurisdictional agencies after notice of termination of the applicability of alternative filing requirements pursuant to this section and § 274.208 shall be subject to the filing requirements set forth in §§ 274.201 through 274.206.

(4) Notice of determinations made by jurisdictional agencies after notice of termination of the applicability of alternative notice requirements pursuant to this section and § 274.208 shall be subject to the notice requirements set forth in § 274.104.

2. FERC Form No. 121. The information to be supplied under Subpart B of Part 274 is to be submitted on FERC Form 121, an example of which appears as an appendix to this Order.[1]

[FR Doc. 80-1641 Filed 1-18-80; 8:45 am]
BILLING CODE 6450-01-M

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**18 CFR Part 274**

**[Docket No. RM79-3; Order 66]**

## Determinations by Jurisdictional Agencies; New Mexico Application for Alternative Filing Requirements

Issued: January 4, 1980.

**AGENCY:** Federal Energy Regulatory Commission.

**ACTION:** Final rule.

**SUMMARY:** This rule adds § 274.208(a) to the Federal Energy Regulatory Commission's regulations implementing the Natural Gas Policy Act of 1978. The new section provides alternative filing requirements for certain well determination applications to the New Mexico Oil Conservation Division.

**EFFECTIVE DATE:** January 4, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mark Magnuson, Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, (202) 357-8511.

### Order Issuing Alternative Filing Requirements

On September 18, 1979, the New Mexico Oil Conservation Division, Energy and Minerals Department (New Mexico) filed an application with the Federal Energy Regulatory Commission (Commission) for approval of alternative requirements pursuant to § 274.207 of the Commission's regulations. The proposed alternative filing requirements would apply to determinations that certain wells drilled in existing proration units in New Mexico are new, onshore production wells. Notice of the New Mexico application was issued on October 10, 1979.[1] The comment period expired on October 31, 1979, without any comments being submitted by the public.

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[1] Filed as part of the original document.

[1] 44 FR 59603, October 16, 1979.

Section 103 of the Natural Gas Policy Act of 1978 (NGPA) establishes ceiling prices for new, onshore production wells. Applicants seeking a section 103 determination of eligibility are required to file with the jurisdictional agency the information specified in § 274.204 of the Commission's interim regulations, unless the Commission has approved alternative filing requirements pursuant to § 274.207. In its application, New Mexico requests that the filing requirements of § 274.204(d), (e) and (f) be modified for applications seeking a section 103 determination for infill wells [2] drilled in accordance with New Mexico Order Nos. R-1670-T (regarding the Blanco Mazaverde pool) and R-1670-V (regarding the Basin-Dakota pool). New Mexico states that these two orders provide for the optional drilling of an additional well on each proration unit in the Blanco-Mesaverde and Basin-Dakota pools and constitute a finding by New Mexico that the proration units within these two pools cannot be effectively and efficiently drained by the existing wells.[3] Accordingly, New Mexico requests alternative filing requirements for applicants seeking section 103 determinations for infill wells within the subject pools because New Mexico has already made the explicit finding required by § 271.305 of the Commission's regulations that a second well in each existing proration unit in the subject pools is necessary to effectively and efficiently drain the portion of the reservoir covered by that proration unit.

[2] An infill well is a well which, for geological reasons, is necessary to drain a portion of a reservoir which is not being effectively and efficiently drained by any existing wells in the reservoir.

[3] In Order No. R-1670-T, New Mexico found, inter alia:

(12) That the producing formation of the Blanco Mesaverde Pool is comprised of various overlapping, interconnecting, and lenticular sands of relatively low permeability, many of which are not being efficiently drained by existing wells in the pool but which could be more efficiently and economically drained and developed by the drilling of additional wells pursuant to the rule changes proposed by the applicant.

In Order No. R-1670-V, New Mexico found, inter alia:

(13) That the producing formation of the Basin-Dakota Gas Pool is comprised of various sands of low permeability and porosity which are not being efficiently and effectively drained by existing wells in the various proration units in the pool, and which can be more efficiently and effectively drained by the drilling of additional wells pursuant to the rule changes proposed by the applicant.

(14) That the infill drilling of a second well on an established proration unit in the Basin-Dakota Gas Pool is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by any existing wells within the proration unit.

The Commission concludes based upon the facts set forth in the New Mexico application that alternative filing requirements are appropriate for wells drilled in accordance with the above-identified orders. Therefore, Part 274, Subpart B is amended by adding § 274.208(a) to provide separate filing requirements for applications requesting section 103 determinations of infill wells in the Blanco-Mesaverde and Basin-Dakota pools which are drilled in accordance with New Mexico Order Nos. R-1670-T and R-1670-V. In approving the New Mexico application, the Commission finds that an infill drilling program is necessary to effectively and efficiently drain the proration units in the Blanco-Mesaverde and Basin-Dakota pools in New Mexico and that the determinations made by New Mexico in this respect in Order Nos. R-1670-T and R-1670-V are supported by substantial evidence. This finding is based on Order Nos. R-1670-T and R-1670-V, and the data submitted with the New Mexico application.

The primary difference between the filing requirements of § 274.204 regarding new, onshore production wells, and the alternative plan set forth in the New Mexico application involves the requirements of § 274.204(f). Subsection (f) requires, in part, that the applicant, who is seeking a section 103 determination for a new well which is drilled into an existing proration unit, submit "appropriate geological evidence and engineering data [to demonstrate] that the new well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by any existing well within the proration unit." The New Mexico alternative plan proposes that the applicant satisfy the above requirement by merely specifying the appropriate New Mexico order authorizing an infill well drilling program. New Mexico asserts that the proposed alternative filing requirements will provide substantial evidence on which a determination of a new, onshore production well can by made. The New Mexico orders verify that the pertinent geological and engineering data showing the necessity for second wells in existing proration units within the subject pools has already been accumulated under oath at hearing before New Mexico.[4]

The Commission agrees that it is unnecessary for each applicant to present, on a well-by-well basis, the data required by subsection (f). Because New Mexico has already collected the pertinent geological and engineering data, issued effective and efficient drainage findings in Order Nos. R-1670-T and R-1670-V with regard to this data, and filed this data with the Commission, further documentation on a well-by-well basis by the applicant is unnecessary. Accordingly, the Commission concludes that an applicant requesting a section 103 determination for well(s) subject to those orders should reference the appropriate New Mexico order rather than submit geological and engineering data already on file with New Mexico and the Commission.

In view of the above discussion, the Commission further concludes that to eliminate unnecessary duplication, the requirement of § 271.305(b) that such data be included in the notice of determination is deemed satisfied as Order Nos. R-1670-T and R-1670-V constitute the explicit effective and efficient drainage finding required by § 271.305(b). The Commission also concludes the requirement of § 271.305(c) that the jurisdictional agency notify the Commission of its finding is deemed satisfied under the alternative plan approved by this order.

New Mexico also requested several other changes in the requirements of § 274.204. The New Mexico alternative plan proposes to modify the oath statement required by § 274.204(d) in three respects. First, the proposed plan would omit the statement required by § 274.204(d)(2) that "the well satisfies any applicable federal or state well spacing requirements." This portion of the oath statement tracks the language in section 103(c)(2) of the NGPA.[5] Because the controlling statute explicitly requires that wells must satisfy applicable well spacing requirements, the Commission believes that this oath statement is necessary and should be retained in the alternative filing requirements approved by today's order.

The New Mexico alternative plan also proposes to modify that portion of the oath statement contained in § 274.204(d)(3). Subsection (d)(3) requires the applicant to submit an oath statement that the subject well is *not* within a proration unit:

(i) Which was in existence at the time the surface drilling of the well began;

(ii) Which was applicable to the reservoir from which such natural gas is produced; and

[4] Certified copies of records relied on by New Mexico in adopting its poolwide infill well orders were included with its application for alternative filing requirements.

[5] The NGPA defines a section 103 new, onshore production well, in part, as a new well "which satisfies applicable Federal or State well-spacing requirements, if any."

(iii) Which applied to any other well which either produced natural gas in commercial quantities or the surface drilling of which was begun before February 19, 1977, and was thereafter capable of producing natural gas in commercial quantities.

The New Mexico plan proposes to require the applicant to submit an oath statement that the new well *is* (rather than is *not*) in a proration unit which satisfies the requirements of subsection (d)(3).

Under § 274.204(f) the applicant is not required to file the oath statement under § 274.204(d)(3) if the applicant is seeking a determination under the Commission's special rule in § 271.305 respecting a new well drilled in an existing proration unit. All wells for which applicants will seek section 103 determinations pursuant to this alternative plan will be subject to § 271.305 and § 274.204(f) as second wells within existing proration units covered by two New Mexico Orders Nos. R–1670–T and R–1670–V. These wells may qualify as new, onshore production wells *only* under the special rule of § 271.305. Since § 274.204(f) excuses applicants subject to the special rule of § 271.305 from submitting the oath statement required by § 274.204(d)(3), the Commission concludes that the oath statement proposed in the New Mexico alternative plan is neither necessary nor useful. Accordingly, this part of the oath statement is not included in the alternative filing requirements approved by this order.

Finally, the New Mexico alternative plan proposes to modify the oath statement required by § 274.204(d)(4). This section requires the applicant to state under oath that *"on the basis of the documents submitted in the application,* the applicant has concluded that to the best of his information, knowledge and belief, the natural gas for which he seeks a determination is produced from a new, onshore production well" (emphasis added). Under the alternative plan approved by this order, the applicant will not submit the record for Order Nos. R–1670–T and R–1670–V with the application. Accordingly, the oath statement required by § 274.204(d)(4) is modified for the purposes of the New Mexico alternative plan approved by this order to omit the requirement that the applicant's conclusion be based on "documents submitted in the application."

The New Mexico alternative plan also proposes to delete the requirement of § 274.204(e) that the applicant submit, "if the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files." Since the material required by § 274.204(e) must be submitted only "if the jurisdictional agency so requires," and since the Commission believes that the jurisdictional agency should be permitted to exercise its discretion in requiring certified copies, this provision is retained in the alternative plan approved by this order.

The alternative plan approved by this order also modifies the requirements of § 274.204(c) by requiring the applicant to locate and identify the subject proration unit.[6] Since the applicant must submit a location plat which locates and identifies the subject well and all other wells in the proration unit, the Commission believes it is appropriate that the location plat also locate and identify the subject proration unit.

### Public Procedures and Effective Date

A notice regarding the New Mexico application was issued on October 10, 1979. The Commission stated that comments on the proposed plan would be accepted if received on or before October 31, 1979. No comments were received. In view of the above discussion, the Commission approves the New Mexico alternative plan set forth in its application with modifications noted above. The Commission believes that good cause exists to make the alternative plan effective immediately for all determinations which have not yet become final under § 275.202 as of the day before the date of issuance of this order.

(Natural Gas Act, as amended, 15 U.S.C. 717 *et seq.;* Department of Energy Organization Act, 42 U.S.C. 7107, *et seq.;* Exec. Order No. 12009, 42 FR 46267; Natural Gas Policy Act of 1978, 15 U.S.C. 3301, *et seq.)*

In consideration of the foregoing, Part 274 of Subchapter H, Chapter I, title 18, Code of Federal Regulations is amended as set forth below, effective immediately.

By the Commission.

Kenneth F. Plumb,

*Secretary.*

## PART 274—DETERMINATIONS BY JURISDICTIONAL AGENCIES

1. Part 274 is amended in the table of contents under Subpart B by adding after § 274.207 the following:

274.208 Alternative filing and notice requirements accepted by the Commission.

2. Part 274 is further amended by adding, after § 274.207, § 274.208 to read as follows:

**§ 274.208 Alternative filing and notice requirements accepted by the Commission.**

(a) New Mexico Oil Conservation Division, Energy and Minerals Department.

(1) A person seeking a determination for purposes of Subpart C of Part 271 that an infill well, drilled in accordance with New Mexico Oil Conservation Division Order No. R–1670–T in the Blanco Mesaverde pool or Order No. R–1670–V in the Basin-Dakota pool, is a new, onshore production well, shall file with the New Mexico jurisdictional agency an application which contains, in lieu of the information specified in § 274.204, the following items:

(i) FERC Form No. 121;

(ii) The well completion report;

(iii) A location plat which locates and identifies the State law proration unit (as defined in § 271.305(a)(2)) and the well for which a determination is sought and all other wells within the State law proration unit in which the well for which a determination is sought is located;

(iv) A statement by the applicant, under oath:

(A) That the surface drilling of the well for which he seeks a determination was begun on or after February 19, 1977;

(B) That the well satisfies any applicable Federal or State well spacing requirements;

(C) That the applicant has concluded that to the best of his information, knowledge and belief, the natural gas for which he seeks a determination is produced from a new, onshore production well; and

(D) That the applicant has no knowledge of any other information not described in the application which is inconsistent with his conclusion;

(v) If the jurisdictional agency so requires, certified copies of records relied on by the applicant including copies of the agency's official files; and

(vi) A statement referencing New Mexico Oil Conservation Division Order No. R–1670–T if the well is located in the Blanco-Mesaverde pool or New Mexico Oil Conservation Division Order No. R–1670–V if the well is located in the Basin-Dakota pool.

(2) With respect to wells to which this section applies, receipt by the Commission of a notice of determination pursuant to § 274.104 shall be deemed to satisfy:

[6] Section 274.204(c) requires an applicant to submit "a location plat which locates and identifies the well for which a determination is sought and all other wells within the proration unit in which the well for which a determination is sought is located."

(i) The requirement of notice to the Commission under § 271.305(c); and

(ii) The requirement of § 271.305(b)(1) that appropriate geological and engineering data be included in the notice of determination.

[FR Doc. 80-1840 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

## DEPARTMENT OF THE TREASURY

### Customs Service

### 19 CFR Parts 10, 11, 24, 127, 132, 141, 142, 143, 144, 151, 158, 159, 172 and 173

[T.D. 80-26]

### Customs Regulations Relating to the Entry of Merchandise, Liquidation of Entries, Warehousing Periods, and Marking of Bulk Containers of Alcoholic Beverages, Amended; Correction

**AGENCY:** U.S. Customs Service, Department of the Treasury.

**ACTION:** Final rule—correction

**SUMMARY:** This document corrects several errors in T.D. 79-221, which amended the Customs Regulations to implement various aspects of Pub. L. 95-410, the "Customs Procedural Reform and Simplification Act of 1978", relating to the entry of imported merchandise, the liquidation of entries, warehousing periods, and the marking of bulk containers of alcoholic beverages.

**EFFECTIVE DATE:** January 21, 1980.

**FOR FURTHER INFORMATION CONTACT:** Benjamin H. Mahoney, Entry Procedures and Penalties Division, Office of Regulations and Rulings, U.S. Customs Service, 1301 Constitution Avenue, N.W., Washington, D.C. 20229 (202-566-5778).

**SUPPLEMENTARY INFORMATION:**

Background

Pub. L. 95-410, the "Customs Procedural Reform and Simplification Act of 1978", approved October 3, 1978, made singificant changes in the Customs laws relating to the entry of imported merchandise, the liquidation of entries, warehousing periods, and the marking of bulk containers of alcoholic beverages. Final amendments to the Customs Regulations implementing these changes were published as T.D. 79-221 in the Federal Register on August 9, 1979 (44 FR 46794).

This document corrects several errors in T.D. 79-221 as discussed below.

Inapplicability of Notice and Delayed Effective Date Procedures

Because this document is designed merely to correct errors in a previously published document amending the Customs Regulations, good cause is found for dispensing with the notice and delayed effective date provisions of 5 U.S.C. 552.

Inapplicability of Executive Order 12044

This document is not subject to the provisions of the Treasury Department directive (43 FR 52120) implementing Executive Order 12044, "Improving Government Regulations", because the document to which these corrections relate was in process before May 22, 1978, the effective date of the directive.

Drafting Information

The principal author of this document was Charles D. Ressin, Regulations and Research Division, U.S. Customs Service. However, personnel from other Customs offices participated in its development.

Corrections

In FR Doc. 79-24494 appearing as T.D. 79-221 in Volume 44 of the Federal Register at page 46794 in the issue of Thursday, August 9, 1979:

§ 10.31 [Corrected]

1. On page 46813, in the first column, the first cross-reference in the second sentence of § 10.31(a)(1) should read "10.36", rather than "10.35."

§ 11.6 [Corrected]

2. On page 46813, in the second column, the reference to the footnote at the end of § 11.6(a) should read "19 U.S.C. 467.[3]" rather than "19 U.S.C. 467.[2]".

3. On page 46813, in the third column, item 2. should read:

"2. Footnote 3 to Part 11 is amended to read as follows:

[3] The Secretary * * *"

§ 132.13 [Amended]

4. On page 46815, in the first column, the first sentence of section 132.13(a)(1)(ii) should read:

"(ii) *Absolute.* Absolute quota merchandise shall not be released under the immediate delivery procedure if the quota is nearing fulfillment." * * *

§ 141.61 [Amended]

5. On page 46817, in the third column, the cross-reference in the last sentence of section § 141.61(e)(1)(i) should read:

"* * * prescribed in paragraph (f)(2) of this section * * *".

6. On page 46821, in the second column, below "Part 142—ENTRY PROCESS", the introductory language should read: "Part 142 is revised to read as follows: * * *".

§ 142.6 [Amended]

7. On page 46823, in the first line of the third column, the word "delivered" should be substituted for the word "presented" in § 142.6(b).

§ 142.16 [Amended]

8. On page 46824, in the third column, the cross-reference in the second sentence of § 142.16(a) relating to the time period to file documentation with the entry summary should read: "142.12(b)" rather than "142.3".

§ 142.23 [Amended]

9. On page 46826, in the third column, in § 142.23, delete the period, and add "* * * or, for quota class merchandise, within the quota period, whichever expires first.".

(R.S. 251, as amended, sec. 624, 46 Stat. 759 (19 U.S.C. 66, 1624.); Pub. L. 95-410 (October 3, 1978))

Approved: January 7, 1980.

William T. Archey,

*Acting Commissioner of Customs.*

Richard J. Davis,

*Assistant Secretary of the Treasury.*

[FR Doc. 80-1873 Filed 1-18-80; 8:45 am]

BILLING CODE 4810-22-M

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

### Office of Assistant Secretary for Housing—Federal Housing Commissioner

### 24 CFR Parts 203, 220, 222, 226, and 234

[Docket No. R-80-763]

### Mutual Mortgage Insurance and Insured Home Improvement Loans; Changes in Maximum Mortgage Amounts

**AGENCY:** Department of Housing and Urban Development (HUD), Office of the Assistant Secretary for Housing—Federal Housing Commissioner.

**ACTION:** Final rule.

**SUMMARY:** The Housing and Community Development Amendments of 1979 amended the National Housing Act to permit increased mortgage amounts under HUD's single family mortgage insurance programs. In addition, Section 203(i) was amended to reduce the minimum lot size and relax the road access requirement for farm housing. This rule implements those statutory changes.

**EFFECTIVE DATE:** January 21, 1980

**FOR FURTHER INFORMATION CONTACT:** William L. Halpern, Director, Single Family Development Division, Department of Housing and Urban Development, Room 9270, 451 Seventh Street SW., Washington, D.C. 20410, (202) 755-6720. (This is not a toll-free number.)

**SUPPLEMENTARY INFORMATION:** The Housing and Community Development Amendments of 1979 was signed into law on December 21, 1979. The following changes are being made to Chapter II of 24 CFR to increase the maximum mortgage amounts under the following single family programs: Sections 203(b), 213, 220(d)(3)(A)(i), 222, 234(c) and 809 of the National Housing Act. For a one-unit dwelling under Section 203, the new mortgage amount is $67,500, two-unit is $76,000, three-unit is $92,000 and four-unit is $107,000. Section 203(i) was amended to reduce the minimum lot size and relax the road access requirement for farm housing.

The Secretary has determined that, in light of the current economic situation, it is urgent that the benefits afforded by these amendments be made available as soon as possible. Publishing a notice of proposed rulemaking and giving the public an opportunity to comment on these amendments would cause a substantial delay in making the benefits available. Therefore, the Secretary finds that notice and public procedure on these amendments would be contrary to the public interest. Since these amendments relieve restrictions contained in the present regulations, it is not necessary to delay the effective date of these amendments for the 30-day period provided in 5 U.S.C. § 553(d). In addition, the Chairmen and Ranking Minority Members of the Committee on Banking, Housing and Urban Affairs of the Senate and the Committee on Banking, Finance and Urban Affairs of the House of Representatives have waived the delay of effective date required by Section 7(o)(3) of the Department of Housing and Urban Development Act. Accordingly, these amendments will become effective upon publication of this rule in the Federal Register, on the date set forth above.

A Finding of Inapplicability respecting the National Environmental Policy Act of 1969 has been made in accordance with HUD procedures. A copy of this Finding of Inapplicability will be available for public inspection during regular business hours in the Office of Rules Docket Clerk, Office of the Secretary, Room 5218, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, D.C. 20410.

Accordingly, the Secretary of Housing and Urban Development amends Chapter II of 24 CFR as follows:

## PART 203—MUTUAL MORTGAGE INSURANCE AND INSURED HOME MORTGAGE IMPROVEMENT LOANS

### Subpart A—Eligibility Requirements

1. In § 203.18, subparagraphs (a)(1)(i), (ii), (iii) and (iv), and the introductory language of paragraph (d) are amended to read as follows:

**§ 203.18 Maximum mortgage amounts.**

(a) * * *

(1) * * *

(i) $67,500 for a one-family residence.

(ii) $76,000 for a two-family residence.

(iii) $92,000 for a three-family residence.

(iv) $107,000 for a four-family residence.

* * * * *

(d) *Outlying area properties.* A mortgage covering a single-family residence located in an area where the Commissioner finds it is not practicable to obtain conformity with many of the requirements essential to insurance of mortgages in built-up urban areas, or to be used as a farm home on a plot of land, two and one-half or more acres in size adjacent to an all-weather public road, shall not exceed:

* * * * *

## PART 220—URBAN RENEWAL MORTGAGE INSURANCE AND INSURED IMPROVEMENT LOANS

### Subpart A—Eligibility Requirements—Homes

2. In § 220.25, paragraphs (a), (b), (c), (d) and (e) are amended as follows:

**§ 220.25 Maximum mortgage amounts—dollar limitation.**

* * * * *

(a) $67,500 for a one-family residence.

(b) $76,000 for a two-family residence.

(c) $92,000 for a three-family residence.

(d) $107,000 for a four-family residence.

(e) $107,000 plus not to exceed $8,250 for each additional family unit in excess of four.

## PART 222—SERVICEMEN'S MORTGAGE INSURANCE

### Subpart A—Eligibility Requirements

3. Section 222.3 is amended to read as follows:

**§ 222.3 Maximum mortgage amount; dollar limitation.**

The mortgage shall involve a principal obligation in an amount not in excess of $67,500, except that a mortgage meeting the requirements of §§ 203.18(d), 221.10, or 221.11 of this chapter shall not exceed the dollar limitation provided in the applicable section.

## PART 226—ARMED SERVICES HOUSING—CIVILIAN EMPLOYEES (SEC. 809)

### Subpart A—Eligibility Requirements

4. In § 226.4, paragraphs (a), (b), (c) and (d) are amended to read as follows:

**§ 226.4 Maximum mortgage amount; dollar limitation.**

* * * * *

(a) $67,500 in the case of a dwelling designed principally for a one-family residence.

(b) $76,000 in the case of a two-family residence.

(c) $92,000 in the case of a three-family residence.

(d) $107,000 in the case of a four-family residence. In addition to the dollar limitation prescribed in this section, the mortgage amount is subject to a loan-to-value limitation as provided in § 226.5.

## PART 234—CONDOMINIUM OWNERSHIP MORTGAGE INSURANCE

### Subpart A—Eligibility Requirements—Individually Owned

5. In § 234.27, subparagraph (a)(1) is amended to read as follows:

**§ 234.27 Maximum mortgage amounts.**

(a) * * *

(1) $67,500.

* * * * *

Authority: (Sec. 211, National Housing Act, as amended, 12 U.S.C. 1715b). Issued at Washington, D.C., January 15, 1980.

Lawrence B. Simons,

*Assistant Secretary for Housing—Federal Housing Commissioner.*

[FR Doc. 80-1972 Filed 1-18-80; 8:45 am]

BILLING CODE 4210-01-M

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**24 CFR Parts 207, 213, 220, 221, 231, 234 and 236**

**[Docket No. R-80-764]**

## Mortgage and Loan Insurance Programs Under the National Housing Act

**AGENCY:** Department of Housing and Urban Development/Office of the Assistant Secretary for Housing—Federal Housing Commissioner.

**ACTION:** Final rule.

**SUMMARY:** This final rule amends 24 CFR §§ 207.04, 207.32a, 213.7, 220.507, 221.514, 231.6, 234.530 and 236.12 to increase from 50 percent to 75 percent the maximum percentage by which mortgage amount limitations may be increased in high cost areas. In addition, this rule adds a provision to each of those sections permitting the Commissioner, on a case-by-case basis, to increase the mortgage amount limitations by up to 90 percent.

**EFFECTIVE DATE:** January 21, 1980.

**FOR FURTHER INFORMATION CONTACT:** Frank D. Brown, Office of Housing, Multifamily Housing Development, Development Division, Room 6116, 451 7th Street SW., Washington, D.C. 20410. (202) 755-9280. (This is not a toll free number.)

**SUPPLEMENTARY INFORMATION:** Section 314 of the Housing and Community Development Amendments of 1979 amended Sections 207(c)(3), 213(b)(2), 220(d)(3)(B)(iii), 221(d)(3)(ii), 221(d)(4)(ii), 231(c)(2), and 234(e)(3) of the National Housing Act. The amendment did two things. First, it raised from 50 percent to 75 percent the maximum percentage by which the Secretary may, in high cost geographical areas, increase the dollar amount limitations for mortgages insured under those sections. Second, it provided that the Secretary may increase those mortgage amount limitations, on a project-by-project basis, but not to exceed 90 percent.

This final rule implements the statutory change by making parallel revisions in the regulations governing the affected mortgage insurance programs.

The Secretary has determined that, in light of the current economic situation, it is urgent that the benefits afforded by these amendments be made available as soon as possible. Publishing a notice of proposed rulemaking and giving the public an opportunity to comment on these amendments would cause a substantial delay in making the benefits available. Therefore, the Secretary finds that notice and public procedure on these amendments would be contrary to the public interest. Since these amendments relieve restrictions contained in the present regulations, it is not necessary to delay the effective date of these amendments for the 30-day period provided in 5 U.S.C. 553(d). In addition, the Chairmen and Ranking Minority Members of the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on Banking, Finance and Urban Affairs of the House of Representatives have waived the delay of effective date required by Section 7(o)(3) of the Department of Housing and Urban Development Act. Accordingly, these amendments will become effective upon publication of this rule in the Federal Register, on the date set forth above.

A Finding of Inapplicability respecting the National Environmental Policy Act of 1969 has been made in accordance with HUD procedures. A copy of this Finding of Inapplicability will be available for public inspection during regular business hours in the Office of the Rules Docket Clerk, Office of the General Counsel, Room 5218, Department of HUD, 451 7th Street SW., Washington, D.C. 20410.

Accordingly, Subchapter B of Chapter II of Title 24, Code of Federal Regulations, is amended as follows:

**§ 207.4 [Amended]**

1. By revising § 207.4(c)(1) to read as follows;

* * * * *

(c) *Increased mortgage amount*—high cost areas.

(1) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraphs (a)(2) and (b) of this section. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

**§ 207.32a [Amended]**

2. By revising § 207.32a(b)(2)(ii)(A) to read as follows:

* * * * *

(b) * * *

(2) * * *

(ii) *Increased mortgage amount—high cost areas.* (A) In any geographical area where the Commissioner finds that high cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraphs (b)(2) and (b)(2)(i) of this section. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

**§ 213.7 [Amended]**

3. By revising § 213.7(d)(1) to read as follows:

* * * * *

(d) *Increased mortgage amounts—high cost areas.* (1) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraphs (a)(2) and (g) of this section. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

**§ 220.507 [Amended]**

4. By revising § 220.507(c)(1) to read as follows:

* * * * *

(c) *Increased mortgage amount—high cost areas.* (1) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraphs (a) and (b) of this section. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

**§ 221.514 [Amended]**

5. By revising § 221.514(c)(1) to read as follows:

* * * * *

(c) *Increased mortgage amount—high cost areas.* (1) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraphs (a)(1) and (b) of this section. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

6. By revising § 231.6(a) to read as follows:

**§ 231.6 Increased mortgage amount—high cost areas.**

(a) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in §§ 231.3(a) and 231.5. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may

increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

§ 234.530 [Amended]

7. By revising § 234.530(b)(1) to read as follows:

* * * * *

(b) *High cost areas.* (1) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraph (a) of this section and in § 234.525(b). In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

§ 236.12 [Amended]

8. By revising § 236.12(c)(1) to read as follows:

* * * * *

(c) *Increased mortgage amount—high cost areas.* (1) In any geographical area where the Commissioner finds that cost levels so require, the Commissioner may increase, by not to exceed 75 percent, the dollar amount limitations set forth in paragraphs (a)(1) and (b) of this section. In such high cost areas, where the Commissioner determines it necessary on a project-by-project basis, the Commissioner may increase these dollar amount limitations by not to exceed 90 percent.

* * * * *

(Sec. 314, Pub. L. 96-153; Section 211, National Housing Act, as amended; 12 U.S.C. 1715b)

Issued at Washington, D.C., on January 15, 1980.

Morton A. Baruch,

*Deputy Assistant Secretary for Housing—Federal Housing Commissioner.*

[FR Doc. 80-1973 Filed 1-18-80; 8:45 am]

BILLING CODE 4210-01-M

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## DEPARTMENT OF THE TREASURY

## Internal Revenue Service

## 26 CFR Part 404

[T. D. 7666]

# Disclosure of Returns and Return Information in Connection With Procurement of Property and Services for Tax Administration Purposes

**AGENCY:** Internal Revenue Service, Treasury.

**ACTION:** Temporary Regulations.

**SUMMARY:** This document contains amendments to the temporary regulations relating to the disclosure under section 6103 (n) of the Internal Revenue Code of 1954 of returns and return information in connection with the processing, storage, transmission, and reproduction of the returns and return information, and the programming, maintenance, repair, testing, and procurement of equipment, for purposes of tax administration. These amendments extend to other bureaus and offices of the Treasury Department and to State tax agencies, bodies and commissions described in section 6103 (d) of the Code the authority to make these disclosures under section 6103 (n) for Federal and State tax administration purposes, respectively. They affect all disclosures by the Treasury Department and State tax agencies, bodies, or commissions to persons described in section 6103 (n).

**DATE:** The regulations apply to disclosures of returns and return information after December 31, 1976.

**FOR FURTHER INFORMATION CONTACT:** David E. Dickinson of the Legislation and Regulations Division, Office of the Chief Counsel, Internal Revenue Service, 1111 Constitution Avenue, N.W., Washington, D.C. 20224 (Attention: CC:LR:T) (202-566-3218).

**SUPPLEMENTARY INFORMATION:**

### Background

This document contains amendments to the temporary regulations relating to disclosure of returns and return information under section 6103 (n) of the Internal Revenue Code of 1954 as added by section 1202 of the Tax Reform Act of 1976 (Pub. L. 94-455, 90 Stat. 1681).

Section 6103 (n) of the Code authorizes the disclosure, pursuant to Treasury regulations, of returns and return information to the extent necessary in connection with the processing, storage, transmission, and reproduction of the returns and return information, and the programming, maintenance, repair, testing, and procurement of equipment, for purposes of tax administration. Section 6103 (b) (4) defines "tax administration" to include the administration of the internal revenue laws and statutes of a State.

Existing § 404.6103 (n)-1 of the temporary regulations authorizes disclosures under section 6103 (n) only by the Internal Revenue Service and its Chief Counsel's office for Federal tax administration purposes. Because section 6103 (n) authorizes disclosures of returns and return information by other bureaus and offices of the Treasury Department and by State tax agencies, bodies, and commissions for Federal and State tax administration purposes as well, these amendments to § 404.6103 (n)-1 would so extend this disclosure authority.

### Waiver of Procedural Requirement of Treasury Directive

There is need for expeditious adoption of the regulations contained in this document in order to prevent impairment of the present ability of the Treasury Department and State tax agencies, bodies, and commissions to satisfactorily administer Federal and State tax laws. For this reason, Jerome Kurtz, Commissioner of Internal Revenue, has determined that the provisions of paragraphs 8 through 14 of the Treasury Directive implementing Executive Order 12044 must be waived.

### Drafting Information

The principal author of this regulation was David E. Dickinson of the Legislation and Regulations Division of the Office of Chief Counsel, Internal Revenue Service. However, personnel from other offices of the Internal Revenue Service and Treasury Department participated in developing the regulation, both on matters of substance and style.

### *Adoption of Amendments to the Regulations*

In order to amend the Temporary Regulations on Procedure and Administration (26 CFR Part 404) to allow for certain disclosures by bureaus and offices of the Treasury Department and by an agency, body, or commission described in section 6103 (d) of the Internal Revenue Code of 1954 for purposes described in section 6103 (n) of the Code, paragraphs (a), (b), and (d) of § 404.6103 (n)-1 of such regulations are amended, and a new paragraph (e) is added immediately after paragraph (d). These amended paragraphs and the added paragraph read as follows:

**§ 404.6103 (n)-1 Disclosure of returns and return information in connection with procurement of property and services for tax administration purposes.**

(a) *General rule.* Pursuant to the provisions of section 6103(n) of the Internal Revenue Code of 1954 and subject to the requirements of paragraphs (b), (c), and (d) of this section, officers or employees of the Treasury Department or a State tax agency are authorized to disclose returns and return information (as defined in section 6103 (b)) to any person (including, in the case of the Treasury Department, any person

described in section 7513(a)), or to an officer or employee of such person, to the extent necessary in connection with contractual procurement of—

(1) Equipment or other property, or

(2) Services relating to the processing, storage, transmission, or reproduction of such returns or return information, or to the programming, maintenance, repair, or testing of equipment or other property.

for purposes of tax administration (as defined in section 6103(b)(4)). No person, or officer or employee of such person, to whom a return or return information is disclosed by an officer or employee of the Treasury Department or the State tax agency under the authority of this paragraph shall in turn disclose such return or return information for any purpose other than as described in this paragraph, and no such further disclosure for any such described purpose shall be made by such person, officer, or employee to anyone, other than another officer or employee of such person whose duties or responsibilities require such disclosure for a purpose described in this paragraph, without written approval by the Internal Revenue Service.

(b) *Limitations.* For purposes of paragraph (a) of this section, disclosure of returns or return information in connection with contractual procurement of property or services described in such paragraph will be treated as necessary only if such procurement or the performance of such services cannot otherwise be reasonably, properly, or economically carried out or performed without such disclosure. Thus, for example, disclosures of returns or return information to employees of a contractor for purposes of programming, maintaining, repairing, or testing computer equipment used by the Internal Revenue Service or a State tax agency should be made only if such services cannot be reasonably, properly or economically performed by use of information or other data in a form which does not identify a particular taxpayer. If, however, disclosure of returns or return information is in fact necessary in order for such employees to reasonably, properly, or economically perform the computer related services, such disclosures should be restricted to returns or return information selected or appearing at random. Further, for purposes of paragraph (a) disclosure of returns or return information in connection with the contractual procurement of property or services described in such paragraph should be made only to the extent necessary to reasonably, properly, or economically conduct such procurement activity. Thus, for example, if an activity described in paragraph (a) can be reasonably, properly, and economically conducted by disclosure of only parts or portions of a return or if deletion of taxpayer identity information (as defined in section 6103(b)(6)) reflected on a return would not seriously impair the ability of the contractor or his officers or employees to conduct the activity, then only such parts or portions of the return, or only the return with taxpayer identity information deleted, should be disclosed.

* * * * *

(d) *Safeguards.* Any person to whom a return or return information is disclosed as authorized by paragraph (a) of this section shall comply with all applicable conditions and requirements which may be prescribed by the Internal Revenue Service for the purposes of protecting the confidentiality of returns and return information and preventing disclosures of returns or return information in a manner unauthorized by paragraph (a). The terms of any contract between the Treasury Department or a State tax agency and a person pursuant to which a return or return information is or may be disclosed for a purpose described in paragraph (a) shall provide, or shall be amended to provide, that such person, and officers and employees of the person, shall comply with all such applicable conditions and restrictions as may be prescribed by the Internal Revenue Service by regulation, published rules or procedures, or written communication to such person. If the Service determines that any person, or an officer or employee of any such person, to whom returns or return information has been disclosed as provided in paragraph (a) has failed to, or does not, satisfy such prescribed conditions or requirements, the Service may take such actions as are deemed necessary to ensure that such conditions or requirements are or will be satisifed, including—

(1) Suspension or termination of any duty or obligation arising under a contract with the Treasury Department referred to in this paragraph or suspension of disclosures by the Treasury Department otherwise authorized by paragraph (a) of this section, or

(2) Suspension of further disclosures of returns or return information by the Service to the State tax agency,

until the Service determines that such conditions and requirements have been or will be satisfied.

(e) *Definition.* For purposes of this section—

(1) The term "Treasury Department" includes the Internal Revenue Service and the Office of the Chief Counsel for the Internal Revenue Service, and

(2) The term "State tax agency" means an agency, body, or commission described in section 6103(d).

Because there is need for immediate guidance with respect to the provisions contained in this Treasury decision, it is found impracticable to issue it with notice and public procedure under subsection (b) of section 553 of Title 5 of the United States Code or subject to the effective date limitations of subsection (b) of that section.

This Treasury decision is issued under the authority contained in sections 6103 (n) and 7805 of the Internal Revenue Code of 1954 (90 Stat. 1681, 68A Stat. 917; 26 U.S.C. 6103(n), 7805).

Approved: January 8, 1980.

Jerome Kurtz,

*Commissioner of Internal Revenue.*

Approved: January 8, 1980.

Donald C. Lubick,

*Assistant Secretary of the Treasury.*

[FR Doc. 80-1873 Filed 1-18-80; 8:45 am]

BILLING CODE 4830-01-M

## DEPARTMENT OF DEFENSE

### Office of the Secretary

### 32 CFR Part 65

[DoD Directive 1304.19] [1]

### Nomination of Chaplains for the Armed Forces

**AGENCY:** Office of the Secretary of Defense.

**ACTION:** Final rule.

**SUMMARY:** This rule provides for selection of chaplains in the Armed Forces of the United States and sets forth a definition using a set of criteria to determine a religious faith groups' eligibility to provide chaplains to the Armed Forces. Education requirements are clearly stated. It is the responsibility of the Armed Forces Chaplains Board to recognize a religious faith group, and the Military Services to select the nominated chaplains.

**EFFECTIVE DATE:** January 9, 1980.

**FOR FURTHER INFORMATION CONTACT:** Chaplain Samuel G. Powell, Colonel USAF, OASD (MRA&L), Room 3B936, Pentagon, Washington, D.C. 20301, Telephone 697-9015.

[1] Copies may be obtained, if needed, from the U.S. Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120, Attn: Code 301

**SUPPLEMENTARY INFORMATION:** In FR Doc. 78-2339 appearing in the Federal Register on February 6, 1978 (43 FR 4856), the Office of the Secretary published Part 65. In 44 FR 50616, August 29, 1979, the Office of the Secretary of Defense published a revised Part 65 as a proposed rule to solicit comments from interested persons. This revision establishes criteria to determine a religious group's eligibility for the chaplaincy of the Military Services and to define clearly educational requirements. No substantive comments from the public were received.

Accordingly, we are adopting the proposed rule, revising Chapter I, 32 CFR Part 65, reading as follows:

## PART 65—NOMINATION OF CHAPLAINS FOR THE ARMED FORCES

Sec.
65.1 Reissuance and purpose.
65.2 Applicability.
65.3 Policy.
65.4 Criteria.
65.5 Responsibilities.

Authority: Secs. 3293, 5576, and 8293 of 10 U.S.C. and Executive Order 11390.

### § 65.1 Reissuance and purpose.

This part is reissued to establish (a) criteria to determine a religious group's eligibility for the chaplaincy of the Military Services; and (b) the minimum educational and ecclesiastical endorsement requirements for appointment in the chaplaincy of the Military Services.

### § 65.2 Applicability.

The provisions of this part apply to the Office of the Secretary of Defense, the Military Departments, and the Organization of the Joint Chiefs of Staff (hereafter referred to as "DoD Components"). As used herein, the term "Military Services" refers to the Army, Navy, Air Force, and Marine Corps.

### § 65.3 Policy.

It is DoD policy that military personnel receive direction and guidance in matters of spiritual, moral, religious, and personal well-being in ways and on occasions appropriate to their respective, chosen religious groups. Whenever possible, such guidance should be provided by a chaplain of the military person's religious group. When a chaplain of a religious group cannot be provided, this guidance should be met through the cooperative efforts of other chaplains, civilian clergy, or lay leaders.

### § 65.4 Criteria.

(a) Religious groups of the United States that seek to become ecclesiastical agencies in order to endorse candidates for the chaplaincy must obtain recognition from the Armed Forces Chaplains Board. As a prerequisite to receiving such recognition, each religious group must:

(1) Have ecclesiastical authority to prepare and designate clergy for the chaplaincy.

(2) Have enough adherents to warrant the effective use of chaplains.

(3) Provide ecclesiastical validation, support, and supervision of its chaplains.

(4) Provide chaplains who are willing to respect the integrity of and work in cooperation with other religious groups.

(5) Abide by the regulations and policies of the Armed Forces Chaplains Board and the Military Services.

(b) The Armed Forces Chaplains Board may revoke its recognition of an approved ecclesiastical endorsing agency that fails to comply with any provisions of this part by providing the agency with a notice of the reasons for the revocation and a reasonable opportunity to respond in writing.

(c) The following are the educational requirements for chaplain appointments. The applicant shall:

(1) Possess 120 semester hours of undergraduate credits (or the equivalent) from a college or university that is in the *Education Directory—Colleges and Universities* (hereafter referred to as the "Directory"); or have completed 120 semester hours of credit (or the equivalent) from a school not in the Directory but from which credits could be transferred to a school listed in the Directory; and

(2) Possess a Master of Divinity (or an equivalent theological degree) or have completed 3 resident years of graduate-level study in theology or related subjects that lead to ordination and ecclesiastical endorsement and that qualify the applicant to perform professional functions as a chaplain. The applicant must complete professional educational work at a graduate school:

(i) That is (A) a member of the American Association of Theological Schools; (B) listed in the Official Catholic Directory; or (C) independent of a college or university but accredited by a regional accrediting agency or association listed in the Directory; or

(ii) If the graduate school is not included in § 65.4(c)(2)(i), the applicant may be accepted if all other educational requirements are met and if a statement is submitted by a school referred to in § 65.4(c)(2)(i) that the applicant's credits are transferable to the school issuing the statement.

(d) *Ecclesiastical Endorsement of Chaplains.* As a prerequisite to appointment as a chaplain, an applicant must receive endorsement from an ecclesiastical endorsing agency recognized by the Armed Forces Chaplains Board. In granting ecclesiastical endorsement, ecclesiastical endorsing agents are requested to use DD Form 2088, Ecclesiastical Endorsement Approval.[2] Additional copies of this form may be obtained from the Executive Director, Armed Forces Chaplains Board. This endorsement shall certify that the applicant is:

(1) A fully ordained or qualified priest, rabbi, or minister of religion;

(2) Actively engaged in a denominationally approved vocation; and

(3) Recommended as being spiritually, morally, intellectually, and emotionally qualified to represent the applicant's religious body in the chaplaincy of the Armed Forces.

### § 65.5 Responsibilities.

The Chief of Chaplains of each Military Service shall implement this Part.

H. E. Lofdahl,
*Director, Correspondence and Directives, Washington Headquarters Services, Department of Defense.*
January 16, 1980.
[FR Doc. 80-1829 Filed 1-18-80; 8:45 am]
BILLING CODE 3810-70-M

## ENVIRONMENTAL PROTECTION AGENCY

## 40 CFR Part 52

[FRL 1396-5]

## Approval and Promulgation of Ohio State Implementation Plans for Sulfur Dioxide; Correction

**AGENCY:** Environmental Protection Agency.

**ACTION:** Correction to final rule.

**SUMMARY:** This action is to correct two errors in the amendment to the Ohio State Implementation Plan for sulfur dioxide published on August 15, 1979 (44 FR 47769).

**EFFECTIVE DATE:** January 21, 1980.

**FOR FURTHER INFORMATION CONTACT:** Debra Marcantonio, U.S. Environmental Protection Agency, Air Programs Branch Region V, 230 South Dearborn Street, Chicago, Illinois, 60604, (312) 886-6039.

**SUPPLEMENTARY INFORMATION:** On August 15, 1979, U.S. Environmental

[2] May be obtained by writing to the Executive Director, Armed Forces Chaplain Board, OASD(MRA&L), The Pentagon, Washington, D.C. 20301.

Protection Agency (USEPA) promulgated an amendment to the Ohio State Implementation Plan for sulfur dioxide (44 FR 47769). This action corrects two errors which appeared in the Federal Register.

The Federal Register listed the regulation as under Part 52 of Chapter I, Title 40, Subpart KKK—Ohio. The correct subpart is Subpart KK—Ohio.

On September 20, 1979 the Republic Steel Company notified the U.S. Environmental Protection Agency that the final rule contained an error in regards to hydrogen sulfide emissions from Republic Steel's coke battery number 4 in Warren, Ohio.

These errors are being corrected today.

Part 52 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

### Subpart KK—Ohio

Section 52.1881 is amended by revising paragraph (b)(60)(iii)(C) as follows:

**§ 52.1881 Control strategy: Sulfur oxides: (sulfur dioxide).**

* * * * *

(b) Regulations for the control of sulfur dioxide in the State of Ohio.

* * * * *

(60) Air Trumbull County

* * * * *

(iii) * * *

(C) 0.00 grains of hydrogen sulfide per 100 dry standard cubic feet of coke oven gas from coke ovens number 1 and 2. Coke battery number 4 is subject to the prevention of significant deterioration regulation with an emission limitation prohibiting the combustion of coke oven gas unless it contains a concentration of sulfur compounds, expressed as $H_2S$, of less than 35 grains per 100 dry standard cubic feet of coke oven gas produced.

* * * * *

Dated: January 11, 1980.

John McGuire,

*Regional Administrator.*

[FR Doc. 80-1859 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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## 40 CFR Part 180

[FRL 1395-6; PP 6F1860/R228]

## Tolerances and Exemptions From Tolerances for Pesticide Chemicals in or on Raw Agricultural Commodities; Thiabendazole

**AGENCY:** Office of Pesticide Programs, Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This rule establishes tolerances for residues of the fungicide thiabendazole on sugar beets at 6 parts per million (ppm) and in eggs and the meat, fat, and meat byproducts of poultry at 0.1 ppm. The amendment was requested by Merck & Co. This rule establishes maximum permissible levels for residues of thiabendazole in or on sugar beets, eggs, and the meat, fat, and meat byproducts of poultry.

**EFFECTIVE DATE:** Effective on January 21, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Henry Jacoby, Product Manager (PM) 21, Registration Division (TS-767), Office of Pesticide Programs, EPA, 401 M Street, SE, Washington, DC 20460 (202/755-2562).

**SUPPLEMENTARY INFORMATION:** On November 19, 1979, the EPA published a notice of proposed rulemaking in the Federal Register (44 FR 66216) in response to a pesticide petition (PP 6F1860) submitted to the Agency by Merck & Co., Inc., Rahway, NJ 97965. This petition proposed that 40 CFR 180.242 be amended by increasing the established tolerance for residues of the fungicide thiabendazole (2-(4-thiazoyl)benzimidazole) in or on the raw agricultural commodity sugar beets without tops (preharvest) from 0.25 ppm to 6 ppm (pre- and postharvest) and by including tolerances for combined residues of thiabendazole and its metabolite 5-hydroxythiabendazole in eggs and the meat, fat, and meat byproducts of poultry at 0.1 ppm. No comments or requests for referral to an advisory committee were received in response to this notice of proposed rulemaking.

It has been concluded, therefore, that the proposed amendment to 40 CFR 180.242 should be adopted without change, and it has been determined that this regulation will protect the public health.

Any person adversely affected by this regulation may, on or before February 20, 1980, file written objections with the Hearing Clerk, EPA, Rm. M-3708 (A-110), 401 M St., SW, Washington, DC 20460. Such objections should be submitted in triplicate and specify the provisions of the regulation deemed to be objectionable and the grounds for the objections. If a hearing is requested, the objections must state the issues for the hearing. A hearing will be granted if the objections are supported by grounds legally sufficient to justify the relief sought.

Under Executive Order 12044, EPA is required to judge whether a regulation is "significant" and therefore subject to the procedural requirements of the Order or whether it may follow other specialized development procedures. EPA labels these other regulations "specialized". This regulation has been reviewed, and it has been determined that it is a specialized regulation not subject to the procedural requirements of Executive Order 12044.

Effective on January 21, 1980, Part 180, Subpart C, § 180.242 is amended by alphabetically inserting sugar beets at 6 ppm in paragraph (a) and eggs and the meat, fat, and meat byproducts of poultry at 0.1 ppm in paragraph (b) as follows:

Dated: January 11, 1980.

(Sec. 408(e), Federal Food, Drug, and Cosmetic Act (21 U.S.C. 346a(e))

Edwin L. Johnson,

*Deputy Assistant Administrator for Pesticide Programs.*

Part 180, Subpart C, § 180.242 is amended by alphabetically inserting sugar beets at 6 ppm in paragraph (a) and eggs and the meat, fat, and meat byproducts of poultry at 0.1 ppm in paragraph (b), as follows:

**§ 180.242 Thiabendazole; tolerances for residues.**

(a) * * *

| Commodity: | Parts per million |
|---|---|
| * * * * * | |
| Beets, sugar, without tops (pre- and post-H) | 6 |
| * * * * * | |

(b) * * *

| Commodity: | Parts per million |
|---|---|
| * * * * * | |
| Eggs | 0.1 |
| Poultry | 0.1 |
| Poultry, mbyp | 0.1 |
| Poultry, meat | 0.1 |

[FR Doc. 80-1839 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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## FEDERAL COMMUNICATIONS COMMISSION

## 47 CFR Part 73

[Do. No. BC 21504; RM-2929, RM-3065 and RM-3066]

## FM assignment to Blytheville, Ark., Henderson, Ky., and Wickliffe, Ky.

**AGENCY:** Federal Communications Commission.

**ACTION:** Report and Order.

**SUMMARY:** FCC assigns Channel 240A to both Wickliffe, Kentucky, and Henderson, Tennessee. In assigning the channel to these two communities, the Commission modified the license of Station KHLS-FM to specify operation on Channel 242 in lieu of its present

channel, 241. This action is expected to bring a first FM radio station to both Wickliffe and Henderson. These channel assignments resulted from counterproposals filed by Usher Broadcasting Company and Purchase Sound, Inc.

**DATE:** Effective: June 1, 1982.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Freda Lippert Thyden, Broadcast Bureau (202) 632-7792.

**SUPPLEMENTARY INFORMATION:** Report and Order (Proceeding Terminated).

Adopted: January 9, 1980.

Released. January 16, 1980.

By the Chief, Policy and Rules Division.

1. The Commission has before it the *Notice of Proposed Rule Making and Order to Show Cause,* 43 FR 1515, released December 23, 1977, which proposed a second FM assignment, Channel 240A, to Mayfield, Kentucky, with a substitution of Channel 242 for Channel 241 at Blytheville, Arkansas. Comments were filed in response to the *Notice* by Usher Broadcasting Company, Purchase Sound, Inc., Sudbury Services, Inc., and West Kentucky Broadcasting Co., Inc.

2. As a consequence of the *Notice,* Usher Broadcasting submitted a counterproposal requesting the assignment of Channel 240A to Wickliffe, Kentucky, as its first FM allocation. A second counterproposal, filed by Purchase Sound, Inc., the original petitioner in this proceeding, requested the assignment of Channel 240A to Henderson, Tennessee. All three communities, however, could not be assigned Channel 240A. Allocation of that frequency could be made to Henderson and, because of spacing requirements, either to Mayfield or Wickliffe. A decision as to which community, Mayfield or Wickliffe, better deserves the assignment, however, is no longer required since Purchase Sound has recently withdrawn its petition to allocate Channel 240A to Mayfield, Kentucky.[1] Thus, the only question remaining is whether Wickliffe and Henderson warrant the assignment of an FM channel.

3. Before proceeding to resolve the above issue, we note that in order to allocate Channel 240A to either of the communities in question, Channel 242 must be substituted for Channel 241 at Blytheville, Arkansas. Channel 241 is occupied by Station KHLS, licensed to Sudbury Services ("Sudbury"). If its license is modified, Sudbury is entitled to reimbursement from the ultimate licensee(s) of Channel 240A at Wickliffe or Henderson for all necessary and reasonable expenses incurred in the channel change. If both communities receive a Channel 240A allocation, the ultimate licensees will be obligated to share in the reimbursement cost.

4. Purchase Sound ("Purchase"), recognized the reimbursement requirement in regard to its Mayfield proposal. In its Henderson proposal, however, Purchase failed to furnish a statement as to its intention to assume either in whole or in part the financial cost involved in the channel change required for Station KHLS. Usher Broadcasting ("Usher") also failed to make a reimbursement statement in regard to its Wickliffe proposal. Without such a statement an FM allocation cannot be made. Consequently, we requested information to this effect in a *Request for Supplemental Information,* 43 FR 47985, released October 18, 1978. In response to this inquiry,[2] both Usher and Purchase advised the Commission that they will provide reasonable reimbursement to Station KHLS with respect to the allocation of Channel 240A to Wickliffe and Henderson.

5. Sudbury Services, licensee of the station (KHLS) required to change its FM channel if Channel 240A is assigned to either or both Wickliffe and Henderson, also filed comments objecting to a Channel 240A allocation to either community. Sudbury submits that channels other than 240A, which would not require it to change channel, are available for assignment to these communities. In addition, Sudbury argues that a channel change would require the replacement of its antenna. It asserts that "a minor field tuning" would not return the antenna to its original total electrical characteristics. Sudbury estimates that it would cost $38,750 to replace the station's antenna, make required transmitter adjustments and promote the station's channel change. It is also contended that a change in dial position would result in a loss of listeners which would affect Sudbury's business.

6. Purchase questions the necessity for such an antenna replacement. It argues, instead, that the change in frequencies is so small (from Channel 241 to 242) that retuning of the antenna system can satisfactorily be made without removal from the supporting structure and should not cost more than $2,500. Further, it contends that recalibration of KHLS's monitor should cost about $250. With reference to KHLS's concern about losing listeners, Purchase argues that any modern FM radio with an automatic frequency control ("AFC") circuit will automatically "pull in" the KHLS signal, that other sets without AFC would require small retuning and there will be no loss of listeners because they will soon learn the new dial position.

7. In response to the above allegations, we note that the available information does not support Sudbury's contention that the retuning of the antenna would jeopardize its service coverage because it would alter the antenna electrical characteristics. It appears that the antenna system Sudbury employs is designed with tuning stubs so that the radiators can be fine-trimmed after installation and the wishbone feedarms can be adjusted to move the resonant frequency up or down one channel, as is the case here. Thus, Sudbury's estimate of reimbursement cost appears inflated. In regard to the alleged loss of listeners which is said to attend such a change in the dial location, we do not believe it is substantial enough to affect listening habits. In most instances, AFC would tune-in the station or a small retuning would correct any poor reception. In any event, such a temporary inconvenience is not a proper basis for rejecting a needed assignment.

8. As to channels other than 240A being available for allocation to the communities involved, Channel 252A, although available to the Wickliffe area, cannot be used as the Wickliffe assignment because it would have to be located about 15 kilometers from the community. As to Channel 292A's being assigned to Wickliffe, such an allocation would be dependent not only upon a denial of a petition to assign Channel 293 to Blytheville, Arkansas, in Rule Making 2762, but also upon changing the channel assignment at Portageville, Missouri, which would require further rule making procedures. With reference to Henderson, Channel 288A could be assigned there if the transmitter site were to be located some four miles southwest of the community. Because this possibility was not raised in a timely fashion, none of the parties had a chance to present their views regarding such an assignment.[3]

[1] Since Purchase has withdrawn its Mayfield proposal, the submission filed by West Kentucky Broadcasting Company, licensee of Stations WNGO(AM) and WXID(FM), Mayfield, Kentucky, opposing the assignment of Channel 240A to Mayfield has become moot.

[2] Submissions in response to the *Request for Supplemental Information* were also filed by Chester County Broadcasting, Inc. and Sudbury Services.

[3] A petition was filed on May 19, 1978, by Chester County Broadcasting Co., Inc., requesting the allocation of Channel 288A to Henderson, Tenn. Since this petition was submitted too late to be

Footnotes continued on next page

9. In view of the above facts and for the following reasons, we believe that the public interest will be served by assigning Channel 240A to both Wickliffe, Kentucky, and Henderson, Tennessee. Wickliffe, with a population of 1,211,[4] is the seat of Ballard County (pop. 8,276), in far western Kentucky. The community serves as a portal for access to a four state area. It is directly linked with the States of Illinois and Missouri. Tennessee lies approximately 40 miles south of Wickliffe. The city has experienced a 32.1 percent growth in population since 1960. Wickliffe's economic growth has been significant with several of the city's forty-five businesses recently being established, including a multi-million dollar paper mill. Ballard County retail sales totaled over 11.5 million dollars in 1972 and 17.5 million dollars in 1977. There is one high school and six elementary facilities in the county.

10. Henderson, with a population of 3,581, is the seat of Chester County (pop. 9,927), in southwest Tennessee, and is located 130 kilometers (80 miles) northeast of Memphis, Tennessee. The county's per capita income for 1974 was $3,329. The annual county income from agriculture is over 4 million dollars and in 1975, county retail sales were over 19 million dollars. There are new plants located in the Magic Valley Industrial Park, near Henderson, in Chester County, which will probably cause a significant population growth. There are several churches in Henderson, as well as many service and fraternal organizations. The county has one high school, a new vocational school, a new junior high school and three elementary facilities.

11. In view of the above information, we are persuaded that Wickliffe and Henderson are growing communities. Yet, Wickliffe has no local aural service and Henderson has only one daytime AM station (WHHM). These areas are in need of radio service. Further, a demand has been shown for use of the proposed frequency in both communities. Thus, the Commission believes it would be in the public interest to assign Channel 240A to Wickliffe and Henderson. We note that these allocations would be meeting a key Commission priority, which is, as far as possible, to provide each community with at least one FM broadcast station.[5] Allocating Channel 240A to Wickliffe also fulfills the Commission's policy of providing a choice of at least two FM services to as much of the population as possible in that the Wickliffe assignment would provide second FM service to East Prairie, Missouri, a community with a population of 3,275.

12. In making the Channel 240A assignment to Wickliffe, Kentucky, and Henderson, Tennessee, a change in the Blytheville, Arkansas, Channel 241 assignment to Channel 242 and in the operating frequency of Sudbury's Blytheville station (KHLS) from Channel 241 to Channel 242 is also required. Sudbury was ordered in the *Notice of Proposed Rule Making* in this proceeding to show cause why its license for Station KHLS should not be modified to specify this change in operating frequency should the proposal be adopted, with the understanding that it would receive reasonable reimbursement for the change. In respose to the *Notice* and order to show cause *Order*, Sudbury objected to the proposed assignment as discussed above and stated that it was not waiving its rights to a hearing on the proposed modification of its license.

13. As previously mentioned, both Usher and Purchase have indicated their intention to provide reasonable reimbursement to Sudbury with respect to a Channel 240A assignment to either or both Wickliffe and Henderson. It is Commission policy to call for reimbursement of the reasonable costs of a channel change in a station's frequency if required by a change in the FM Table of Assignments to be paid by the party or parties ultimately benefitting from the new or changed assignments thereby permitted.[6] Equitable considerations dictate generally, and here specifically, that such reimbursement be made. The appropriate costs making up the "reasonable" reimbursement figure are usually left to the good faith judgment of the parties eventually involved subject to Commission approval in the event of disagreement. We believe this is the desirable method in this situation as well.

14. Since Sudbury has made no showing that the public interest warrants a hearing on the modification of its license, no hearing shall be given. Instead, the modification shall take effect at the expiration of its current license term. This is in accordance with *Transcontinent Television Corp.* v. *F.C.C.*, 113 U.S. App. D.C. 384, 308 F. 2d 339 (1962), and our practice in similar circumstances in other FM assignment cases [7] making amendments to the FM Table of Assignments.

15. In view of the foregoing, IT IS ORDERED, That effective June 1, 1982, or earlier as indicated in the footnote below, pursuant to authority contained in Sections 4(i), 303 and 307(b) of the Communications Act of 1934, as amended, the FM Table of Assignments, Section 73.202(b) of the Rules IS AMENDED, insofar as the communities named are concerned, to read as follows:

| City | Channel No. |
|---|---|
| Blytheville, Arkansas | 242 [1] |
| Henderson, Tennessee | 240A [1] |
| Wickliffe, Kentucky | 240A [1] |

[1] Effective 3 a.m. local time, June 1, 1982 (concurrently with the expiration of the outstanding license for FM Station KHLS on Channel 241 at blytheville, Ark.), or such earlier date as FM Station KHLS MAY, UPON ITS REQUEST, cease operation on Channel 241 at Blytheville.

16. IT IS FURTHER ORDERED, That effective 3:00 a.m. local time, June 1, 1982, the date of expiration of the license for Station KHLS–FM on Channel 241 at Blytheville, Arkansas, or such earlier date as the Commission may authorize interim operation on Channel 242 at Blytheville, the license of FM Station KHLS is modified to specify operation on channel 242 and its application for license renewal for the term beginning June 1, 1982, shall specify operation on channel 242 instead of Channel 241. Station KHLS–FM may continue to operate on channel 241 until June 1, 1982, or it may obtain modification of its license to operate on Channel 242 prior to June 1, 1982, subject to the following conditions:

(a) The licensee shall inform the Commission in writing by no later than February 25, 1980, of its acceptance of this modification;

(b) At least 30 days before operation on Channel 242, the licensee of FM Station KHLS shall submit to the commission the technical information normally required of an applicant for a construction permit;

(c) At least 10 days prior to commencing operation on Channel 242, the licensee of FM Station KHLS shall submit the measurement data required of an applicant for an FM broadcast station license; and

(d) The licensee of FM Station KHLS shall not commence operation on

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Footnotes continued from last page considered as a counter-proposal in the instant proceeding, it will be acted upon in a later separate proceeding.

[4] All population figures are taken from the 1970 U.S. Census.

[5] The Commission's priorities in regard to FM assignments were listed in a *Further Notice of Proposed Rule Making* in the FM proceeding in docket No. 14185, FCC 62–867 (1962), as well as in *Anamosa and Iowa City, Iowa*, 46 F.C.C. 2d 520 (1974).

[6] See *Mitchell, South Dakota*, 62 F.C.C. 2d 70 (1976).

[7] See, for example, *Lake City and Kingstree, South Carolina*, 47 F.C.C. 2d 1067 (1974); and *Wisconsin Dells, Wisconsin*, 35 F.C.C. 2d 473 (1972).

Channel 242 without prior Commission authorization.

If FM Station KHLS requests and is granted authorization to operate on Channel 242 prior to termination of its present license authorization, the Commission will view such request as a relinquishment of Channel 241 and a waiver of any rights it may have with regard to that channel.

17. IT IS FURTHER ORDERED, That the request of Sudbury Services, Inc., for a hearing under Section 1.87 of the Commission's Rules and Regulations IS DENIED.

18. IT IS FURTHER ORDERED, That this proceeding IS TERMINATED.

(Secs. 4, 303, 307, 48 Stat., as amended, 1066, 1082, 1083; 47 U.S.C. 154, 303, 307.)

Federal Communications Commission.

Henry L. Baumann,

*Chief, Policy and Rules Division, Broadcast Bureau.*

[FR Doc. 80-1870 Filed 1-18-80; 8:45 am]

BILLING CODE 6712-01-M

## 47 CFR Part 73

[Docket No. 20966; RM-2719]

## Noncommercial Educational FM Assignment to Avalon, Calif.; Radio Broadcast Services

**AGENCY:** Federal Communications Commission.

**ACTION:** Report and Order.

**SUMMARY:** Action taken herein assigns noncommercial educational FM Channel 204A to Avalon, California, in response to a petition filed by the California State University, Long Beach, California. The channel could bring noncommercial educational FM broadcast service to Avalon.

**EFFECTIVE DATE:** February 25, 1980.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792.

**SUPPLEMENTARY INFORMATION:** Report and Order (Proceeding Terminated).

Adopted: January 10, 1980.

Released: January 16, 1980.

By the Chief, Policy and Rules Division.

1. The Commission has under consideration its *Notice of Proposed Rule Making*, 41 Fed. Reg. 47076, inviting comments on a proposal filed on behalf of the California State University, Long Beach, California ("petitioner"), which seeks the assignment of noncommercial educational Channel 204A to provide a Class A service to Avalon. Petitioner stated it will apply for the channel, if assigned. No oppositions to the proposal were received.

2. Avalon (pop. 1,520) [1] is located on Santa Catalina Island, in Los Angeles County (pop. 7,032,075) approximately 40 kilometers (25 miles) off the California coast.

3. Petitioner asserts that Avalon is the principal community on Santa Catalina Island and, although its permanent population is about 1,500, the population increases to over 3,500 during the summer tourist season. It notes that Santa Catalina Island is located within the Long Beach School District and is part of the prime service area for California State University, Long Beach. Petitioner contends that due to the Island's geographical separation from the mainland, residents of the Island are limited in their participation in the educational, cultural and public affairs of the school district. It states that the establishment of an educational broadcast facility would help alleviate this situation as well as provide a forum for problems unique to the residents of the Island.

4. The *Notice* indicated that the Avalon proposal was consistent with applicable criteria called for by the United States-Mexico FM Broadcast Agreement.[2] However, concurrence of the Mexican Government was required and has since been obtained.

5. The Commission believes that the public interest would be served by assigning Channel 204A to Avalon, California. An interest has been shown for the assignment which could bring a first noncommercial educational FM service to Avalon and Santa Catalina Island.

6. Authority for the action taken herein is contained in Sections 4(i), 5(d)(1), 303(g) and (r) and 307(b) of the Communications Act of 1934, as amended, and Section 0.281 of the Commission's Rules.

7. In view of the foregoing, IT IS ORDERED, That effective February 25, 1980, Section 73.504(a) of the Commission's Rules, the noncommercial educational FM Table of Assignments, IS AMENDED for the listed community to read as follows:

| City | Channel No. |
|---|---|
| Avalon, California | 204A |

8. IT IS FURTHER ORDERED, That this proceeding IS TERMINATED.

[1] Population figures are taken from the 1970 U.S. Census.

[2] The Agreement and the Commission's Rules implementing it apply to the area within 320 kilometers (199 miles) of the United States-Mexico border.

9. For further information concerning this proceeding, contact Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792.

(Secs. 4, 303, 307, 48 Stat. as amended, 1066, 1082, 1083; 47 U.S.C. 154, 303)

Federal Communications Commission.

Henry L. Baumann,

*Chief, Policy and Rules Division Broadcast Bureau.*

[FR Doc. 80-1879 Filed 1-18-80; 8:45 am]

BILLING CODE 6712-01-M

## 47 CFR Part 73

[Docket No. BC 79-90; RM-3142]

## TV Assignment to Orange Park, Fla.

**AGENCY:** Federal Communications Commission.

**ACTION:** Report and Order.

**SUMMARY:** Action taken herein assigns UHF television Channel 25 to Orange Park Florida, at the request of Clay Television, Inc. This assignment will enable Orange Park to have its first local television broadcast service.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**DATE:** Effective: February 25, 1980.

**FOR FURTHER INFORMATION CONTACT:** Ira H. Smart or Mark N. Lipp, Broadcast Bureau, (202) 632-9660 or (202) 632-7792.

**SUPPLEMENTARY INFORMATION:** *Report and order* (Proceeding Terminated).

Adopted: January 10, 1980.

Released: January 16, 1980.

By the Chief, Policy and Rules Division.

1. The Commission herein considers the *Notice of Proposed Rule Making*, adopted April 17, 1979, 44 FR 24589, which invited comments on a proposal to assign UHF television Channel 25 to Orange Park, Florida, in response to a petition filed by Clay Television, Inc. ("Clay"). Supporting comments were filed in letters from citizens of Clay County and from petitioner in which it reaffirmed its intention to file for the channel, if assigned. Oppositions were filed by TeLeVision 12 of Jacksonville, Inc. ("WTLV"), licensee of VHF-TV Station WTLV (Channel 12), Jacksonville, Florida, and the Crown Broadcasting Corporation ("Crown"), permittee to construct a new UHF television station on Channel 30 in Jacksonville. Petitioner and Crown filed reply comments.[1]

[1] Petitioner submitted a Motion to Strike Crown's reply comments alleging that the pleading was not served on it or on other parties despite the accompaniment of a "Certificate of Service." In addition, petitioner rebutted an assertion made in

Footnotes continued on next page

2. Orange Park (pop. 7,619),[2] in Clay County (pop. 32,059) is located in northeast Florida approximately 19 kilometers (12 miles) south of Jacksonville, Florida. The *Notice* proposed to assign Channel 25 in order to provide a first local commercial television service to Orange Park and Clay County. However, in view of the fact that service is received from one noncommercial educational and three commercial television stations in Jacksonville, Florida (which also has construction permits for two more commercial stations), a showing of need was requested for a local service to Orange Park and Clay County.

3. Petitioner argues in its comments that Orange Park and Clay County have a separate identity and distinct needs from Jacksonville. It cites newspaper readership in Clay County which shows a preference for a local county newspaper over the competing Jacksonville paper by 2½ to 1. It also cites greater growth rates in Clay County and Orange Park in contrast with Jacksonville where the population has declined since 1970. Although Orange Park abuts Jacksonville's city limits on the southwest, petitioner asserts that this area is relatively sparse in population and became a part of the city when the voters decided to annex all of Duval County. The employment and residential character of Clay County is said to differ by its predominantly rural nature. Petitioner cites the case of *Manassas, Va.* (Docket 20208), 40 FR 49339, 35 R.R. 2d 277 (1957), as a similar situation in which a small community overshadowed by the Washington, D.C. metropolitan area was assigned a television channel to provide an outlet for local needs. Petitioner notes that if it wished to operate a Jacksonville station, there are several UHF channels it could have requested for assignment there. Instead it chose Channel 25 which requires a site south of Orange Park (away from Jacksonville) to serve the residents of Clay County. Petitioner also cites several cases which are said to provide support to an assignment of a television channel to communities of less than 25,000 persons. Lastly, petitioner indicates that it proposes to make time available on its station for educational programming to be provided by the Clay County School Board and the St. Johns River Community College.

4. In opposition, WTLV and Crown contend that Orange Park and Clay County could not support a local television service since their economy is heavily dependent upon Jacksonville and Duval County. As a result, WTLV believes that an assignment to Orange Park will become a *de facto* assignment to Jacksonville. The opponents also contend that since there are now construction permits outstanding for UHF Channels 30 and 47 in Jacksonville which would also provide coverage to the Clay County area, the allocation of another UHF channel to Orange Park, a suburb of Jacksonville, is a waste of the scarce television spectrum. WTLV argues that employment has declined in Clay County and that most businesses are local outlets of national or regional chains whose advertising is placed by agencies outside Clay County. Local businesses are said to advertise on Jacksonville stations which provide Grade A coverage to 90% of Clay County. Crown has cited several cases, including *Baytown, Texas,* 11 F.C.C. 2d 941 (1968), and *Denton, Texas,* 10 F.C.C. 2d 1630 (1967), in which the Commission denied the assignment of a UHF television assignment to the suburban community because of the concern that it would depend too heavily on the larger community for advertising. WTLV asserts that the suburban station would eventually seek to identify with the larger central city in order to compete.

Crown raises questions about Clay's educational program proposal, arguing that not enough details are set forth to allow for adequate consideration of the proposal's desirability and no showing of need for educational service was shown. Separately, Crown has accused Clay of committing a serious breach of the Commission's *ex parte* rules in this proceeding by soliciting comments from concerned citizens. Clay insists that there was nothing improper in its efforts to have the Commission presented with the full facts of the case.

5. In reply comments, petitioner asserts that WTLV failed to address the central questions of Orange Park's needs and the extent to which Jacksonville stations serve these needs. It points to the numerous letters of Clay County residents which complain that the needs of their communities are ignored by Jacksonville stations. As to Orange Park's geographic location abounding Jacksonville, it notes that Jacksonville covers 761 square miles and insists that it would be more accurate to say that Orange Park merely abuts Jacksonville's greater metropolitan area. The competitive aspects which underlie WTLV's arguments should be raised in a petition to deny, according to petitioner. As for local businesses, petitioner asserts that Clay County is the location for over 200 retail establishments (as of 1970), and since then has seen the opening of a new mall with over 80 stores. Clay asserts that the proposed assignment is an efficient use of spectrum space because if Channel 25 is not assigned to Orange Park, it is unlikely that the channel will be used elsewhere in northern Florida.

6. We have carefully considered the record in this proceeding and conclude that it would be in the public interest to make the requested assignment so as to provide Orange Park, Florida, with an opportunity for its first local television service. Over the last decade, Clay County has grown more rapidly than Duval County (Jacksonville). Although Orange Park receives the signals of Jacksonville stations, it is also clear that they do not fully cover the separate needs of this fast growning suburban/rural area. Since Clay County is predominantly rural, coverage of the agricultural problems and needs in Clay County are of more importance to it than Jacksonville. This, too, enables us to conclude that there are distinct local television needs in Orange Park, and on that basis, that a local television outlet is warranted.

7. The arguments in opposition which characterize the assignment of Channel 25 to Orange Park as an eventual Jacksonville station are unpersuasive when the proposed location of the transmitter is considered. Because the Channel 25 transmitter site must be located at least 14.5 kilometers (9 miles) southwest of Orange Park, people in Jacksonville will receive an appreciably inferior signal from it than from existing and authorized Jacksonville UHF stations. It appears that the opposition comments are really concerned with the competitive impact of another station in the market, but that is not an issue we need to consider here. Any such issue can more adequately be resolved within the context of the application processing, and further consideration shall be deferred until that stage. Likewise, any issue in connection with the "educational programming" aspect of its application can more appropriately be considered at the application stage.

8. Lastly, we would like to point out that it is not a violation of the Commission's *ex parte* rules for a petitioner to solicit community residents to comment in support of its petition in the context of a rule making proceeding.

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Footnotes continued from last page
Crown's reply that the Commission's *ex parte* rule, Section 1.1225(a), was violated when it solicited area residents to file comments. We address this comment at para. 8, *infra.* As to the alleged failure of service of its comments, Crown responded by saying that it could only explain the non-receipt of its comments as a failure of the postal service. Clay accepted this explanation and withdrew its Motion to Strike to that extent.

[2] Population figures are taken from the 1970 U.S. Census.

On the contrary, community participation in our rule making proceedings is encouraged. The record provides no support for the view that Clay did anything more than urge others to participate in the rule making process *on the record.* The rule section cited by WTLV, Section 1.1225(a), provides essentially that if the person wishing to make a presentation would be prohibited from doing so, he may not solicit another person to do so. Here petitioner is not prohibited from submitting timely written comments in letter form or by formal pleading. Accordingly, petitioner may encourage others to similarly file. As to the failure of these letters to be served on all parties to the proceeding, Section 1.420(a) requires only that the petitioner be served with comments.

9. Accordingly, pursuant to authority contained in Sections 4(i), 5(d)(1), 303 (g) and (r) and 307(b) of the Communications Act of 1934, as amended, and Section 0.281 of the Commission's Rules, IT IS ORDERED, That effective February 25, 1980, the Television Table of Assignments (Section 73.606(b) of the Rules) IS AMENDED with respect to the community listed below:

| City | Channel No. |
|---|---|
| Orange Park, Florida | 25- |

10. IT IS FURTHER ORDERED, That this proceeding IS TERMINATED.

11. For further information concerning this proceeding, contact Ira H. Smart or Mark N. Lipp, Broadcast Bureau, (202) 632-9660 or (202) 632-7792.

(Secs. 4, 303, 307, 48 Stat., as amended, 1066, 1082, 1083; 47 U.S.C. 154, 303, 307.)

Federal Communications Commission,

Henry L. Baumann,

*Chief, Policy and Rules Division Broadcast Bureau.*

[FR Doc. 80-1880 Filed 1-18-80; 8:45 am]

BILLING CODE 6712-01-M

## INTERSTATE COMMERCE COMMISSION

### 49 CFR Part 1064

### [Ex Parte MC 95 (Sub-No. 2)]

## Practices of Motor Common Carriers of Passengers-Checked Baggage Liability Provisions

**AGENCY:** Interstate Commerce Commission.

**ACTION:** Reopening of Rulemaking; stay of effective date.

**SUMMARY:** The Commission's decision in this proceeding (served September 25, 1979), published at 44 FR 65987, November 16, 1979, adopted a final regulation requiring motor common carriers of passengers (buses) to provide excess value insurance coverage to passengers up to at least $2,000. The proceeding is being reopened for the limited purpose of receiving additional evidence on the amount of excess value insurance that should be required to be offered.

**DATES:** The January 1, 1980 effective date is stayed until further notice.

Additional comments by any interested party must be received on or before February 20, 1980. Replies must be received on or before March 11, 1980.

**ADDRESS:** Send comments to: Office of Proceedings, Room 5356, Interstate Commerce Commission, Washington, DC 20423.

**FOR FURTHER INFORMATION CONTACT:** Richard Felder, (202) 275-7693.

**SUPPLEMENTARY INFORMATION:** In a decision served September 25, 1979, the Commission adopted a final regulation which, among other things, required that motor common carriers of passengers (buses) make available to passengers excess value insurance coverage up to at least $2,000 (see 43 Fed. Reg, 44558). That regulation, amending the current regulation at 49 CFR 1064.1, was to become effective January 1, 1980.

On October 18, 1979, the National Bus Traffic Association ("NBTA") filed a petition for Administrative Review. In that petition, NBTA challenged the Commission's findings that the existing baggage excess value rule is ambiguous and that carriers of baggage are liable for full value or required to maintain varying levels of liability for loss and damage. NBTA also contended that the Notice of Proposed Rulemaking initiating the proceeding did not give notice that an actual level of excess value insurance would be required by the Commission and that the $2,000 figure adopted was not based on evidence of record.

NBTA requested that the existing rules be retained or that the record in this proceeding be reopened to receive evidence on the maximum amount of excess value insurance coverage which carriers must offer. Subsequently, in a letter-petition filed November 8, 1979, NBTA requested that it be allowed to supplement its petition with various data which might demonstrate that the $2,000 figure is excessive.

The Commission finds merit in NBTA's petition insofar as it challenges the basis for the $2,000 maximum liability figure established by the decision of September 25, 1979. It is therefore appropriate that the alternative relief requested by NBTA should be granted and that this proceeding should be reopened for the consideration of additional evidence on that issue.

The January 1, 1980 effective date of the regulation is postponed until further notice.

This decision does not significantly affect either the quality of the human environment or the conservation of energy.

Copies of this notice will be served on participants of record in this proceeding.

Notification to the general public will be provided by the mailing of a copy of this notice to the Governor of every State, to the public utilities Commissions or Boards of each State having jurisdiction over passenger bus transportation, by depositing a copy in the Office of the Secretary, Interstate Commerce Commission for public inspection, and by delivering a copy to the Director, Office of the Federal Register.

Decided: January 14, 1980.

Issued under the authority in 49 U.S.C. 101-119 and 5 U.S.C. 553.

By the Commission. Chairman O'Neal, Vice Chairman Stafford, Commissioners Gresham, Clapp, Christian, Trantum, Gaskins and Alexis.

Agatha L. Mergenovich,

*Secretary.*

[FR Doc. 80-1850 Filed 1-18-80; 8:45 am]

BILLING CODE 7035-01-M

# Proposed Rules

Federal Register
Vol. 45, No. 14
Monday, January 21, 1980

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## NUCLEAR REGULATORY COMMISSION

### 10 CFR Part 50

### Emergency Planning: Draft Negative Declaration For Proposed Rule Changes

**AGENCY:** U.S. Nuclear Regulatory Commission.

**ACTION:** Draft Negative Declaration; Finding of No Significant Impact.

**SUMMARY:** On December 19, 1979, the Nuclear Regulatory Commission published proposed changes to 10 CFR Part 50, §§ 50.33, 50.47, 50.54 and Appendix E, which deal with emergency planning requirements for nuclear power plants. (44 FR 75167, December 19, 1979). An environmental assessment has been prepared for the proposed rule changes (See Supplemental Information). A preliminary determination based on this assessment has been made by the Director, Office of Standards Development, that an environmental impact statement need not be prepared for the proposed rule changes.

The environmental assessment deals with the Commission's decision to upgrade emergency planning provisions and to make adequate emergency planning a condition for license issuance and continuance of operation for nuclear power plants. The proposed rule changes would preclude license issuance or continuation of plant operation unless the NRC concurred in the emergency plans of appropriate State and local governments for the nuclear power plant in question.

The impacts of the proposed rule are assessed with available information. Both the costs of compliance (preparation of emergency plans and demonstration of preparedness to implement the plans) and the costs of failure to comply (shut down of individual plants on a case-by-case basis and substitution of other forms of power generation) were considered. The draft assessment indicates that the expected impacts on the human environment of the proposed rule changes are not significant.

**DATES:** Comments should be submitted on or before February 18, 1980.

**ADDRESSES:** Interested persons are invited to submit written comments and suggestions on the proposed "Draft Negative Declaration; Finding of No Significant Impact" to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch. Copies of the proposed rule changes, value/impact analysis, comments received by the Commission on the rule changes, negative declaration and environmental assessment and comments received by the Commission on the negative declaration and environmental assessment may be examined in the Commission's Public Document Room at 1717 H Street, NW., Washington, D.C. and at local Public Document Rooms. Single copies of this Draft Negative Declaration and Environmental Assessment may be obtained on request.

**FOR FURTHER INFORMATION CONTACT:** Dr. William R. Ott, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 Telephone: (301) 443-5966.

**SUPPLEMENTARY INFORMATION:** The following is a Draft Environmental Assessment for the proposed changes to 10 CFR Part 50, §§ 50.33, 50.47, and 50.54, and Appendix E.

### Introduction

The Commission recently published in the Federal Register proposed amendments to 10 CFR Part 50, Sections 50.33, 50.47 and 50.54 and Appendix E (44 FR 75167, December 19, 1979). Since these amendments to the regulations governing the licensing of production and utilization facilities are substantive and may have a significant impact on the human environment, the Commission has directed that an environmental assessment should be prepared to determine whether an environmental impact statement be developed for the rule changes. The discussion which follows has been developed to satisfy the Commission's directive.

### Need for the Proposed Amendments; Rejection of the No Action Alternative

Present regulations concerning emergency planning require the applicant for a nuclear power plant operating license to be prepared to take protective measures within the site boundary in the event of an accident. The applicant is also required to develop plans which among other things incorporate agreements and arrangements for the taking of protective measures by State and local government authorities when the consequence of an accident might extend beyond the site boundary. Offsite participation of State and local authorities is on a voluntary basis.

Several recent studies [1, 2, 3, 4, 5] have criticized the state of preparedness for radiological emergencies in the vicinity of operating nuclear power plant. The events which occurred at Three Mile Island confirmed some of the criticisms contained in these reports. Due to the accident at Three Mile Island, the various reports, and its own assessment of the health and safety significance of emergency planning, the Commission saw a need to act to upgrade those portions of its regulations concerning emergency planning and preparedness. This decision to upgrade the regulations is a rejection of the alternatives of taking no action or of taking more drastic action which could have an immediate, detrimental impact on the nation's energy supply (i.e., immediate shut down).

In order to rectify shortcomings in emergency preparedness the Commission decided that it was necessary to develop proposed rule changes to the emergency planning requirements in 10 CFR Part 50.

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[1] *EPA/NRC Task Force Report*—"Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants" (NUREG-0396, December 1978)

[2] *GAO Report*—"Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies (EMD-78-110, March 30, 1979)

[3] *"Report of the Siting Policy Task Force"*—(NUREG-0625, August 1979)

[4] *Senate Bill S. 562*—Involves concurrence and adequacy of State and Local Emergency Plans. (See Congressional Record—Senate, Vol. 125, No. 95, July 16, 1979, pages S9461-S9506.)

[5] *Congressional Report*—"Emergency Planning Around U.S. Nuclear Power Plants: Nuclear Regulatory Commission Oversight" (House Report 96-413, August 8, 1979).

### The Proposed Action

In its deliberations leading to issuance of the proposed Amendments, the Commission determined that emergency planning should not only be upgraded but that adequate emergency planning should be made a condition of license issuance and of continuation of operation. The proposed changes will make issuance of an operating license for and the continuation of operation of a nuclear power plant dependent on NRC concurrence in State and local governmental emergency plans. The proposed changes will also introduce into the regulations the use of "Emergency Planning Zones" (EPZs) as the area within which local and State authorities must have plans which have received NRC concurrence.[6] The proposed rule includes special consideration of those plants already licensed for operation. The content of the proposed rule is constrained by the need for prompt action and the determination that it is appropriate to allow a reasonable time for licensees to come into compliance. The proposed rule identifies January 1, 1981, or 180 days after publication of the final rule, whichever comes sooner, as the reasonable time period to allow plants now in operation to come into compliance.

The licensability requirement is stated as a requirement for NRC concurrence in State and local emergency response plans or a determination by the Commission that (1) the deficiencies in the plans are not significant for the plant in question, (2) alternative compensating actions have been or will be taken promptly, or (3) that there are other compelling reasons for continued operation. Two alternatives are presented for the way in which nonconcurrence could be handled. Under the first alternative, the Commission, after determining nonconcurrence, must decide whether the plant in question should be shut down or allowed to continue to operate. Under the second alternative, nonconcurrence after the date specified in the final rule would result in immediate shut down. In the absence of any Commission action, nonconcurrence under the second alternative would result in immediate impact from use of alternative power generation sources. However, the notice of proposed nonconcurrence will come with sufficient warning in either case to allow an applicant or licensee to seek relief under the criteria listed above. Therefore, for the purpose of this environmental assessment, these two alternatives do not differ materially.

The requirements for concurrence apply only to proposed emergency plans for governmental entities wholly or partially within the Emergency Planning Zones. State and local authorities have, in common with the NRC, the responsibility to protect public health and safety. To that end the Commission is seeking the active cooperation of State and local governments in the development and implementation of upgraded plans for the protection of the public health and safety.

### Impact of the Proposed Action

The proposed rule changes state that where nonconcurrence persists, when the deficiencies in the plan are significant for the plant in question, when compensating actions have not or will not be taken, and when there are no other compelling reasons for license issuance or continued operation, a new plant will not be allowed be begin operating or an operating plant will be required to shut down. While this is not a requirement on State and local governments, the States are concerned with meeting the energy need of their residents. In the opinion of the NRC staff, in order to meet this need as well as that of protecting public health and safety, it is likely that the States will cooperate to assure the continued safe operation or timely commencement of safe operation of nuclear generation capability within their jurisdiction. The NRC's Office of State Programs recently published a staff study entitled "Beyond Defense in Depth: Cost and Funding of State and Local Government Radiological Emergency Response Plans and Preparedness in Support of Commercial Nuclear Power Stations," NUREG-0553, October 1979.[7] This study sampled emergency plans and preparedness in several States which had been developed under existing regulations, some of which had NRC concurrence. The study identified a range of costs per plant to State and local governments which the data indicate depends largely on the relative differences in population distribution and radiological transport characteristics of the plant locations. Some important considerations that were found to affect cost include: exercises, communications, radiation monitoring, warning systems, emergency planning zones and local technical directors.

Typical costs for State and local government programs to achieve concurrence in radiological emergency response plans for a ten mile Emergency Planning Zone are presented in Table 1. For a State, the initial costs of planning, exercises, training and resources (communications and radiation monitoring instrumentation) typically total about $240,000, with associated annual updating costs of about $444,000. For local governments, the initial costs typically total about $120,000 (four jurisdictions) with annual updating costs of about $30,000. Thus the typical total costs to State and local governments to achieve NRC concurrence in their emergency response plans would be about $360,000 initial cost, plus $74,000 in annual updating costs.

For sites in areas of high population density, additional costs may be associated with such items as dynamic evacuation analyses and shelter surveys, and communications and warning systems. Areas experiencing high population growth rates may also experience additional costs. A likely cost to achieve NRC concurrence in radiological emergency response plans for a typical nuclear power plant is therefore around $400,000 and is unlikely to exceed $1,000,000 for sites with the highest population densities.

**Table 1.**—*Typical Costs to State and Local Governments To Develop Emergency Response Programs Within a 10-mile Emergency Planning Zone.*[1] *(State With One Plant)*

| | Four jurisdictions | | |
|---|---|---|---|
| | State | Local | Total |
| Plan: | | | |
| Initial | $100,000 | [2]$40,000 | $140,000 |
| Update | [3] 10,000 | [3]4,000 | 14,000 |
| Preparedness: | | | |
| Exercises | [3]20,000 | [3]20,000 | [3]40,000 |
| Training: | | | |
| Initial | 20,000 | None | 20,000 |
| Update | [3]4,000 | None | [3]4,000 |
| Resources: | | | |
| Initial | $100,000 | [4]60,000 | 160,000 |
| Update | [3]10,000 | [3]6,000 | [3]16,000 |
| Total: | | | |
| Initial | 240,000 | 120,000 | 360,000 |
| Update | [3]44,000 | [3]30,000 | [3]74,000 |

[1] Information taken from NUREG—0533, "Beyond Defense-In-Depth," October 1979.
[2] $10,000 per year.
[3] Per year.
[4] Communications.

These costs of implementation may be compared to other costs incurred in the construction of a typical 1000 MWe nuclear power plant or to the tax and

[6] Emergency Planning Zones (EPZs) are discussed in the EPA/NRC Task Force Report (see footnote 1). In most cases they will be a circle of radius about ten miles for the plume inhalation exposure pathway and about fifty miles for the ingestion exposure pathway. The exact size and configuration of the EPZs surrounding a particular nuclear power reactor shall be determined in relation to the emergency response needs and capabilities as they are affected by such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries.

[7] This document had been issued by the NRC's staff and is used here only as a source for technical data on costs.

fee burden usual for such an installation. The capital investment in plant and equipment is on the order of $1 billion at the present time and the State and local tax and fee structure, although quite variable, amounts to an average of about two and one-half percent of that capital investment per year or about $25 million per year for a $1 billion investment.[8] A particular exception would be publicly owned utilities such as TVA which make payments to State and local governments in lieu of taxes and also have a much lower rate structure. When compared to these investment and tax burden figures, even for the case of publicly owned utilities, the costs of implementation of the requirement for NRC concurrence in State and local emergency plans within the EPZ do not seem unreasonable.

Another potential major impact is that associated with shutting down those plants for which NRC does not concur or withdraws concurrence in the State and local governmental radiological emergency response plans. An estimate for these costs is presented in the Appendix for plants which are forecast to be in operation in 1981. The estimate is based on the cost of replacement power for one month, taking into consideration the fuel mix associated with the replacement power for the State in which each plant is located. For a typical 1000 MWe power plant, these costs range from $1.3 million/month for replacement by all coal fired capacity (Prairie Island) to $20.6 million/month for replacement by all oil fired capacity (San Onofre).

While the variation in replacement power cost is significant, even those plants with low replacement power costs will exceed the projected costs for implementation of adequate emergency plans if a shutdown lasts beyond a month.

Also associated with replacement power generated by coal or oil burning power plants will be the health effects attributable to gaseous and particulate emissions from those power plants. While it is difficult to quantify these health effects due to variability in fuel composition, the variation in efficiency and pollution control equipment of the older units usually pressed into service for replacement power, and the lack of accurate epidemiological and other data connecting these emissions with health effects, there are definite indications that these emissions could have a significantly greater impact on public health than the emissions of the nuclear power plants which they would be replacing.[9] [10] It should be said, however, that the health effects from the coal or oil units represent a very small incremental risk to the average individual in the public. Thus, even if extended periods of shutdown occurred, the impact would be small in an absolute sense. But the proposed rule allows a reasonble opportunity to achieve compliance and the health impacts of these rule changes should therefore be insignificant.

It should be noted that the time periods and deadlines quoted in the proposed rule, i.e., 180 days after publication of the final rule or January 1, 1981, whichever comes sooner, have been chosen to allow reasonable time to achieve compliance or justify exemption. As a result the Commission anticipates that shut downs will be few and of short duration.

## Summary

The Commission has decided that a need exists for a change in the rules governing consideration of emergency planning in the licensing of nuclear power plants. The changes proposed in 44 FR 75167 (December 19, 1979) and described here meet the requirements for the upgrading of emergency planning with respect to siting and design features as determinants of license issuance or continuation. The impacts of compliance are within a reasonable range when compared to capital investment costs and the State and local tax and fee burdens associated with the construction and operation of nuclear power plants. It is expected that nuclear power plant shut downs under this rule will be infrequent and of short duration and that the impacts on the human environment of the proposed rule will be insignificant. It is therefore unnecessary to prepare an environmental impact statement for the proposed rule changes.

[8] *"Coal and Nuclear: A Comparison of the Cost of Generating Baseload Electricity by Region"*—(NUREG-0480, December 1978).

[9] "Health Evaulation of Energy Generating Sources," AMA Council on Scientific Affair, Journal of the America Medical Association, November 10, 1978, Vol. 240, No. 20, 2193.

[10] *"Health Effects Attributable to Coal and Nuclear Fuel Cycle Alternatives"*—(NUREG-0332, September 1977).

## Appendix—Replacement Power Costs of Shutting Down Operating Nuclear Power Plants, 1981

If a nuclear plant is ordered shut down, the power which would have been generated by the plant will be generated by another plant, if capacity is available. A cost estimate was prepared and is shown in the accompanying Table for replacement power for one month. The list of operating plants for 1981 was taken from the forecast in NUREG-0380 Oct. 19, 1979, excluding Indian Point 1 and TMI #2. It was assumed that each utility would replace the power with coal and oil fired capacity in the ratio which the state where the plant is located currently uses these fuels for steam-electric plants. It was assumed that no replacement hydro-generating capacity would be available because it would already be fully used. In addition, the availability of hydro is highly weather dependent. Supplies of coal and oil, particularly oil, are highly uncertain looking ahead to 1981, thus these fuel mixes may be altered considerably. Likewise, coal supplies could be changed substantially by strikes and severe weather.

Coal and oil costs were based on January 1979 prices from DOE. Coal costs for 1981 were increased by 15%. Oil costs (residual) were doubled over January 1979 prices. This estimate is conservative since the present price (January 1980) has already exceeded twice the January 1979 price. Neither of these assumptions are likely to be near the prices actually prevailing in 1981. Oil prices in particular are highly uncertain. It does seem reasonable however, to assume that oil prices in January 1981 will be no lower than current levels. Also, if oil prices continue rising, past experience indicates that coal prices will follow.

The weighted cost of fuel for each plant was adjusted downward by 6 mills/kWh which is the approximate savings of nuclear fuel costs by not operating the nuclear plant. No adjustment for non-fuel operating and maintenance costs was made, although average O&M costs for nuclear plants are lower than those for fossil fuel plants, especially those which would be brought into operation to replace the nuclear capacity.

It was assumed that the nuclear plants operate at an annual average 65 percent capacity factor. This will likely be higher in the early months of 1981 as utilities will be experiencing their winter peak demand for electricity. The average capacity factor will likely be lower in the spring when nuclear plants are typically shut down for refueling. The above patterns will be repeated for the summer and fall.

Given these uncertainties, especially in fuel prices, the monthly replacement costs shown in the Table should be taken only as indicators. What is clearly shown is that oil dependent areas are quite vulnerable to substantial cost increases. These are California, the entire Northeast Power Coordinating Council plus New Jersey, Florida, and Arkansas.

Dated at Bethesda, Maryland, this eleventh day of January 1980.

For the Nuclear Regulatory Commission.

**Robert B. Minogue,**

*Director, Office of Standards Development, U.S. Nuclear Regulatory Commission.*

**Short Term Replacement Power Costs for Nuclear Utilities**

| Reliability council—plant | MWe (DER)[1] | Ratio of coal to oil use | | Fuel cost,[3] cents per $10^6$ Btu | | Weighted[4] average fuel cost, mils per kWh | Net fuel costs,[5] mils per kWh | Replacement power costs, dollars $1 \times 10^6$ per month[6] |
|---|---|---|---|---|---|---|---|---|
| | | Coal | Oil | Coal | Oil | | | |
| MPCC: | | | | | | | | |
| N.Y.—Fitzpatrick | 821 | 1 | 4 | 134 | 218 | 35.7 | 29.7 | 11.6 |
| N.Y.—Ginna | 470 | 1 | 4 | 134 | 218 | 35.7 | 29.7 | 6.6 |
| Conn.—Haddam Neck | 575 | — | Oil | — | 245 | 46.1 | 40.1 | 11.0 |
| N.Y.—Indian Point 2 | 873 | 1 | 4 | 134 | 218 | 35.7 | 29.7 | 12.3 |
| N.Y.—Indian Point 3 | 965 | 1 | 4 | 134 | 218 | 35.7 | 29.7 | 13.6 |
| Maine—Maine Yankee | 825 | — | Oil | — | 182 | 34.2 | 28.2 | 11.0 |
| Conn.—Millstone 1 | 660 | — | Oil | — | 245 | 46.1 | 40.1 | 12.6 |
| Conn.—Millstone 2 | 870 | — | Oil | — | 245 | 46.1 | 40.1 | 16.6 |
| N.Y.—Nine Mile Point 1 | 620 | 1 | 4 | 134 | 218 | 35.7 | 29.7 | 8.7 |
| Mass.—Pilgrim 1 | 655 | — | Oil | — | 201 | 37.8 | 31.8 | 9.9 |
| Vt.—Vermont Yankee 1 | 514 | — | Oil | — | 201 | 37.8 | 31.8 | 7.8 |
| Mass.—Yankee-Rowe | 175 | — | Oil | — | 201 | 37.8 | 31.8 | 2.6 |
| N.Y.—Shoreham | 854 | 1 | 4 | 134 | 218 | 35.7 | 24.7 | 12.0 |
| SERC: | | | | | | | | |
| Ala.—Browns Ferry 1 | 1,065 | Coal | — | 146 | — | 15.8 | 9.8 | 5.0 |
| Ala.—Browns Ferry 2 | 1,065 | Coal | — | 146 | — | 15.8 | 9.8 | 5.0 |
| Ala.—Browns Ferry 3 | 1,065 | Coal | — | 146 | — | 15.8 | 9.8 | 5.0 |
| N.C.—Brunswick 1A | 821 | Coal | — | 143 | — | 15.5 | 9.5 | 3.7 |
| N.C.—Brunswick 2A | 821 | Coal | — | 143 | — | 15.5 | 9.5 | 3.7 |
| Fla.—Crystal River 3 | 825 | 1 | 3 | 132 | 336 | 50.9 | 44.9 | 17.6 |
| Ala.—Farley 1 | 829 | Coal | — | 146 | — | 15.8 | 9.8 | 3.9 |
| Ga.—Hatch 1 | 786 | Coal | — | 132 | — | 14.3 | 8.3 | 3.1 |
| Ga.—Hatch 2 | 786 | Coal | — | 132 | — | 14.3 | 8.3 | 3.1 |
| Va.—North Anna 1 | 907 | 2 | 3 | 161 | 203 | 29.9 | 23.9 | 10.3 |
| S.C.—Oconee 1 | 887 | 4 | 1 | 147 | 186 | 19.7 | 13.7 | 5.8 |
| S.C.—Oconee 2 | 887 | 4 | 1 | 147 | 186 | 19.7 | 13.7 | 5.8 |
| S.C.—Oconee 3 | 887 | 4 | 1 | 147 | 186 | 19.7 | 13.7 | 5.8 |
| S.C.—Robinson 2 | 700 | 4 | 1 | 147 | 186 | 19.7 | 13.7 | 4.6 |
| Fla.—St. Lucie 1 | 802 | 1 | 3 | 132 | 336 | 50.9 | 44.9 | 17.1 |
| Va.—Surry 1 | 822 | 2 | 3 | 161 | 203 | 29.9 | 23.9 | 9.3 |
| Va.—Surry 2 | 822 | 2 | 3 | 161 | 203 | 29.9 | 23.9 | 9.3 |
| Fla.—Turkey Point 3 | 693 | 1 | 3 | 132 | 336 | 50.9 | 44.9 | 14.8 |
| Fla.—Turkey Point 4 | 693 | 1 | 3 | 132 | 336 | 50.9 | 44.9 | 14.8 |
| Ala.—Farley 2 | 829 | Coal | — | 146 | — | 15.8 | 9.8 | 3.9 |
| N.C.—McGuire 1 | 1,180 | Coal | — | 143 | — | 15.5 | 9.5 | 5.3 |
| Tenn.—Sequoyah 1 | 1,140 | Coal | — | 147 | — | 15.8 | 9.8 | 5.3 |
| Va.—North Anna 2 | 907 | 2 | 3 | 161 | 203 | 29.9 | 23.9 | 10.3 |
| S.C.—Summer 1 | 900 | 4 | 1 | 147 | 186 | 19.7 | 13.7 | 5.9 |
| ECAR: | | | | | | | | |
| Pa.—Beaver Valley[2] | 852 | Coal | — | 137 | — | 14.9 | 8.9 | 3.6 |
| Mich.—Big Rock Point | 72 | 4 | 1 | 130 | 258 | 20.9 | 14.9 | .5 |
| Mich.—Cook 1 | 1,054 | 4 | 1 | 130 | 258 | 20.9 | 14.9 | 7.5 |
| Mich.—Cook 2 | 1,100 | 4 | 1 | 130 | 258 | 20.9 | 14.9 | 7.8 |
| Ohio—Davis-Besse 1 | 906 | Coal | — | 137 | — | 14.9 | 8.9 | 3.6 |
| Mich.—Palisades | 805 | 4 | 1 | 130 | 258 | 20.9 | 14.9 | 5.7 |
| MAAC: | | | | | | | | |
| Md.—Calvert Cliffs 1 | 845 | 1 | 1 | 150 | 225 | 29.3 | 23.2 | 9.3 |
| Md.—Calvert Cliffs 2 | 845 | 1 | 1 | 150 | 225 | 29.3 | 23.3 | 9.3 |
| N.J.—Oyster Creek | 650 | 1 | 3 | 163 | 255 | 40.4 | 34.4 | 10.6 |
| Pa.—Peach Bottom 2 | 1,065 | 5 | 1 | 118 | 247 | 18.4 | 12.4 | 6.3 |
| Pa.—Peach Bottom 3 | 1,065 | 5 | 1 | 118 | 247 | 18.4 | 12.4 | 6.3 |
| N.J.—Salem 1 | 1,090 | 1 | 3 | 163 | 255 | 40.4 | 34.4 | 17.8 |
| Pa.—Three Mile Island 1 | 819 | 5 | 1 | 118 | 247 | 18.4 | 12.4 | 4.8 |
| Pa.—Susquehanna 1 | 1,052 | 5 | 1 | 118 | 247 | 18.4 | 12.4 | 6.2 |
| N.J.—Salem 2 | 1,115 | 1 | 5 | 163 | 255 | 40.4 | 34.4 | 19.2 |
| MAIN: | | | | | | | | |
| Ill.—Dresden 1 | 200 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 1.2 |
| Ill.—Dresden 2 | 794 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 4.9 |
| Ill.—Dresden 3 | 794 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 4.9 |
| Wis.—Kewaunee1.5 | 535 | Coal | — | 111 | — | 12.0 | 6.0 | 1.5 |
| Wis.—Point Beach 1 | 497 | Coal | — | 111 | — | 12.0 | 6.0 | 1.4 |
| Wis.—Point Beach 2 | 497 | Coal | — | 111 | — | 12.0 | 6.0 | 1.4 |
| Ill.—Quad Cities 1 | 789 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 4.8 |
| Ill.—Quad cities 2 | 789 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 4.8 |
| Ill.—Zion 1 | 1,040 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 6.4 |
| Ill.—Zion 2 | 1,040 | 8 | 1 | 124 | 335 | 18.9 | 12.9 | 6.4 |
| MARCA: | | | | | | | | |
| Nebr.—Cooper Station | 778 | Coal | — | 100 | — | 10.8 | 4.8 | 1.8 |
| Iowa—Duane Arnold | 538 | Coal | — | 109 | — | 11.8 | 5.8 | 1.5 |
| Nebr.—Fort Calhoun | 457 | Coal | — | 100 | — | 10.8 | 4.8 | 1.0 |
| Wis.—LaCrosse | 50 | Coal | — | 111 | — | 12.0 | 6.0 | .1 |
| Minn.—Monticello | 545 | Coal | — | 80 | — | 8.6 | 2.6 | .7 |
| Minn.—Prairie Island 1 | 530 | Coal | — | 80 | — | 8.6 | 2.6 | .7 |
| Minn.—Prairie Island 2 | 530 | Coal | — | 80 | — | 8.6 | 2.6 | .7 |
| SWPP: | | | | | | | | |
| Ark.—Arkansas 1 | 850 | 1 | 5 | 112 | 202 | 33.7 | 27.7 | 11.1 |
| Ark.—Arkansas 2 | 912 | 1 | 5 | 112 | 202 | 33.7 | 27.7 | 12.0 |

Short Term Replacement Power Costs for Nuclear Utilities—Continued

| Reliability council—plant | MWe (DER)* | Ratio of coal to oil use | | Fuel cost,[2] cents per $10^6$ Btu | | Weighted[4] average fuel cost, mils per kWh | Net fuel costs,[5] mills per kWh | Replacement power costs, dollars $1 \times 10^6$ per month[6] |
|---|---|---|---|---|---|---|---|---|
| | | Coal | Oil | Coal | Oil | | | |
| WSSC: | | | | | | | | |
| Colo.—Fort St. Vrain | 330 | Coal | — | 69 | — | 7.5 | 1.5 | .2 |
| Calif.—Humboldt Bay | 65 | — | Oil | — | 263 | 49.4 | 43.4 | 1.3 |
| Calif.—Rancho Seco | 918 | — | Oil | — | 263 | 49.4 | 43.4 | 18.9 |
| Calif.—San Onofre 1 | 436 | — | Oil | — | 263 | 49.4 | 43.4 | 9.0 |
| Oreg.—Trojan[1] | 1,130 | — | Oil | — | 263 | 49.4 | 43.4 | 23.3 |
| Calif.—Diablo Canyon 1 | 1,084 | — | Oil | — | 263 | 49.4 | 43.4 | 22.5 |
| Calif.—San Onofre 2 | 1,140 | — | Oil | — | 263 | 49.5 | 43.4 | 23.5 |

[1] Assumed 100% oil because intertied with all oil utilities.
[2] Used Ohio fuel and prices as plant is in ECAR.
[3] From U.S. DOE/EIA-0075/1-(79), Monthly Report, Cost and Quality of Fuels for Electric Utility Plants, Data for January 1979, Tables 2 and 5.
[4] Prices escalated to January 1981, coal increased by 15%, fuel doubled from January 1979, net plant heat rate 9,400 Btu/kWh.
[5] Fossil fuel prices less nuclear fuel price of 6 mills/kWh.
[6] 65% plant capacity factor.
* Design Electrical Rating.

[FR Doc. 80-1705 Filed 1-18-80; 8:45 am]
BILLING CODE 7590-01-M

## SMALL BUSINESS ADMINISTRATION

## 13 CFR Part 107

## Maximum Annual Cost of Money to Small Concerns

**AGENCY:** Small Business Administration.

**ACTION:** Proposed rule.

**SUMMARY:** This proposed rule would eliminate the present 15 percent ceiling imposed by SBA on the cost of Small Business Investment Company (SBIC) debt financings to Small Concerns, and substitute a ceiling that rises and falls with a certain rate charge by the Federal Financing Bank (FFB). However, this regulation does not supersede or preempt any local law that may fix an interest ceiling below the level authorized by this regulation.

**DATE:** Comments must be received on or before February 20, 1980.

**ADDRESS:** Written comments, in duplicate, are to be addressed to the Director, Office of the Investment Division, Small Business Administration, 1441 L Street, NW., Washington, DC 20416.

**FURTHER INFORMATION CONTACT:** Patsy Wilkinson, Office of Investment, Small Business Administration, 1441 L Street, NW., Washington, DC 20416, 202-653-6790.

**SUPPLEMENTARY INFORMATION:** Section 107.301(c) of Part 107 of the SBA Regulations provides that, subject to any applicable local law prescribing a lower limit, the maximum annual cost of money to a Small Concern may not exceed 15 percent. Analysis of the history of the SBIC industry shows that an SBIC Licensee cannot break even unless it is able to obtain interest income at a rate that is 6 to 7 percentage points higher than the interest it pays for borrowed money.

Almost all the funds borrowed by SBICs licensed under section 301(c) of the Small Business Investment Act (Act) come from the FFB, and as older debentures mature, the FFB will, with few exceptions, become the sole source of leverage for section 301(c) Licensees. Sec. 301(d) Licensees sell their debentures to the Small Business Administration at an interest rate that is, for the first five years of the debenture's term, three percentage points below a rate determined by the Secretary of the Treasury taking into consideration the current average market yield on outstanding marketable obligations of the United States. Although the rates charged by the FFB are lower than the commercial prime rate, FFB rates rise and fall as commercial interest rates rise and fall. Interest rates, including interest rates established by the FFB, are at their all-time highs. In December 1979, the annual rate of interest on Licensee debentures with a ten-year maturity (which is the maturity option most commonly chosen by Licensees) was 10.595 percent. For any Licensee whose cost of money approaches that level, the margin between its own cost of money and the maximum cost that may be lawfully imposed upon a portfolio Small Concern is inadequate.

SBA therefore proposes to allow all Licensees to charge interest at a rate not in excess of a variable ceiling based on the interest rate fixed by the FFB for 10-year debentures at its monthly purchase of SBIC debentures. If the FFB rate on such debentures were 8 percent, or lower, the maximum cost of money allowable on any debt financing made while such rate was in effect would be 15 percent per annum. If the FFB rate on such debentures were greater than 8 percent, the maximum allowable cost of money to the Small Concern on any debt financing made while such rate was in effect would be equal to the FFB rate plus 7 percentage points, rounded off to the next lower one-eigth of a point. SBA would publish a notice of the FFB rate in effect.

SBA is aware that its proposed formula would allow a spread in excess of 7 percentage points for SBICs that obtained leverage while lower rates were in effect, and for sec. 301(d) SBICs that had obtained leverage by the sale of debentures enjoying a subsidized interest rate or by the sale of Preferred Stock to SBA, or by a combination of both sources of leverage. However, promulgation of an interest ceiling based on the cost of leverage of each individual SBIC would impose upon them, and upon SBA in its capacity as the regulator of the industry, an administrative burden out of proportion to any transitory benefit that might be realized by prospective borrowers. Even under the present 15 percent ceiling, the actual median rate charged by the SBIC industry has never reached the maximum approved rate. The median rate for September 1979 SBIC financings was 13.3 percent, with only about 42 percent of the business being between 14 percent and 15 percent.

While this proposed rule permits a higher annual cost of money to small concerns, it would make no change with respect to discounts and other fees and charges that must be included in the cost of money.

Accordingly, pursuant to the authority of section 308 of the Small Business Investment Act, as amended, 15 U.S.C. 687, it is proposed to amend Part 107 of

Chapter I, Title 13 of the Code of Federal Regulations by revising paragraph (c) to read as follows:

**§ 107.301 General.**

* * * * *

(c) *Maximum annual cost of money.* Subject to lower rates prescribed by local law, the maximum annual cost for Financing based on the average amount outstanding shall not exceed a rate computed according to one of the following formulas:

(1) If the current interest rate for 10-year debentures sold by Licensees to the Federal Financing Bank (FFB) is 8 percent per annum, or lower, the maximum cost of money for any such Financing made during the period that such rate is in effect shall not exceed 15 percent per annum; or

(2) If the current interest rate for 10-year debentures sold by Licensees to the FFB is in excess of 8 percent, the maximum cost of money for any such Financing made during the period that such rate is in effect shall not exceed a rate equal to the sum of the FFB rate plus 7 percentage points, but rounded off to the next lower eighth of one percent. Cost shall include all interest, discount, and all fees, commissions, and similar charges imposed, directly, or indirectly, by the Licensee on the Small Concern; only charges for Management Services pursuant to § 107.601 and charges pursuant to § 107.1004(d) shall not be included.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies.)

Dated: January 10, 1980.

A. Vernon Weaver,

*Administrator.*

[FR Doc. 80-1642 Filed 1-18-80; 8:45 am]

BILLING CODE 8025-01-M

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 71

**[Airspace Docket No. 79-ANW-6]**

## Proposed Alteration of Transition Area

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** This notice proposes to alter the McCall, Idaho, Transition Area. This proposal is necessary to provide controlled airspace for aircraft holding northwest of McCall, Idaho, VORTAC. Recent changes to holding procedures at McCall VORTAC lowered the holding pattern from 10,000 feet to 9,500 feet MSL, which necessitates lowering the floor of controlled airspace by 300 feet. For ease of charting and to reduce chart clutter, it is proposed to designate this transition area at 1,200 feet rather than as an MSL altitude.

**DATES:** Comments must be received on or before February 21, 1980.

**ADDRESS:** Send comments on the proposal to: Chief, Operations, Procedures and Airspace Branch, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108.

The official docket may be examined at the following location: Office of the Regional Counsel, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108.

**FOR FURTHER INFORMATION CONTACT:** Robert L. Brown, Airspace Specialist, Operations, Procedures and Airspace Branch, (ANW-534), Air Traffic Division, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108; telephone (206) 767-2610.

**SUPPLEMENTARY INFORMATION:**

### Comment Invited

Interested persons may participate in the proposed rule making by submitting such written data, views, or arguments as they may desire. Communications should identify the airspace docket number and be submitted to the Chief, Operations, Procedures and Airspace Branch, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108. All communications received on or before February 21, 1980, will be considered before action is taken on the proposed amendment. The proposal contained in this notice may be changed in light of the comments received. All comments received will be available, before and after the closing dates for comments, in the official docket for examination by interested persons.

### Availability of NPRM

Any person may obtain a copy of this Notice of Proposed Rule Making by submitting a request to the Federal Aviation Administration, Chief, Operations, Procedures and Airspace Branch, ANW-530, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108 or by calling (206) 767-2610. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedure.

### The Proposal

The Federal Aviation Administration is considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter the 9,500 foot McCall, Idaho, Transition Area. This proposal is necessary to provide controlled airspace for IFR holding aircraft, necessitated by lowering the holding pattern from 10,000 feet to 9,500 feet. Accordingly, the FAA proposes to amend Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) by amending § 71.181 as follows:

### McCall, Idaho

Is amended as follows: Delete ". . . 9,500 feet MSL", on line one and replace with ". . . 1,200 feet above the surface".

### Drafting Information

The principal authors of this document are Robert L. Brown, Air Traffic Division, and Hays V. Hettinger, Regional Counsel, Northwest Region, Federal Aviation Administration.

(Sec. 307(a) of the Federal Aviation Act of 1958, as amended, (49 U.S.C. 1348(a)), and of sec. 6(c) of the Department of Transportation Act, (49 U.S.C. 1655(c)))

Note.—The FAA has determined that this document involves a proposed regulation which is not considered to be significant under the procedures and criteria prescribed by Executive Order 12044 and as implemented by Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation, and a comment period of less than 45 days is appropriate.

Issued in Seattle, Washington, January 10, 1980.

C. B. Walk, Jr.,

*Director.*

[FR Doc. 80-1617 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 71

**[Airspace Docket No. 79-ASW-66]**

## Proposed Designation of Transition Area; Mullin, Tex.

**AGENCY:** Federal Aviation Administration (FAA) DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** The nature of the action being taken is to propose designation of a transition area at Mullin, Tex. The intended effect of the proposed action is to provide controlled airspace for aircraft executing a new private instrument approach procedure to the Smokey Bend Ranch Airport. The circumstance which created the need for the action is the proposed establishment of a nondirectional radio beacon (NDB) on the airport.

**DATES:** Comments must be received on or before February 20, 1980.

**ADDRESSES:** Send Comments on the proposal to: Chief, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101.

The official docket may be examined at the following location: Office of the Regional Counsel, Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas.

An informal docket may be examined at the Office of the Chief, Airspace and Procedures Branch, Air Traffic Division.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Stephenson, Airspace and Procedures Branch, ASW-535, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone: (817) 624-4911, extension 302.

**SUPPLEMENTARY INFORMATION:** Subpart G 71.181 (44 FR 442) of FAR Part 71 contains the description of transition areas designated to provide controlled airspace for the benefit of aircraft conducting Instrument Flight Rules (IFR) activity. Designation of a transition area at Mullin, Tex., will necessitate an amendment to this subpart.

## Comments Invited

Interested persons may submit such written data, views, or arguments as they may desire. Communications should be submitted in triplicate to Chief, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101. All communications received on or before February 20, 1980 will be considered before action is taken on the proposed amendment. No public hearing is contemplated at this time, but arrangements for informal conferences with Federal Aviation Administration officials may be made by contacting the Chief, Airspace and Procedures Branch. Any data, views, or arguments presented during such conferences must also be submitted in writing in accordance with this notice in order to become part of the record for consideration. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

## Availability of NPRM

Any person may obtain a copy of this notice of proposed rule making (NPRM) by submitting a request to the Chief, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, or by calling (817) 624-4911, extension 302. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should contact the office listed above.

## The Proposal

The FAA is considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to designate a transition area at Mullin, Tex. The FAA believes this action will enhance IFR operations at the Smokey bend Ranch by providing controlled airspace for aircraft executing proposed instrument approach procedures using the proposed NDB on the airport. Subpart G of Part 71 was republished in the Federal Register on January 2, 1979. (44 FR 442).

## The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the FAA proposes to amend § 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) by adding the Mullin, Tex., transition area as follows:

Mullin, Tex.

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of the Smokey Bend Ranch Airport (latitude 31°28'15"N., longitude 98°42'03.5"W.), and within 3.5 miles each side of the 163° bearing from the NDB (latitude 31°28'24.01"N., longitude 98°41'58.8"W.) extending from the 6.5-mile radius area to 8.5 miles south of the NDB.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation and a comment period of less than 45 days is appropriate.

Issued in Fort Worth, Texas on January 9, 1980.

F.E. Whitfield,
*Acting Director, Southwest Region.*

[FR Doc. 80-1618 Filed 1-18-80; 8:45 am]
BILLING CODE 4910-13-M

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## 14 CFR Part 71

**[Airspace Docket No. 79-ASW-63]**

## Proposed Alteration of Transition Area; Houma, La.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** The nature of the action being taken is to propose alteration of the transition area at Houma, La. The intended effect of the proposed action is to provide additional controlled airspace for aircraft executing instrument approach procedures to the Houma-Terrebonne Airport. The circumstance which created a need for the action is that a review of the current transition area revealed the controlled airspace is not properly described and inadequate for the protection of aircraft executing instrument approach procedures. In addition, higher performance aircraft are utilizing the airport which requires additional controlled airspace.

**DATES:** Comments must be received on or before February 20, 1980.

**ADDRESSES:** Send comments on the proposal to: Chief, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101.

The official docket may be examined at the following location: Office of the Regional Counsel, Southwest Region, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas.

An informal docket may be examined at the Office of the Chief, Airspace and Procedures Branch, Air Traffic Division.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Stephenson, Airspace and Procedures Branch, ASW-535, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone: (817) 624-4911, extension 302.

**SUPPLEMENTARY INFORMATION:** Subpart G 71.181 (44 FR 442) of FAR Part 71 contains the description of transition areas designated to provide controlled airspace for the benefit of aircraft

conducting Instrument Flight Rules (IFR) activity. Alteration of the transition area at Houma, La., will necessitate an amendment to this subpart.

### Comments Invited

Interested persons may submit such written data, views, or arguments as they may desire. Communications should be submitted in triplicate to Chief, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101. All communications received on or before February 20, 1980 will be considered before action is taken on the proposed amendment. No public hearing is contemplated at this time, but arrangements for informal conferences with Federal Aviation Administration officials may be made by contacting the Chief, Airspace and Procedures Branch. Any data, views, or arguments presented during such conferences must also be submitted in writing in accordance with this notice in order to become part of the record for consideration. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

### Availability of NPRM

Any person may obtain a copy of this notice of proposed rule making (NPRM) by submitting a request to the Chief, Airspace and Procedures Branch, Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101, or by calling (817) 624-4911, extension 302. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should contact the office listed above.

### The Proposal

The FAA is considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter the transition area at Houma, La. The FAA believes this action will enhance IFR operations at the Houma-Terrebonne Airport by providing controlled airspace for aircraft executing instrument approach procedures to the airport. Subpart G of Part 71 was republished in the Federal Register on January 2, 1979 (44 FR 442).

### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the FAA proposes to amend § 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) by altering the Houma, La., transition area by deleting the present description and substituting the following:

Houma, La.

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of the Houma-Terrebonne Airport (latitude 29°34'03"N, longitude 90°39'37"W) and within 2 miles each side of the 123° radial of the Tibby VORTAC (latitude 29°39'51"N, longitude 90°49'44"W) extending from the 6.5-mile radius area to the VORTAC.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation and a comment period of less than 45 days is appropriate.

Issued in Fort Worth, Texas on January 9, 1980.

F. E. Whitfield,

*Acting Director, Southwest Region.*

[FR Doc. 80-1619 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

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## 14 CFR Part 71

**[Airspace Docket No. 79-EA-65]**

## Proposed Alteration of Transition Area; Martinsville, Va.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** This notice proposes to alter the Martinsville, Va., Transition Area over Blue Ridge Airport, Martinsville, Va. This alteration will provide protection to aircraft executing an amended VOR-B and a new VOR/DME Runway 30 instrument approach which has been developed for the airport. An instrument approach procedure requires the designation of controlled airspace to protect instrument aricraft utilizing the instrument approach.

**DATES:** Comments must be received on or before March 20, 1980.

**ADDRESSES:** Send comments on the proposal in triplicate to: Chief, Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430. The docket may be examined at the following location: FAA, Office of Regional Counsel, AEA-7, Federal Building, J.F.K. International Airport, Jamaica, New York 11430.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace & Procedures Branch, AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

### Comments Invited

Interested parties may participate in the proposed rulemaking by submitting such written data, views or arguments as they may desire. Communications should identify the airspace docket number and be submitted in triplicate to the Director, Eastern Region, Attention: Chief, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430. All communications received on or before March 20, 1980, will be considered before action is taken on the proposed amendment. The proposals contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

### Availability of NPRM

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Chief, Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430, or by calling (212) 995-3391.

Communications must identify the docket number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedures.

### The Proposal

The FAA is considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter the Martinsville, Va., Transition Area. The airport is at present overlaid by a 700-foot area to which will be added a portion of airspace approximately three miles long and nine miles wide to the southeast side of the area and a portion approximately one mile wide by six miles long to the westerly side of the southern extension.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend Section 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

§ 71.181 [Amended]

1. Amend § 71.181 of Part 71 of the Federal Aviation Regulations so as to amend the description of the Martinsville, Virginia, 700-foot floor transition area as follows:

In the text delete all after, "extended from the 6.5-mile radius area to 14 miles northeast of the end of the runway;" and substitute therefor, "within 4.5 miles each side of the Martinsville, Va. VOR 178° radial extending from the 6.5-mile radius area to 12 miles south of the airport; within 4.5 miles each side of the Martinsville, Va. VOR 115° radial extending from the 6.5-mile radius area to 11 miles southeast of the airport."

(Section 307(a) of the Federal Aviation Act of 1958 [72 Stat. 749; 49 U.S.C. 1348(a)] and of Section 6(c) of the Department of Transportation Act [49 U.S.C. 1655(c)]; and 14 CFR 11.65)

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operation, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Jamaica, New York, on January 7, 1980.

Lonnie D. Parrish,

*Acting Director, Eastern Region.*

[FR Doc. 80-1796 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

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## 14 CFR Part 71

**[Airspace Docket No. 79-EA-64]**

## Proposed Alteration of Transition Area: Pittsburgh, Pa.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** This notice proposes to alter the Pittsburgh, Pa., transition area over Greater Pittsburgh International Airport, Pittsburgh, Pa. This alteration will provide protection to aircraft executing an amended approach procedure, ILS RWY 10L, which has been developed for the airport. An instrument approach procedure requires the designation of controlled airspace to protect instrument aircraft utilizing the instrument approach.

**DATES:** Comments must be received on or before March 20, 1980.

**ADDRESSES:** Send comments on the proposal in triplicate to: Chief, Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430. The docket may be examined at the following location: FAA, Office of Regional Counsel, AEA-7, Federal Building, J.F.K. International Airport, Jamaica, New York 11430.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace & Procedures Branch, AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

Comments Invited

Interested parties may participate in the proposed rulemaking by submitting such written data, views or arguments as they may desire. Communications should identify the airspace docket number and be submitted in triplicate to the Director, Eastern Region, Attention: Chief, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430. All communications received on or before March 20, 1980, will be considered before action is taken on the proposed amendment. The proposals contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

Availability of NPRM

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Chief, Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430, or by calling (212) 995-3391. Communications must identify the docket number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedures.

The Proposal

The FAA is considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter the transition area over Greater Pittsburgh International Airport. The airport is at present overlaid by a 700-foot area which will be extended in an area generally west of the airport to a total distance of about 6.5 miles west of the outer mark.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend Section 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

§ 71.101 [Amended]

1. Amend § 71.101 of Part 71 of the Federal Aviation Regulations so as to amend the description of the Pittsburgh, Pa. 700-foot floor transition area by amending the description to read:

following: "long. 80°13'54" W.", insert the following, "; and within 3.5 miles each side of the runway 10L localizer course extending from the 12-mile radius area to 6.5 miles west of the OM of Greater Pittsburgh International Airport, Pittsburgh, Pa.;"

Section 307(a) of the Federal Aviation Act of 1958 [72 Stat. 749; 49 U.S.C. 1348(a)] and of Section 6(c) of the Department of Transportation Act [49 U.S.C. 1655(c)]; and 14 CFR 11.65.

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operation, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Jamaica, New York, on January 7, 1980.

Lonnie D. Parrish,

*Acting Director, Eastern Region.*

[FR Doc. 80-1797 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

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## 14 CFR Part 71

**[Airspace Docket No. 79-EA-49]**

## Proposed Designation of Transition Area: Durhamville, N.Y.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** This notice proposes to designate a Durhamville, N.Y., transition area over Kamp Airport, Durhamville, N.Y. This designation will provide protection to aircraft executing the new VOR RWY 28 instrument approach

which has been developed for the airport. An instrument approach procedure requires the designation of controlled airspace to protect instrument aircraft utilizing the instrument approach.

**DATES:** Comments must be received on or before March 20, 1980.

**ADDRESSES:** Send comments on the proposal in triplicate to: Chief, Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430. The docket may be examined at the following location: FAA, Office of Regional Counsel, AEA-7, Federal Building, J.F.K. International Airport, Jamaica, New York 11430.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace & Procedures Branch, AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

### Comments Invited

Interested parties may participate in the proposed rulemaking by submitting such written data, views or arguments as they may desire. Communications should identify the airspace docket number and be submitted in triplicate to the Director, Eastern Region, Attention: Chief, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430. All communications received on or before March 20, 1980, will be considered before action is taken on the proposed amendment. The proposals contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

### Availability of NPRM

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Chief, Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430, or by calling (212) 995-3391.

Communications must identify the docket number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedures.

### The Proposal

The FAA in considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to designate a transition area over Kamp Airport. The airport will be overlaid by a 700-foot area and controlled in an area generally northeast out to 13 miles, to the east out to 32 miles and around to the south and southwest out to 24 miles of the airport.

### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend Section 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

### § 71.181 [Amended]

1. Amend § 71.181 of Part 71 of the Federal Aviation Regulations by designating a 700-foot floor transition area at Durhamville, N.Y. as follows:

**Durhamville, N.Y.**

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of the center 43°08'07"N., 75°38'54"W. of Kamp Airport within 2.5 miles each side of 059° bearing of Kamp Airport, extending from the 6.5-mile radius area to 7 miles northeast of the airport; within 5 miles each side of the 107° bearing of Kamp Airport extending from the 6.5-mile radius area to 26 miles east of the airport; within an 18.5-mile radius of the center of the Airport extending from the 6.5-mile radius area extending clockwise from a 122° bearing from the center of the airport to a 235° bearing from the center of the airport.

Section 307(a) of the Federal Aviation Act of 1958 [72 Stat. 749; 49 U.S.C. 1348(a)] and of Section 6(c) of the Department of Transportation Act [49 U.S.C. 1655(c)]; and 14 CFR 11.65.

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operation, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Jamaica, New York, on January 7, 1980.

**Lonnie D. Parrish,**

*Acting Director, Eastern Region.*

[FR Doc. 80-1798 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Part 71

**[Airspace Doc. No. 79-EA-57]**

## Proposed Alteration of Transition Area: Wrightstown, N.J.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of Proposed Rule Making.

**SUMMARY:** This notice proposes to alter the Wrightstown, N.J., Transition Area over Monmouth County Airport, Belmar-Farmingdale, N.J. This alteration will provide protection to aircraft executing the proposed Runway 14 simplified directional facility (SDF) instrument approach which is being developed for the airport. An instrument approach procedure requires the designation of controlled airspace to protect instrument aircraft utilizing the instrument approach.

**DATES:** Comments must be received on or before March 20, 1980.

**ADDRESSES:** Send comments on the proposal in triplicate to: Chief, Airspace and Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430. The docket may be examined at the following location: FAA, Office of Regional Counsel, AEA-7, Federal Building, J.F.K. International Airport, Jamaica, New York 11430.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace & Procedurers Branch AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

### Comments Invited

Interested parties may participate in the proposed rulemaking by submitting such written data, views or arguments as they may desire. Comunications should identify the airspace docket number and be submitted in triplicate to the Director, Eastern Region, Attention: Chief, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430. All communications received on or before March 20, 1980, will be considered before action is taken on the proposed amendment. The proposals contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

Availability of NPRM

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Chief Airspace & Procedures Branch, AEA-530, Eastern Region, Federal Aviation Administration, Federal Building, Jamaica, New York 11430, or by calling (212) 995-3391.

Communications must identify the docket number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedures.

The Proposal

The FAA is considering an amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter the Wrightstown, N.J., Transition Area. The airport is at present overlaid by a 700-foot area to which will be added a portion of airspace approximately eight miles deep and eight miles wide to the northwest.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend Section 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

§ 71.181 [Amended]

Amend § 71.181 of Part 71 of the Federal Aviation Regulations so as to amend the description of the Wrightstown, N.J., 700-foot floor transition area by amending the description to read:

Wrightstown, N.J.

Following, "within a 5-mile radius of Monmouth County Airport (40°11'05" N., 74°07'20" W.); within 2 miles each side of the Colts Neck VORTAC 167° radial extending from the Monmouth County Airport 5-mile radius area to the VOR;" add the following: "within 4 miles each side of the Belmar (BLM), N.J., localizer (40°10'57" N., 74°07'14" W.) 315° bearing extending from the Monmouth County Airport 5-mile radius area to 7-miles northwest of the approach end of Runway 14."

(Section 3907(a) of the Federal Aviation Act of 1958 [72 Stat. 749; 49 U.S.C. 1348(a)] and of Section 6(c) of the Department of Transportation Act [49 U.S.C. 1655(c)]; and 14 CFR 11.65)

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operation, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Jamaica, New York, on January 8, 1980.

Lonnie D. Parrish,

*Acting Director, Eastern Region.*

[FR Doc. 80-1799 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-13-M

## DEPARTMENT OF JUSTICE

### Drug Enforcement Administration

### 21 CFR Part 1308

### Denial of Petitions To Control Dextropropoxyphene in Schedule II; Classification of Dextropropoxyphene as a Narcotic

**AGENCY:** Drug Enforcement Administration, Justice Department.

**ACTION:** Final Rule—Denial of Petition. Notice of Proposed Rulemaking—Classification as Narcotic.

**SUMMARY:** This is a denial of two petitions, one filed by Dr. Sidney M. Wolfe and on behalf of the Public Citizen Health Research Group, and a second filed by Dr. Edward Press, a public health officer for Oregon, to reschedule dextropropoxyphene and all dextropropoxyphene-containing products into Schedule II.

This denial is by the Administrator of the Drug Enforcement Administration, and based upon his receipt of a scientific and medical evaluation and recommendation to that effect by the Assistant Secretary for Health, Department of Health, Education and Welfare, and in accordance with section 201 and 202(b) of the Controlled Substances Act, 21 U.S.C. 811, 812(b), the Administrator of the Drug Enforcement Administration has determined that dextropropoxyphene should remain in Schedule IV of the Controlled Substances Act, and therefore declines to initiate proceedings to transfer or remove it from Schedule IV. The Secretary further recommended that the Administrator classify dextropropoxyphene as a narcotic, and the Administrator issues this Notice of Proposed Rulemaking to initiate that action.

**DATE:** Comments are due on or before February 20, 1980.

**FOR FURTHER INFORMATION CONTACT:** Howard McClain, Chief, Regulatory Control Division, Telephone (202) 633-1366.

**SUPPLEMENTARY INFORMATION:** On November 7, 1978, Dr. Edward Press, State Public Health Officer, Oregon, filed a petition with the Administrator of the Drug Enforcement Administration to transfer dextropropoxyphene from Schedule IV to Schedule II of the Controlled Substances Act. He supplemented his request with additional correspondence to the Administrator dated November 28, 1979, which included some six summarized cases concerning overdoses, toxicity and death from dextropropoxyphene.

On November 21, 1978, the Public Citizen Health Research Group and Dr. Sidney M. Wolfe, jointly, also filed a petition with the Drug Enforcement Administration to transfer dextropropoxyphene (Darvon), and its salts, from Schedule IV to Schedule II of Act.

On February 12, 1979 and again on March 20, 1979, after initial data gathering and analysis and reviewed by DEA, the Drug Enforcement Administration transmitted the petitions and materials related to the issue of dextropropoxyphene control to the Food and Drug Administration, Department of Health, Education and Welfare, for further analysis and review by the Secretary as to the medical and scientific aspects of the petitions, and for subsequent receipt by the Administrator of the Secretary's scientific and medical evaluations and recommendation. These evaluations and recommendation were provided by the Assistant Secretary for Health in his letter dated September 7, 1979 to the Administrator; the September 7, 1979 letter is set forth here in its entirety:

September 7, 1979.

Mr. Peter B. Bensinger, Administrator, Drug Enforcement Administration, 1405 "Eye" Street, N.W., Washington, D.C. 20537.

Dear Mr. Bensinger: On November 21, 1978, a petition was received by the Department of Health, Education, and Welfare and the Department of Justice from the Health Research Group requesting that all propoxyphene containing products be place in Schedule II of the Controlled Substances Act.

The Bureau of Drugs within the Food and Drug Administration has reviewed the relevant data on porpoxyphene pursuant to Section 201 of the CSA and recommends that propoxyphene (including all drug products containing propoxyphene and its salts) remain in Schedule IV of the CSA but should be classified as "narcotics".

I concur with the FDA's recommendation that propoxyphene be classified as a "narcotic". I have also concluded that there is insufficient evidence at this time to justify our recommending to you any change in the current scheduling of propoxyphene.

However, I am now conducting a thorough study of the issues underlying the criteria for scheduling propoxyphene. If that study suggests further action, I will contact you.

A summary of the basis for this recommendation is enclosed.

Sincerely yours,

Julius B. Richmond,

*Assistant Secretary for Health and Surgeon General.*

Enclosure.

In essence and in effect, this recommendation from the Assistant Secretary is not to control dextropropoxyphene as the petitioners have requested.

Therefore, this recommendation of the Assistant Secretary is binding on the Administrator of the Drug Enforcement Administration, and in view thereof and in accordance with the provisions of section 201(b) of the Act, the Administrator shall not institute proceedings to transfer dextropropoxyphene to Schedule II, and in lieu thereof, dextropropoxyphene shall remain in Schedule IV as currently listed.

In the Assistant Secretary's evaluation and recommendation letter of September 7, 1979, he further recommended that dextropropoxyphene be classified as a "narcotic". The above-referenced enclosure to his letter set forth analysis of dextropropoxyphene as a narcotic; and to supplement that analysis, Dr. J. Richard Crout, Director, Bureau of Drugs, Food and Drug Administration, sent a letter dated November 13, 1979, to Mr. Kenneth A. Durrin, Director, Office of Compliance and Regulatory Affairs, DEA, setting forth additional evidence in support of and concluding that dextropropoxyphene is an opiate, and hence, a narcotic drug, as defined in Sections 102(17) and (16) of the Controlled Substances Act [21 U.S.C. 801 (17), (16)].

Accordingly, the Administrator of the Drug Enforcement Administration, under the authority of the Act and regulations of the Department of Justice and the Drug Enforcement Administration, hereby proposes that § 1308.14 of Title 21, Code of Federal Regulations (CFR), be amended:

**§ 1308.14 [Amended]**

(1) By removing dextropropoxyphene as item (1) of subsection (f) thereof and renumbering item (2) pentazocine as item (1); and

(2) By re-listing dextropropoxyphene as item (2) of subsection (b) *Narcotic Drugs* of § 1308.14.

All interested persons are invited to submit their comments in writing regarding this proposal on or before February 20, 1980. These comments should state with particularity the issues concerning which the person desires to be heard. Comments should be submitted in quintuplicate to the Administrator, Drug Enforcement Administration, United States Department of Justice, 1405 I Street, NW., Washington, D.C. 20537, Attention: DEA Federal Register Representative.

Dated: January 11, 1980.

Frederick A. Rody, Jr.,

*Acting Administrator, Drug Enforcement Administration.*

[FR Doc. 80-1816 Filed 1-18-80; 8:45 am]

BILLING CODE 4410-09-M

## DEPARTMENT OF THE TREASURY

### Internal Revenue Service

### 26 CFR Parts 1 and 7

**[LR-2-78]**

### Requirements Relating to Certain Exchanges Involving a Foreign Corporation; Public Hearing on Proposed Regualtions

**AGENCY:** Internal Revenue Service, Treasury.

**ACTION:** Public hearing on proposed regualtions.

**SUMMARY:** This document provides notice of a public hearing on proposed regulations relating to (1) ruling requests in respect to certain transfers involving a foreign corporation and (2) the extent which a foreign corporation shall be considered to be a corporation in connection with certain exchanges.

**DATES:** The public hearing will be held on February 27, 1980, beginning at 10:00 a.m. Outlines of oral comments must be delivered or mailed by February 13, 1980.

**ADDRESS:** The public hearing will be held in the I.R.S. Auditorium, Seventh Floor, 7400 Corridor, Internal Revenue Building, 1111 Constitution Avenue, N.W., Washington, D.C. The outlines should be submitted to the Commissioner of Internal Revenue, Attn: CC:LR:T (LR-2-78), Washington, D.C. 20224.

**FOR FURTHER INFORMATION CONTACT:** Jason Felton or George Bradley of the Legislation and Regulations Division, Office of Chief Counsel, Internal Revenue Service, 1111 Constitution Avenue, N.W., Washington, D.C. 20224, 202-566-3289, not a toll-free call.

**SUPPLEMENTARY INFORMATION:** The subject of the public hearing is proposed regulations under section 367 of the Internal Revenue Code of 1954. These proposed regulations were published in the Federal Register for Friday, December 30, 1977, at page 65152 (42 FR 65152), and Friday, October 5, 1979, at page 57390 (44 FR 57390); and as temporary regulations (T.D. 7530 and T.D. 7646, respectively) at the same citations.

The rules of § 601.601(a)(3) of the "Statement of Procedural Rules" (26 CFR Part 601) shall apply with respect to the public hearing. Persons who have submitted written comments within the time prescribed in the notice of proposed rulemaking and also desire to present oral comments at the hearing on the proposed regulations should submit an outline of the comments to be presented at the hearing and the time they wish to devote to each subject by February 13, 1980. Each speaker will be limited to 10 minutes for an oral presentation exclusive of time consumed by questions from the panel for the Government and answers to these questions.

Because of controlled access restrictions, attendees cannot be admitted beyond the lobby of the Internal Revenue Building until 9:45 a.m.

An agenda showing the scheduling of the speakers will be made after outlines are received from the speakers. Copies of the agenda will be available free of charge at the hearing.

This document does not meet the criteria for significant regulations set forth in paragraph 8 of the Treasury Directive appearing in the Federal Register for Wednesday, November 8, 1978.

By direction of the Commissioner of Internal Revenue.

Robert A. Bley,

*Director, Legislation and Regulations Divisions.*

[FR Doc. 80-1876 Filed 1-18-80; 8:45 am]

BILLING CODE 4830-01-M

## DEPARTMENT OF THE INTERIOR

### Heritage Conservation and Recreation Service

### 36 CFR Part 1227

### Recreation Fees

**AGENCY:** Heritage Conservation and Recreation Service, Interior.

**ACTION:** Proposed Rule.

**SUMMARY:** The Heritage Conservation and Recreation Service, with the consent of all Federal agencies involved, is proposing to amend 36 CFR Part 1227.9, Federal Recreation Fee Program. The Proposed amendment will allow the Department of Interior land-managing agencies to establish recreation fees,

primarily emphasizing that such fees be comparable with other Federal and non-Federal public agencies providing similar services and facilities.

Other factors that will be considered, as provided by law, are the direct and indirect cost to the government, the benefits to the recipient, the public policy or interest served, the economic and administrative feasibility of collection and other pertinent factors.

Agencies not within the Department of the Interior, who are also participating in this Federal Recreation Fee Program, will amend their Departmental regulations to set forth similar provisions. These agencies are, the Corps of Engineers, the Tennessee Valley Authority, and the U.S. Forest Service.

**DATE:** Comments must be received on or before February 20, 1980.

**ADDRESS:** Written comments should be addressed to the Chief, Federal Lands Planning, Heritage Conservation and Recreation Service, DOI, 440 G Street NW, Room 236, Washington D.C. 20243 (202) 343–7665. For Further Information Contact: Jim Cook, Heritage Conservation and Recreation Service, 440 G Street NW, Room 236, Washington D.C. 20243 (202) 343–7665.

**SUPPLEMENTARY INFORMATION:** The Federal Recreation Fee Program is a coordinated effort by the following land-managing agencies to uniformly establish and collect recreation fees as provided 16 U.S.C. 460 1–6a.

1. National Park Service.
2. Fish and Wildlife Service.
3. Bureau of Land Management.
4. Water and Power Resources Service.
5. Corps of Engineers.
6. Tennessee Valley Authority.
7. U.S. Forest Service.

The Federal Interagency Fee Task Force is composed of representatives from each of the seven agencies, with the Heritage Conservation and Recreation Service as the coordinating agency. Early in 1974, this Task Force was formed with the primary task of writing rules and regulations to implement provisions of 16 U.S.C. 460 1–6a.

Presently, the Federal Recreation Fee structure provided in the Department of Interior regulations sets forth fee ceilings for specific types of recreation facilities and services. At the time the regulations were written, it seemed reasonable to set such ceilings. Recent concern has been expressed by the seven land-managing agencies regarding the ceilings.

They have indicated that unless the ceilings are deleted from the regulations, charging fees comparable with Federal and non-Federal *public* agencies, as allowed by law, will not be possible in some areas of the United States. On July 20, 1979, a meeting of the Federal Recreation Fee Task Force was held in an attempt to resolve this problem. Consensus on amending the regulations, allowing consideration of comparability instead of the fee ceilings, was achieved.

It is important to note, that the deletion of fee ceilings will not of itself result in increased fees and charges. It does permit establishment of comparable fees as allowed by law. Fees may increase or decrease in some areas of the United States to the extent that comparability will be achieved with Federal and non-Federal public agencies. Fees and charges will vary throughout the country depending on the local governmental units providing recreation services.

No major national or region-wide impact on local governments is expected or intended. Interstate relations are anticipated to improve as a result of this amended rule. For example, where Federal lands are bisected by State lines, comparable fees will be established according to other nearby Federal and non-Federal *public* agency recreation fees for similar opportunities. The present fee ceiling structure does not provide the flexibility needed to adjust fees and achieve comparability.

The intent of this amendment is to authorize the establishment of comparable fees, both locally and region-wide, for recreation services.

In January of 1973, and Environmental Assessment was prepared by the Bureau of Outdoor Recreation. In this report, the potential environmental impacts resulting from the issuance of recreation for Federal Recreation Fees was considered and found to be insignificant, therefore no Environmental Impact Statement is required for these proposed regulations under the National Environmental Policy Act 42 U.S.C. SS 4321 et. seq.

Inflationary impacts have also been considered. The Council on Wage and Price Stability has indicated that Federal agencies charging recreation fees would have the potential to be excepted from the voluntary price control standard. The reason for this is that the Land and Water Conservation Fund Act, as amended, precedes the voluntary price control standards. In addition, the fees collected by the Federal land-managing agencies amounts to less than 10% of the total cost of providing recreation services funded out of general tax receipts and, therefore, are excepted from the standards. It should be understood that revenues derived by the seven participating agencies in accordance with 16 U.S.C. 460 1–6a are utilized within those agencies to offset appropriations granted out of general tax revenues.

The Department of the Interior has determined that this document is not a significant rule and does not require a regulatory analysis under Executive Order 12044 and 43 CFR Part 14.

The primary author of this document is Mr. Brian Romanek, Division of Federal Lands Planning, Heritage Conservation and Recreation Service, 440 G Street NW., Washington, D.C. 20243, (202) 343–7665.

In consideration of the foregoing, it is proposed to amend 36 CFR 12 Part 1227 by revising § 1227.9 as follows:

**§ 1227.9 Establishment of recreation use fees.**

(a) Recreation use fees shall be established by all outdoor recreation administering bureau of the Department of the Interior in accordance with the following criteria:

(1) The direct and indirect cost of the government.

(2) The benefit to the recipient.

(3) The public policy or interest served.

(4) The comparable recreation fees charged by other Federal and non-Federal public agencies within the service area of the management unit at which the fee is charged.

(5) The economic and administrative feasibility of fee collection.

(6) The pertinent factors.

(b) With the approval of the Secretary of the Interior recreation use fees may be established for other types of facilities in addition to those which are listed below.

(c) Types of recreation facilities for which use fees may be charged:

Camp and trailer sites [1]
Group camping sites [1 2]
Specialized boat launching facilities and services

[1] Provided that in no event shall there be a charge for the use of any campsite and adjacent related facilities unless the campground in which the site is located has all of the following: Tent or trailer spaces, drinking water, access road, refuse containers, toilet facilities, personal collection of the fee by an employee or agent of the bureau operating the facility, reasonable visitor protection, and simple devices for containing a campfire (where campfires are permitted).

[2] The administering bureau may establish a group use rate in lieu of the above "Group Camping Sites" recreation use fee in accordance with the criteria set out in this section provided such rate is not less than $3.00 per day per group. Such a group use rate may constitute either a special recreation permit fee or a recreation use fee as determined by the administering bureau.

Lockers [3]
Boat storage and handling
Elevators
Ferries and other means of transportation
Bathhouses
Swimming pools
Overnight shelters
Guided tours
Electrical hook-ups
Vehicle and trailer storage
Rental of nonmotorized boats
Rental of motorized boats
Rental of hunting blinds
Reservation services
Specialized sited (highly developed).

Dated: January 14, 1980.

Chris Therral Delaporte,

*Director, Heritage Conservation and Recreation Service.*

[FR Doc. 80-1784 Filed 1-12-80; 8:45 am]

BILLING CODE 4310-03-M

## VETERANS ADMINISTRATION

### 38 CFR Part 36

### Loan Guaranty; Acquisition and Improvement Loans

**AGENCY:** Veterans Administration.

**ACTION:** Proposed regulations.

**SUMMARY:** The VA (Veterans Administration) is proposing to amend its regulations to authorize veterans purchasing an existing home with a VA guaranteed loan to secure additional funds at the time of home acquisition for energy saving home improvements or other alterations, improvements, or repairs. These regulations are proposed to assist veterans in making their homes more energy efficient, to save valuable fossil fuel resources, and to protect the veteran's investment in his or her home by lowering monthly utility bills.

The VA also is proposing to amend its regulations to authorize lenders to report closed loans for guaranty at any time within 60 days following full disbursement of the loan. These amendments are proposed to liberalize loan reporting requirements by extending from 30 to 60 days the time within which a loan must be reported to the VA for loan guaranty. It is expected that the adoption of these amendments will reduce paperwork for program participants and the VA by eliminating the majority of late reported loans.

**DATES:** Comments must be received on or before February 20, 1980. It is proposed to make this amendment effective on the date of final approval.

[3] Use fees for boat ramps are prohibited. However, in the case of boat launching facilities with specialized facilities or services, such as mechanical or hydraulic lifts, reasonable fees may be assessed in accordance with the criteria set out in a paragraph (a) of this section.

Comments will be available for public inspection at the address shown below until March 3, 1980.

**ADDRESSES:** Send written comments to: Administrator of Veterans' Affairs (271A), Veterans Administration, 810 Vermont Avenue NW., Washington, D.C. 20420.

**FOR FURTHER INFORMATION CONTACT:** Mr. George D. Moerman, Assistant Director for Loan Policy (264), Loan Guaranty Service, Veterans Administration, Washington, DC 20420 (202-389-3042).

**SUPPLEMENTARY INFORMATION:** The VA is proposing to amend the home loan (§ 36.4300 series) regulations to authorize the guaranteeing of loans which will include funds for simultaneous acquisition and improvement of existing homes. The amendments will make it possible for a veteran purchasing an existing home to finance the installation of energy conserving improvements at the time of home acquisition. For example, improvements could include insulation, storm windows, a heat pump, solar energy water heating equipment, or solar heating and/or cooling equipment. A veteran also could make other desired alterations, improvements, or repairs such as the addition of a bathroom or the modernization of a kitchen.

The proposed amendment to § 36.4301(c) adds a new definition entitled "Acquisition and Improvement Loan". The proposed amendment to § 36.4301(n) authorizes lenders to place the portion of the loan funds for improvements in an escrowed or earmarked account pending completion of the home improvements. The proposed amendments to § 36.4303(a) delete the requirement that home loans processed on the automatic basis may not be guaranteed until the home improvements have been completed. The amendments to §§ 36.4301(n) and 36.4303(a), therefore, will allow acquisition and improvement loans to be guaranteed once the loan has been closed, title to the property has been properly acquired, and the improvement funds satisfactorily escrowed or earmarked. Similarly, the amendments to §§ 36.4301(n) and 36.4303(d) will authorize loans closed on the prior approval basis to be guaranteed after the loan has been properly closed, title to the property properly acquired, and the improvement funds placed in an escrowed or earmarked account. In addition, amendments are proposed to § 36.4312(d)(6) to authorize the veteran to pay the discount on that portion of the loan which is for energy conservation improvements or other alterations, improvements, or repairs. Since a majority of VA guaranteed loans are sold to secondary market investors, VA lenders often require discounts in order to sell the loan on the secondary market. A lender making a VA loan and selling it on the secondary market will require discounts on the entire loan amount. However, the seller of an existing property probably will be unwilling to pay the loan discount on the improvements portion of the loan. Thus, the amendment to § 36.4312(d)(6) will authorize the veteran to pay the discount on the improvement portion of the loan provided it does not exceed the percentage of discount paid by the seller on the acquisition portion of the loan.

The VA is proposing these amendments to assist veterans to obtain the home of their choice and to make energy conservation improvements (or other alterations, improvements, or repairs) to the property. It is expected that if these amendments are adopted, veterans will be able to secure the lower interest rate and longer loan terms afforded by VA guaranteed acquisition loans to finance energy conserving improvements or other improvements. These improvements should help to conserve fossil fuels and at the same time lower the veteran's utility bills.

Amendments also are proposed to §§ 36.4303(a), (d), and 36.4335 to allow lenders to report either automatic or prior approval loans for guaranty within 60 days following full loan disbursement. Presently, loans must be reported to the VA within 30 days of full disbursement in order to be eligible for loan guaranty. A substantial number of loans are reported "late" or over 30 days after full loan disbursement, but are otherwise eligible for guaranty. Lenders reporting loans late must request a waiver which must be accepted by VA, and the waiver appropriately documented in the VA loan file. A very large number of these late reporting loans are reported within 60 days of full loan disbursement. Waivers of such late reported loans generally are granted, but these waiver actions are time-consuming. We believe that allowing lenders up to 60 days to report a home or condominium loan for guaranty will have no significant adverse impact upon the veteran's interest in his or her home or the government's interest in the protection of the guaranteed loan revolving fund. The proposed amendments should have a beneficial effect by reducing paperwork for both program participants and the VA.

A technical clarifying amendment also is proposed to § 36.4303(b). An

amendment to § 36.4303(f) is proposed to delete an obsolete proviso.

The amendments are proposed under authority of sections 210(c), 1803(c)(1), 1810(a)(1), (4), and (7) of title 38, United States Code.

**ADDITIONAL COMMENT INFORMATION:** Interested persons are invited to submit written comments, suggestions, or objections regarding the proposal to the Administrator of Veterans' Affairs (271A), Veterans' Administration, 810 Vermont Avenue, NW, Washington, DC 20420. All written comments received will be available for public inspection at the above address only between 8 a.m. and 4:30 p.m., Monday thru Friday (except holidays) until March 3, 1980. Any persons visiting Central Office for the purpose of inspecting any such comments will be received by the Central Office Veterans Services Unit in room 132. Such visitors to any VA field station will be informed that the records are available for inspection only in Central Office and furnished the address and the above room number.

Approved: January 14, 1980.

By direction of the Administrator.

Rufus H. Wilson,

*Deputy Administrator.*

1. In § 36.4301, paragraph (c) is added and paragraph (n) is revised so that the added and revised material reads as follows:

**§ 36.4301 Definitions.**

* * * * *

(c) "Acquisition and improvement loan." A loan to purchase an existing property which includes additional funds for the purpose of installing energy conservation improvements or making other alterations, improvements, or repairs. (38 U.S.C. 1803(c)(1), 1810(a)(1), (4), and (7))

* * * * *

(n) "Full disbursement." Payment by a lender of the entire proceeds of a loan for the purposes described in the report of the lender in respect of such loan to the Administrator either—

(1) By payment to those contracting with the borrower for such purposes, or

(2) By payment to the borrower, or

(3) By transfer to an account against which the borrower can draw at will, or

(4) By transfer to an escrow account, or

(5) By transfer to an earmarked account if

(i) The amount thereof is not in excess of 10 percent of the loan, or

(ii) The loan is an Acquisition and Improvement loan pursuant to § 36.4301(c), or

(iii) The loan is one submitted by a lender of the class specified in 38 U.S.C. 1802(d) or 1815(a). (38 U.S.C. 1803(c)(1))

* * * * *

2. Section 36.4303 is amended as follows:

(a) By deleting "if the application of the veteran to a lender for such loan was made on or after September 15, 1956," in the last sentence of paragraph (f).

(b) By revising paragraphs (a). (b) and (d) to read as follows:

**§ 36.4303 Reporting requirements.**

(a) With respect to loans automatically guaranteed under 38 U.S.C. 1803(a)(1) evidence of the guaranty will be issuable to a lender of a class described under 38 U.S.C. 1802(d) if the loan is reported to the Administrator within 60 days following full disbursement, and upon the certification of the lender that:

(1) No default exists thereunder which has continued for more than 30 days;

(2) Except for acquisition and improvement loans as defined in § 36.4301(c), any construction, repairs, alterations, or improvements effected subsequent to the appraisal of reasonable value, and paid for out of the proceeds of the loan, which have not been inspected and approved upon completion by a compliance inspector designated by the Administrator have been completed properly in full accordance with the plans and specifications upon which the original appraisal was based, and any deviations or changes of identity in said property have been approved as required in § 36.4304 concerning guaranty or insurance of loans to veterans;

(3) The loan conforms otherwise with the applicable provisions of 38 U.S.C. ch. 37 and of the regulations concerning guaranty or insurance of loans to veterans. (38 U.S.C. 1803(c)(1))

(b) Loans made pursuant to 38 U.S.C. 1815 although not entitled to automatic insurance thereunder may, when made by a lender of a class described in 38 U.S.C. 1802(d)(1), be reported for issuance of an insurance credit or a certificate of commitment as provided in paragraph (a) of this section. (38 U.S.C. 1802(d), 1815)

* * * * *

(d) A certificate of commitment shall entitle the holder to the issuance of the evidence of guaranty or insurance upon the ultimate actual payment of the full proceeds of the loan for the purposes described in the original report and upon the submission within 60 days thereafter of a supplemental report showing that fact and—

(1) The identity of any property purchased therewith,

(2) That all property purchased or acquired with the proceeds of the loan has been encumbered as required by the regulations concerning guaranty or insurance of loans to veterans,

(3) Except for acquisition and improvement loans as defined in § 36.4301(c), any construction, repairs, alterations, or improvements paid for out of the proceeds of the loan which have not been inspected and approved subsequent to completion by a compliance inspector designated by the Administrator have been completed properly in full accordance with the plans and specifications upon which the original appraisal was based and that any deviations or changes of identity in said property have been approved as required by § 36.4304, and

(4) That the loan conforms otherwise with the applicable provisions of 38 U.S.C. ch. 37 and the regulations concerning guaranty or insurance of loans to veterans. (38 U.S.C. 1803(c)(1))

* * * * *

3. In § 36.4312, paragraph (d)(6)(i)(B) and (iii) is revised and paragraph (d)(6)(iv) is added so that the added and revised material reads as follows:

**§ 36.4312 Charges and fees.**

* * * * *

(d) The following schedule of permissible fees and charges shall be applicable to all Veterans Administration-guaranteed or insured loans:

* * * * *

(6) Allowable discounts.

(i) The veteran borrower subject to the limitations set forth in this paragraph, may pay a discount required by a lender when the proceeds of the loan will be used for any of the following purposes:

* * * * *

(B) To repair, alter or improve a dwelling owned by the veteran pursuant to 38 U.S.C. 1810(a)(4) or (7);

* * * * *

(iii) A veteran may pay the discount on an Acquisition and Improvement loan (as defined in § 36.4301(c)) provided:

(A) The veteran pays no discount on the acquisition portion of the loan except in accordance with paragraph (d)(6)(i)(D) of this section; and

(B) The discount paid on the improvements portion of the loan does not exceed the percentage of discount paid on the acquisition portion of the loan.

Acquisition and Improvement loans may be closed either on the automatic or prior approval basis.

(iv) All powers of the Administrator under paragraph (d)(6) of this section are hereby delegated to those officials designated by § 36.4342(b). (38 U.S.C. 1803(c)(1), 1810(a))

4. In § 36.4335, paragraphs (a) and (b) are revised to read as follows:

**§ 36.4335 Supplementary administrative action.**

* * * * *

(a) The requirement in § 36.4303(a) that a lender of a class described under 38 U.S.C. 1802(d) originating a loan under the automatic (nonprior approval) procedure report such loan for issuance of guaranty or insurance evidence within 60 days following full disbursement. Waiver of the lender's failure to report the loan within the 60-day period shall be confined to cases where the loan is not in default. (38 U.S.C. 1803(c)(1))

(b) The requirement in § 36.4303(d) that a lender originating a loan under a certificate of commitment report the loan for issuance of guaranty or insurance evidence within 60 days following actual payment of the full proceeds of the loan. In such cases it is not necessary that a finding be made that the loan is not in default. (38 U.S.C. 1803(c)(1))

* * * * *

[FR Doc. 80-1783 Filed 1-18-80; 8:45 am]
BILLING CODE 8320-01-M

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[FRL 1396-3]

### Notice of Proposed Rulemaking: Miscellaneous Revisions to Massachusetts Implementation Plan

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** EPA is proposing to approve three revisions to the Massachusetts State Implementation Plan (SIP). Amendments to the Sulfur-in-Fuel regulation would allow use of higher sulfur fuel oil at two sources in Fitchburg on a year-round basis. Amendments to the Open Burning regulation would allow brush burning in certain areas of the State from January 15 to May 1 of each year. Finally, the provisions of the Fuel Oil Viscosity regulation, which requires installation of automatic viscosity controllers, would be varied for the Cambridge Electric Light Company.

**DATES:** Comments must be received on or before February 20, 1980.

**ADDRESSES:** Copies of the Massachusetts submittals and EPA's evaluation are available for public inspection during normal business hours at the Environmental Protection Agency, Region I, Room 1903, JFK Federal Building, Boston, Massachusetts 02203; Public Information Reference Unit, Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460; and the Division of Air and Hazardous Materials, Department of Environmental Quality Engineering, Room 320, 600 Washington Street, Boston, Massachusetts 02111.

Comments should be submitted to the Regional Administrator, Region I, Environmental Protection Agency, Room 2203, JFK Federal Building, Boston, Massachusetts 02203.

**FOR FURTHER INFORMATION CONTACT:** Deborah Ikehara, Air Branch, EPA Region I, Room 1903, JFK Federal Building, Boston, Massachusetts 02203, (617)/223-5609.

**SUPPLEMENTARY INFORMATION:** The Commissioner of the Massachusetts Department of Environmental Quality Engineering (the DEQE) has submitted several revisions to the Massachusetts State Implementation Plan (SIP), which are not part of an attainment plan under Part D of the Clean Air Act as amended (the Act). The SIP revisions amend Regulations 310 CMR 7.05(1) and 7.07, and vary the provisions of Regulation 7.04(5).

Amendments to Regulation 310 CMR 7.05(1), Sulfur Content of Fuels and Control Thereof, were submitted on September 28, 1979. This regulation presently allows the use of 2.2% sulfur residual fuel oil at sources in the Central Massachusetts Air Pollution Control District (CMAPCD) which are larger than 100 million Btu/hour heat input, except those located in Worcester. Sources smaller than 100 million Btu/hour heat input and all sources in Worcester are limited to 1.0% sulfur fuel. However, a special provision limits the use of 2.2% sulfur fuel at the large sources in Fitchburg to seven months of the year, April through October; during the rest of the year, November through March, these sources must burn 1.0% sulfur fuel. The proposed revision would remove the seasonal restrictions in Fitchburg.

The original SIP called for all sources in the CMAPCD to use fuel with a maximum sulfur content of 1.0%. The present SIP regulation was approved by EPA on a temporary basis on May 19, 1977, extended on June 21, 1978, and approved permanently on July 16, 1979. Although the DEQE's previous submittals proposed a seasonal strategy for the Fitchburg sources, EPA reviewed the four eligible sources as if they were burning 2.2% sulfur fuel on a year-round basis. Only those sources were approved which could burn the higher sulfur fuel year-round without causing NAAQS violations, consistent with EPA's policy that supplemental or intermittent control measures are illegal.

The DEQE's present submittal requests approval for only two of the four sources in Fitchburg which are larger than 100 million Btu/hour. These two sources, Fitchburg Paper Company (55 meter stacks only) and James River-Massachusetts, have been approved by EPA to burn 2.2% sulfur fuel in accordance with the present SIP regulation, but the other two sources, General Electric and Fitchburg Gas and Electric, and the 23 meter stacks at Fitchburg Paper are limited by EPA to 1.0% sulfur fuel at all times.

Technical support for the proposed revision includes an evaluation of compliance with the National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments for sulfur dioxide ($SO_2$).

Dispersion modeling results from EPA's 1976 evaluation of the air quality impact of the first SIP revision were cited by DEQE. Annual $SO_2$ concentrations were estimated with EPA's Valley (BURT) model. No violations of the annual NAAQS of 80 $\mu g/m^3$ (0.03 ppm) will occur if all four sources were to burn 2.2% sulfur oil year-round. Twenty-four hour concentrations were estimated by EPA using two methods: the Valley model with short-term (worst case) option and the PTMTP model. General Electric, Fitchburg Gas and Electric, and the 23 meter stacks of Fitchburg Paper Company were shown to cause or contribute to violations of the 24-hour NAAQS of 365 $\mu g/m^3$ (0.14 ppm).

The PSD short-term increments (3-hour and 24-hour) are not consumed by the proposed revision, since short-term air quality levels reflecting emissions from 2.2% sulfur fuel combustion are included in the August 7, 1977 baseline concentration. However, increases over the baseline concentration will occur on an annual basis as a result of 2.2% sulfur fuel combustion during an additional five months of the year; thus, DEQE evaluated the impact of this SIP revision on the annual increment. The results show a maximum increment consumption of 7 $\mu g/m^3$ at a point 1 km SSW of the James River plant, compared

to the annual allowable increment of 20 $\mu g/m^3$.

EPA is proposing to approve the revision to Regulation 310 CMR 7.05(1) to allow the year-round use of 2.2% sulfur residual fuel oil at James River-Massachusetts, Fitchburg, and in the boilers vented by the 55 meter stacks at Fitchburg Paper Company, Fitchburg. Approval of the revision should not result in violations of the NAAQS or the PSD annual increment. All other sources in Fitchburg must continue to burn 1.0% sulfur oil, including the 23 meter stacks at Fitchburg Paper.

Amendments to Regulation 310 CMR 7.07, Open Burning were submitted on September 28, 1979. The present regulation permits open burning for cooking; for training or research in fire protection or prevention; for combating or backfiring an existing fire; for agricultural purposes, agricultural land clearing, and disposal of fungus-infested elm wood; for operation of blowtorches and welding torches; for disposal of combustible material for which no suitable alternative is available; and for reduction of brush, cane, driftwood, and forestry debris under certain conditions during two months of each year.

The SIP revision extends the time period allowed for open burning of brush, cane, driftwood, and forestry debris. The months during which brush burning presently is permitted are March 1 to May 1 in the Berkshire APCD and January 15 to March 15 in the other APCD's. The proposed revision would allow a uniform period throughout the State, from January 15 to May 1 or each year. The conditions under which brush burning is allowed remain unchanged, and include the following:

Open burning of grass, hay, leaves and stumps is not permitted;

Open burning is not to be conducted in the cities and towns listed, which show recorded or potential violations of the National Ambient Air Quality Standards (NAAQS) for *total suspended particles* (TSP);

Open burning must be conducted during periods of good atmospheric ventilation;

Smoke minimizing starters must be used if starting aids are needed;

A fire permit must be obtained per Section 13, Ch. 48, Massachusetts General Laws;

Creation of nuisance conditions is prohibited;

Open burning must be conducted on land proximate to the place of generation;

Open burning must be 75 feet from any occupied dwelling;

Open burning must take place between 10:00 AM and 4:00 PM; and

Open burning is prohibited at all refuse disposal facilities other than incinerators.

Two cities, Fitchburg and Pittsfield, are removed from the list of cities and towns where brush burning is prohibited. A new provision is added which allows DEQE to prohibit bursh burning in other cities and towns in addition to those listed, where the DEQE has notified the city or town that open burning of brush may cause or contribute to NAAQS violations or to a condition of air pollution, or where a city or town has failed to take action to prevent continued violations of the provisions of the regulation after being notified by the DEQE of such violations.

Finally, a footnote is added to explain the reference is subsection (3)(g)4 of the regulation to Section 13 of Chapter 48 of the General Laws of Massachusetts, concerning fire permits.

The SIP revision submittal does not contain a quantitative air quality impact evaluation or estimates of emissions increases. The DEQE's approach minimizes potential impacts of open burning emissions on TSP levels by prohibiting brush burning in those cities and towns where particulate NAAQS had been or were likely to be exceeded, and by setting conditions on brush burning which are designed to ensure that the dispersive capacity of the atmosphere is fully utilized. The impact of the revision on air quality levels is expected to be minimal.

EPA is proposing to approve the revision to Regulation 310 CMR 7.07, which will allow open burning of brush from January 15 to May 1 of each year. Emissions resulting from the revision are not expected to impact TSP levels in non-attainment areas, and any impacts elsewhere will be minimized by the safeguards contained in the regulation.

A SIP revision to vary the provisions of Regulation 310 CMR 7.04(5), Fuel Oil Viscosity, was submitted on December 28, 1978. The regulation requires the installation and use of automatic viscosity controllers at fossil fuel utilization facilities of over 250 million Btu/hour heat input, effective July 1, 1978. The proposed revision would vary the provisions of Regulation 7.04(5) as it applies to two plants owned and operated by the Cambridge Electric Light Company, Kendall Station, First Street, Cambridge, and Blackstone Station, Blackstone Street, Cambridge. Both plants utilize residual fuel oil of not more than 0.5% sulfur content.

Cambridge Electric's request to continue to operate without installing automatic viscosity controllers was supported by fuel and operational data submitted to the DEQE and presented at the public hearing. Cambridge Electric's main assertion is that automatic viscosity controllers are not necessary because of the consistent characteristics of their fuel oil and because their presnt mode of operation is smooth and reliable.

No improvement in performance or emissions is expected to result from use of automatic viscosity controllers. In fact, Cambridge Electric feels that such equipment could possibly disrupt their operations, especially during changes in load, because the controller portion of these systems is not perfected. Two potentially adverse situations were described: the lag time between signal recognition/interpretation and adjustment of steam flows to the oil heater could cause viscosity problems during load changes; and malfunctions of the control equipment would affect the viscosity.

EPA is proposing to approve the variance to Regulation 310 CMR 7.04(5) for Cambridge Electric's Kendall and Blackstone Stations in Cambridge, which will allow these two plants to operate without installing automatic viscosity controllers. Cambridge Electric has shown that compliance with the particulate emission limitation and opacity requirements has not been a problem at the plants in question, and in this particular case, continued compliance is not dependent on installation and use of automatic viscosity controllers. Instead, use of low sulfur residual oil which consistently meets tight specifications is an effective particulate control measure. Approval of this SIP revision is not expected to result in increased particulate emissions and should therefore have no impact on ambient air quality standards or on the PSD increments.

The Administrator's decision to approve or disapprove the plan revisions will be based on whether they meet the requirements of Section 110(a)(2)(A)-(K) and 110(a)(3) of the Clean Air Act, as amended, and EPA regulations in 40 CFR Part 51. These revisions are being proposed pursuant to Sections 110(a) and 301 of the Clean Air Act, as amended, (42 U.S.C. 7401 and 7601).

Dated: January 9, 1980.

William R. Adams, Jr.,

*Regional Administrator.*

[FR Doc. 80-1835 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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## 40 CFR Part 52

[FRL 1396-2]

## Approval of Oregon State Implementation Plan; Proposed Rulemaking

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rulemaking.

**SUMMARY:** This proposed rulemaking addresses State Implementation Plan (SIP) revisions submitted by the State of Oregon pursuant to requirements of Part D of the Clean Air Act. Subjects being addressed here include general regulations under Part D (new source review, automobile inspection and maintenance, industrial sources of hydrocarbon emissions, etc.), and area specific control strategies for carbon monoxide (CO), ozone, ($O_3$), and total suspended particulates (TSP).

EPA is proposing to approve these SIP revisions contingent upon correction of certain deficiencies. Those two areas which represent our greatest concern are stationary source hydrocarbon regulations and automobile inspection and maintenance (I/M) for Portland. In the stationary source hydrocarbon regulations, gasoline marketing rules need clarification and revision to ensure that they represent reasonable available control technology (RACT); degreaser regulations also need additional requirements to make them equivalent to RACT. Further, compliance schedules are needed for sources subject to these hydrocarbon regulations. The Portland I/M program must be assessed to determine if the present biennial inspection is consistent with the requirements for an approvable ozone control strategy. If the present (biennial) program does not meet the minimum effectiveness requirement of 25 percent reduction in hydrocarbon emissions, or if further reductions in hydrocarbons are shown to be needed to attain ambient ozone standards, measures will have to be adopted to increase the effectiveness of the current program; i.e., requiring inspection on an annual basis.

It should be kept in mind that some of the deficiencies listed herein may in fact be the result of differing opinions or interpretations between EPA and the State as to the nature of the State's proposed action or of the potential impact of such action. For that reason, the public, and especially the State, are urged to comment upon both the correctness and the appropriateness of the deficiencies identified by EPA. Final action will be based on a careful review of all comments received during the comment period initiated by this notice.

**DATE:** Comments are due by February 20, 1980.

**ADDRESSES:** The Oregon submittal may be examined during normal business hours at the following locations:

Public Information Reference Unit, Library System Branch, Environmental Protection Agency, 401 M Street S.W., Rm 2922, Washington, D.C. 20460.

Environmental Protection Agency, Library, Region 10, 1200 Sixth Avenue, Seattle, WA 98101.

Comments should be addressed to: Laurie M. Kral, Air Programs Branch, M/S 629, Region 10, 1200 Sixth Avenue, Seattle, WA 98101.

**FOR FURTHER INFORMATION CONTACT:** Michael J. Schultz, Coordination and Planning Section, M/S 625, Environmental Protection Agency, Region 10, 1200 Sixth Avenue, Seattle, WA 98101, Telephone No. (206) 442-1226, FTS 399-1226.

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## I. Introduction

The information in this notice is divided into two sections entitled "Background" and "Plan Review". The first section outlines the background leading to the development of the Oregon SIP in relation to the Clean Air Act as amended in 1977 (hereafter referred to as the Act). The "Plan Review" portion is divided into two major sub-sections. The first, "General Regulations," discusses regulatory portions of the plan applicable to more than one non-attainment area; e.g., Volatile Organic Compounds (VOC), New Source Review (NSR), Inspection and Maintenance (I/M), etc. The second sub-section, "NON-ATTAINMENT AREA PLANS," provides a description of each pollutant specific plan. Deficiencies, together with proposed corrective actions, are summarized at the end of each topical discussion.

## II. Background

### *A. Revision Process*

The 1977 amendments to the Act require States to make extensive revisions to their State Implementation Plans (SIPs). These revisions fall into three major areas:

(1) Provisions for attainment and maintenance of National Ambient Air Quality Standards (NAAQS) in those areas where air quality standards are being violated (required in Part D of the Act);

(2) Prevention of Significant Deterioration (PSD) plans for protecting those areas with clean air (required in Part C of the Act); and

(3) Certain other general requirements of a statewide SIP (e.g. Section 128—State Boards).

This notice presents the results of EPA's review of plans developed by the State of Oregon Department of Environmental Quality (DEQ) to comply with the requirements of Part D of the Act. A PSD plan, requirements for which may be found in 40 CFR Part 51.24, and general requirements of a SIP having statewide application were also developed by the State and submitted for approval. Proposed rulemaking for these plan revisions will be treated in separate actions at a later date.

The Oregon Part D SIP revision was developed and submitted to EPA to satisfy the requirements of the Act as amended in 1977 and is intended to update the presently approved SIP. Specific requirements for an approvable Part D SIP are described in a General Preamble published in the April 4, 1979, Federal Register (44 FR 20372); supplemented on July 2, 1979 (44 FR 38583), August 28, 1979 (44 FR 50371), September 17, 1979 (44 FR 53761), and November 23, 1979 (44 FR 67182). These requirements will not be restated here. Additional requirements were published in the "EPA/DOT Transportation Planning Guidelines" and the "Transportation SIP Checklist." (These documents are available at the address noted above). General requirements for all SIPs are contained in 40 CFR Part 51.

In accordance with Section 174 of the Act, primary responsibility for preparing carbon monoxide (CO) and ozone ($O_3$) control plans was delegated by the Governor to organizations of local elected officials. The designated organizations are the Metropolitan Service District (MSD) for the Portland non-attainment area, (responsibilities for this area resided with the Columbia Regional Association of Governments until December 31, 1978 when it was abolished and its responsibilities assumed by the MSD); the Mid-Willamette Valley Council of Governments (MWVCG) for the Salem non-attainment area; the Lane Council of Governments (LCOG) for the Eugene-Springfield non-attainment area; and the

Jackson County Board of Commissioners for the Medford-Ashland non-attainment area. As a result of these designations, a description of responsibilities between the various State and local agencies involved in the planning process was developed. Designated lead agencies were generally responsible for the transportation control plan development, while the State in general retained responsibility for stationary source control efforts.

The locally prepared plans were submitted to DEQ and combined with the State-developed portions of the SIP revisions.

One of the more notable aspects of this SIP revision process in Oregon has been the extremely active public participation program. The thrust of this program has centered on three, local, broad-based advisory committees. These committees were jointly appointed by DEQ and local governments in the Portland, Eugene, and Medford area, and served to advise DEQ as well as the local lead agencies on SIP revisions. Because of the relatively non-complex SIP revision requirements for Salem, public participation in this area was handled through advisory groups of the MWVCG.

Activities common to the advisory committees include participation in a clean air workshop sponsored by the Oregon Environmental Council; testifying before the 1979 Oregon Legislature on bills affecting open burning, indirect sources, inspection and maintenance and banking and offsets; preparing citizen involvement brochures; advising and reviewing rules and strategies relating to the 1979 SIP revisions; and testifying before the EQC on the actual proposed SIP revisions.

The 23-member Portland area advisory committee was formed in June 1978, and held 22 major meetings and numerous other sub-committee meetings by June 1, 1979. Accomplishments included development of an interstate working agreement with the Clark County Regional Planning Council (Washington) and evaluation and recommendations on appropriate control levels for particulate sources.

The 25-member Eugene area advisory committee was formed in February 1978, and held 23 meetings through June 1979. Accomplishments included recommendations for appropriate particulate emission standards for industrial sources and indepth studies of road dust sources and control measures.

The 23-member Medford area advisory committee was formed in September 1977 and held over 100 hours of public meetings. Accomplishments included recommendations on a particulate control strategy; modification of local slash burning mixing height criteria; establishment of a daily telephone advisory of air quality data; establishment of voluntary inspection and maintenance program; and adoption of a stringent offset program.

After working closely with EPA Region 10, draft SIP revisions were completed and public hearings held in May 1979. Based on comments received, modifications were made and SIP revisions were adopted by the Oregon EQC on June 8 and June 29. The SIP was officially submitted to EPA on June 20 and 29, 1979. Circumstances surrounding this two-part submission were discussed in two Federal Register notices of plan availability: June 6, 1979 Federal Register (44 FR 39485) and July 26, 1979 Federal Register (44 FR 43756).

*B. Review/Approval Process*

It is important for reviewers of this proposal to understand the overall nature of SIPs and of EPA's review and approval role, with special focus on the Part D requirements of the Act. First, non-attainment designations were specific to pollutants and areas. Therefore, it is possible for the Part D SIP revisions to be adequate for one situation but inadequate for another. It is EPA's policy to treat the separate revisions as severable to the maximum extent possible. As a result, this notice contains a series of proposed actions rather than a single proposal. Thus the review of this proposal and any comments submitted should be equally specific.

EPA's review of Part D SIP revisions may lead to three results:

1. Approval, outright, where the SIP or the portion under consideration meets all requirements;

2. Disapproval where deficiencies are of such magnitude as to significantly interfere with the basic objective; or

3. Approval with conditions, where deficiencies exist, but where the effect of the deficiency is not judged to be significant and where the State is taking steps to correct the deficiency.

In the case of conditional approval, it is EPA's intent that the State proceed expeditiously to correct the noted deficiency. This notice addresses that prospect, and comment is sought on the approach being proposed. First, there is the possibility that the State can complete its corrective actions during this comment period, and in those cases EPA would prefer in its final rulemaking to approve that aspect of the SIP without conditions and without having to repropose. To serve that purpose, this notice defines the deficiences and appropriate corrective action with sufficient detail to facilitate comments now. The second possibility is that the State may require further time to complete its corrective actions; this is more likely where the change is of such substance as to warrant a State public hearing. A third possibility is that the State may not agree to correct a deficiency, in which case that portion of the SIP would be disapproved. Therefore, EPA in its final rulemaking following this comment period will treat noted SIP deficiencies in one of three ways: (1) approval, without condition if the corrective action is complete, or (2) approval with condition where the State is proceeding with the correction but needs additional time, or (3) disapproval.

To ensure the integrity of this approach, EPA is proposing July 1, 1980 (unless otherwise specified), as the outside date by which time all corrections should be adopted by the State and submitted to EPA. Comment is sought on the appropriateness of this date and of the basic approach. Further, it is important for the reviewer to understand the intended purpose of conditional approval. A conditional approval means that the restrictions on new major source construction (June 28, 1979 Federal Register—44 FR 37679) are removed. However, if the State fails to submit the necessary SIP revisions by the scheduled dates, or the revisions are disapproved by EPA, the new source growth restrictions would again go into effect. This reapplication of sanctions would not impact permits granted during the period of conditional approval.

The reader of this document should keep in mind that the Act presented a very complicated set of requirements which had to be met in a relatively short period of time. The Act also specified that many decisions regarding the selection of air pollution control strategies were made at the local governmental level and required considerable public participation. Establishing a process to generate the necessary local governmental and public input to major air quality decisions has been a difficult and time consuming task. Thus while this notice tends to focus on deficiencies in the proposed SIP, EPA feels the State of Oregon and the participating local agencies should be commended for their efforts to date.

III. Plan Review

This section is divided into two major sub-sections. The first, "General Regulations" briefly describes the regulatory portions of the plan

applicable to more than one non-attainment area; e.g., Volatile Organic Compounds, New Source Review, Inspection and Maintenance, etc., and discusses the deficiencies and specifically states which category of action EPA is proposing to take. The second sub-section, "Non-Attainment Area Plans" discusses each area pollutant-specific plan in terms of plan development, emission reduction required, control strategy proposed, deficiencies identified and corrective actions required, and EPA's proposed action. Except for noted conditions on approval, the Oregon Part D SIP revision was found to comply with all requirements, including those contained in Section 172 of the CAA.

*A. General Regulations*

1. *New Source Review (NSR).* OAR 340-20-190 through -197 are new regulations intended to fulfill the New Source Review requirements contained in Part D of the Act. Rules -190 through -195 are the "Special Permit Requirements for Sources Locating in or Near Non-Attainment Areas." Rules -196 and -197 provide DEQ with the option of requiring plant site emission limits on sources located anywhere in the State to ensure that emissions are, in fact, consistent with the control strategies and overall airshed carrying capacity.

These rules have, in general, been found to satisfy the NSR requirements of Part D. However, EPA is requesting that the State revise its regulations to correct certain identified deficiencies. EPA, therefore, proposes to conditionally approve Oregon's NSR regulations contingent upon the State correcting the following deficiencies:

a. *Emission Offsets.* OAR 340-20-192(1) contains an offset requirement but no offset program was adopted by the DEQ. Such a program is needed if offsets are to be employed.

b. *Multiple Sources Under Single Ownership.* OAR 340-20-192(3) must be modified to satisfy the requirement of Section 173(3) of the Act in that a permit to construct or operate a new source in a non-attainment area can be issued if the other sources owned by the same company in that State are in compliance with the Act, not just "with applicable requirements of the adopted State Plan."

2. *Volatile Organic Compounds (VOC).* Section 172(a)(2) and (b)(3) of the Act requires sources of volatile organic compounds (VOC) to install, at a minimum, reasonably available control technology (RACT) in order to reduce emissions of this pollutant. EPA has defined RACT as the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

EPA has developed Control Technology Guidelines (CTG) for the purpose of informing state and local air pollution control agencies of air pollution control techniques available for reducing emissions of VOC from various categories of sources. This information is designed to be useful to both control agencies and industry in defining appropriate RACT requirements for sources within the State.

Along with information, each CTG contains recommendations to the states of what EPA calls the "presumptive norm" for RACT. This general statement of agency policy is based on EPA's current evaluation of the capabilities and problems general to the industry. Where the State finds the presumptive norm applicable to an individual source or group of sources, EPA recommends that the State adopt requirements consistent with the presumptive norm level. The State may, if it chooses, require controls different from those identified in the CTG as long as: (1) documentation is provided that the regulations do, in fact, represent RACT for that source(s); or (2) the emission reduction is not significantly different than (within 5 percent of) the reduction achievable by implementing the presumptive norm.

Ozone attainment strategies, as discussed in the April 4, 1979, General Preamble, must include control of specified VOC sources (i.e., those for which CTGs have been published, prior to January 1, 1978), to the RACT levels. Where simplistic modeling techniques (rollback, the Empirical Kinetic Modeling Approach (EKMA), or other methods less sophisticated than atmospheric dispersion modeling) are employed to demonstrate adequacy of the attainment strategy, control of all sources covered by the CTGs to RACT levels is required. The State of Oregon used EKMA to determine emission reductions needed and is thus required to adopt RACT regulations for the eleven source categories for which CTGs have been published to date. The State is also required to commit to the adoption of additional regulations as future CTGs are published. The next group of sources is presently scheduled to be covered by July 1980.

The Oregon VOC Regulations OAR 340-22-100 through -150, however, fall short of requiring sources to comply with RACT regulations. EPA, therefore, proposes to conditionally approve the VOC regulations contingent upon the State taking corrective action in terms of the preceeding discussion and as implied by the nature of each deficiency:

A. *Gasoline Marketing:* OAR 340-22-100(9) and -110 through -122 needs clarification and revision in several areas.

(1) The definition of delivery vessel -100(9)] must be modified to include the transport of gasoline from terminals to bulk plants.

(2) The 90 percent vapor capture requirement (-110 and -115) must be shown to be equivalent to a vapor tight balancing system. Replacement of the 90 percent rule with an equipment specification rule is recommended.

(3) Conflicting exemptions from requirements for vapor capture contained in -110(20)(c) and -115(5) need to be resolved. Further, exemptions of delivery vessels and storage tanks at gasoline dispensing facilities from vapor capture requirements during filling cannot be approved unless the gasoline dispensing facility involved: (1) receives less than 10,000 gallons of gasoline per month, or (2) the State demonstrates that exempting gasoline facilities receiving up to 240,000 gallons per year represents RACT.

(4) Specific conditions must be identified under which stated exemptions would be granted from capture of vapors during tank truck gasoline loading operations at gasoline terminals (-122(1)). It is EPA's understanding that the State's intent was to restrict this exemption to delivery vessels switching from gasoline to diesel oil.

B. *Cutback Asphalt:* OAR 340-22-125 must contain provisions which prohibit the unrestricted use of solvents in emulsified asphalt. EPA has published a list of emulsified asphalt uses with corresponding maximum solvent contents. This guidance should be used in establishing limits on the addition of solvents to emulsified asphalt.

C. *Surface Coating:* OAR 340-22-140 must clearly indicate that the term "coating line" includes the coater, flash-off area, and dryer. Further, the less restrictive emission requirements permitted for "inert gas process paper coating" must be documented as being RACT.

D. *Degreasers:* OAR 340-22 -145 through -147.

(1) *Cold Cleaners* (-145). The rules need to provide specific requirements for agitated solvents, heated solvents, and solvents with higher vapor pressures.

(2) *Open Top Vapor Degreasers* (-146). An option for powered cover or specific freeboard ratio is not adequate; both must be required as RACT.

(3) *Conveyorized Degreasers* (-147). A major control device must be required for those degreasers with an air/vapor interface greater than two square meters.

E. *Exemption of Methyl Chloroform and Methylene Chloride.* The Oregon regulations include exemptions for methyl chloroform and methylene chloride. The exemption is based on the fact that these compounds are photochemically unreactive and therefore do not play a significant rule in ozone formation. Thus, the Oregon VOC regulation is approvable insofar as this exemption is concerned. However, both compounds may be subject to future regulation, not to meet the $O_3$ national ambient air quality standard (NAAQS), but because of evidence that they may be a direct health hazard. This possibility is stated here to put persons who may desire to take advantage of these exemptions on notice regarding the possibility of future control requirements for these compounds before conversion decisions are made.

(3) *Inspection and Maintenance (I/M).* Inspection and maintenance (I/M) refers to a program whereby motor vehicles receive periodic inspections to assess the efficiency of fuel combustion and functioning of their exhaust emission control systems. Vehicles which have excessive emissions must then undergo mandatory maintenance.

A continuation of the present vehicle I/M program is a key element in both the $O_3$ and CO emission strategies for Portland; I/M is also a high priority alternative for other $O_3$ and CO attainment strategies in Oregon.

I/M for Portland was authorized by the State legislature in 1973. The program was initiated in January 1974 on a voluntary basis and continued as such for 18 months. A centralized, state-operated biennial program became mandatory in mid-1975. With few exceptions, all gasoline powered vehicles must be inspected and meet emission standards if they are to be licensed. No waivers are provided for those automobiles requiring expensive repairs to meet the emission standards.

A key factor in evaluating the adequacy of the Portland I/M program is whether minimum emission reduction requirements will be met. As set forth in a July 17, 1978 memorandum (from Dave Hawkins to Regional Administrators) containing specific criteria for I/M SIP approval, and I/M program must achieve a 25 percent reduction in passenger car emission of both hydrocarbons and CO. This reduction is measured by comparing the levels of emissions projected to December 31, 1987 with and without the I/M program. The basis for this policy is the Act's requirement that a Part D SIP provide for implementation of all reasonably available control measures as expeditiously as practical. At the time of passage of the Clean Air Act Amendments of 1977, several I/M programs were in operation, including mandatory programs in New Jersey and Arizona. Studies of the effectiveness of the maintenance and repairs resulting from I/M showed that programs patterned after those operating in New Jersey and Arizona, when implemented by 1982, will result in emission levels in 1987 that are at least 25% lower than if there were no I/M program. This demonstration of practical operation and effectiveness of I/M forms the basis for the 25% emission reduction as the criterion to determine compliance of the I/M portion with Section 172(b)(2).

The Portland I/M program requires inspection once every two years. Preliminary results from EPA's study of the Portland program indicates biennial inspection frequency provides less emission reduction than an annual program. This finding casts doubts on the ability of the Portland I/M program to achieve a 25 percent emission reduction by 1987. EPA is currently working with the Oregon DEQ to assess the ability of the program to meet this criterion.

EPA therefore is proposing to approve Portland's I/M program on the conditions that the assessment of program effectiveness shows compliance with the 25 percent emission reduction requirement.

Finally, although Oregon has an on-going I/M program it has never formally submitted the authorizing legislation or operating regulations to EPA as required by the Clean Air Act. Therefore, before final action conditionally approving the I/M portion of the Oregon SIP can be taken, the State will have to submit this legal authority to EPA.

4. *Other Regulations.*—a. *Source Test Procedures:* To maintain SIP enforceability, source test procedures for each emission limitation must be included in the SIP, or the SIP must contain specific reference to a properly identified source test method which is submitted for the record along with the SIP. The reference would normally include the title, number (if the method is coded), and the date of the appropriate version of the method(s).

Oregon's SIP does not contain source test procedures but does refer to specific methods on file. Many of these procedures have been approved by EPA. However, the VOC test methods have not been submitted. Thus, EPA is proposing an additional condition on the approval of Oregon VOC rules. Such approval is contingent upon the State submitting approvable VOC source test methods.

Further, the SIP references to specific source test procedures include dates for the methods (as required above). However, EPA feels that once approved, the approval date of this Part D revision will be the date of these sources test procedures. Any significant modification to the procedures, if they are to be federally enforceable, will have to be adopted and submitted to EPA for approval.

b. *Compliance Schedules:* All sources subject to the new Part D emission regulations must have compliance schedules. These schedules are to meet the requirements of 40 CFR Section 51.15 and Section 51.1(q), and should be submitted for approval along with the Part D revisions.

Although the subject SIP revisions contain final compliance dates for sources subject to the Oregon VOC rules (OAR 340-22-100 through -150), required increments of progress were omitted. As a result of this omission, EPA proposes to impose a final condition upon the approval of the Oregon VOC rules (340-22-100 through 340-22-150). Such approval is contingent upon the State submitting compliance schedules for all sources covered by the VOC rules by July 1, 1980. These compliance schedules must contain the necessary increments of progress as required by 40 CFR, Section 51.15. The public participation requirements found in 40 CFR, Section 51.4 are also applicable and must be satisfied prior to adoption of the subject schedules by the State.

c. *Continuity of Regulations:* This proposal would replace measures in the current SIP with the new measures submitted by the State to EPA for approval. Under this proposal, the current emission control regulations applicable to any source would remain in effect until such time as the newly revised regulation becomes effective and the source achieves full compliance with its provisions. This provision applies to all revised SIP regulations, not merely those that are subjected to judicial challenge. Failure of the source to satisfy the requirements of the former regulation would result in appropriate enforcement actions.

d. *Ambient Air Quality Monitoring:* EPA has several concerns with respect to monitoring for ozone and its precursors in the non-attainment areas. However, it is felt that the ongoing formal revisions to ambient air quality monitoring networks and further EPA guidance/requirements on data collection for the 1982 ozone SIP

submittals will adequately address these issues.

*B. Non-Attainment Area Plans*

The non-attainment area plans will be discussed in groups by pollutant. Each discussion will provide a brief description of the area, predicted attainment dates, extensions requested, control measures proposed, and any problems that would interfere with SIP approval.

1. *Extension Requests.*—Under Section 172(a)(2) of the Act, the State has requested an extension of the attainment date for CO and/or $O_3$ in the following areas: Portland (CO and $O_3$, Eugene (CO) and Medford (CO). To document the need for these extensions, the State submitted a demonstration that attainment by 1982 cannot be achieved for these areas despite implementation of all reasonably available control measures. Thus, EPA is proposing to approve these post-1982 attainment date extension requests.

2. *Carbon Monoxide.*—a. *Portland*—(1) *Background.* The Portland CO non-attainment area is the Oregon portion of the Portland, Oregon-Vancouver, Washington AQMA non-attainment area. Population of Portland is in excess of 200,000. Four different monitoring sites have shown numerous violations during each year of operation (earliest site dates back to 1970). A screenline computer modeling technique indicates that much of the central business district, adjacent areas on the east side of the Willamette River, and additional heavily trafficked corridors are now in violation of the standard. Although violations are widespread throughout the area, the frequency of exceeding the 8-hour standard has been reduced significantly since 1971. The one-hour standard has not been exceeded at any site since 1971.

This problem has been attributed almost entirely to emissions from transportation sources. The emission inventory for 1977 shows a total of 779,000 tons per year (tpy) of CO being emitted, of which 97 percent originates from motor vehicles.

The designated lead agency for development of a CO plan is the Metropolitan Service District (MSD). Former Governor Straub originally designated the Columbia Regional Association of Governments as lead agency. However, redesignation to a reorganized MSD was made after a voter approved May 23, 1978 ballot measure abolished the Columbia Regional Association of Governments. The MSD has been working in close cooperation with DEQ on the CO plan revision.

(2) *Emission Reduction Required.* Computer modeling predicts that by the end of 1982, only a few streets in the central business district and one street in a suburb southwest of Portland will be violating the 8-hour standard. By the end of 1987, all streets are predicted to be in compliance.

Since attainment by the statutory December 31, 1982 date is not projected, a formal request for a post-1982 attainment date has been made by Oregon pursuant to Section 172(a)(2) of the Act.

A design value of 17.4 mg/m$^3$ was used to determine the emission reduction required. This value was derived from measured ambient air quality data.

(3) *Control Strategy.* In light of the dominant motor vehicle contribution to the CO non-attainment problem, the control strategy focuses on transportation measures. It should be noted that measures designed to reduce vehicle emissions work in one of two ways: (a) by reducing vehicle trips and miles traveled; i.e., improved mass transit carpooling, etc., or (b) by reducing the emissions from individual vehicles; i.e., inspection and maintenance, traffic flow improvements, etc. The Federal Motor Vehicle Control Program (FMVCP) falls into the latter category. Other control measures identified in the Portland CO plan fall into both of the above categories.

Measures already implemented, and, in some cases scheduled for further improvements over the near term, include:

a. Inspection and maintenance (see preceding discussion on this topic).
b. Improve public transit.
c. Exclusive bus and carpool lanes.
d. Areawide carpool programs.
e. Long range transit improvements.
f. Parking controls.
g. Park and ride lots.
h. Pedestrian malls.
i. Employer programs to encourage carpooling and vanpooling.
j. Traffic flow improvements.
k. Bicycle program.
l. Urban development policies to reduce vehicle miles travel (VMT).

Additional measures considered high priority for obtaining further emission reductions are listed below:

(1) Inspection and maintenance on annual basis.
(2) Additional public transit improvements.
(3) Expanded carpool programs.
(4) Additional long-range transit improvements.
(5) Parking restrictions.
(6) Additional park and ride lots.
(7) Additional employer programs to encourage carpooling, vanpooling, mass transit, etc.
(8) Traffic flow improvements.

(4) *Deficiencies/Conditions.* The commitments to implement the following measures are inadequate. EPA is proposing to approve the Portland CO attainment plan on the condition that the following measures are taken:

1. Beaverton Park and Ride: The inclusion of a project in the Annual Element of the Transportation Improvement Program is not an adequate commitment. Before the final approval of the SIP, EPA needs a letter from Oregon Department of Transportation (ODOT) indicating a commitment to fund the project and a schedule for start of construction.

2. Expanded Bus Service on I-5 Corridor: The submission does not contain an adequate description of this project. Before the final approval of the SIP, EPA needs a letter from the transit authority describing the project, a schedule for implementation, and a funding commitment.

3. Traffic Flow Improvements: The SIP does not contain a detailed list of traffic flow improvements which will improve air quality. Before final approval of the SIP, ODOT must identify specific projects and commit to their implementation.

4. Carpool Project: The SIP does not contain a commitment to fund this project after June, 1980. Before final approval, a letter containing a commitment to fund this project from the appropriate agency is necessary.

The emissions inventory should be revised to include emissions from parking activities (parking lots and on-street parking). EPA expects that this will be completed by July 1980 along with the alternatives analysis.

b. *Eugene-Springfield AQMA*—(1) *Background.* The non-attainment area boundaries are the same as those for the air quality program in Eugene-Springfield as it relates to both stationary source and transportation planning. Population of the area is substantially less than 200,000.

The lead agency responsible for development of a CO plan is the Lane Council of Governments, designated by former Governor Straub in accordance with requirements of Section 174 of the Act.

Violations of the 8-hour CO standard have been recorded every year since the only monitor in the area was installed in Eugene in mid-1975. Two (2) violations were measured in 1975, eleven (11) in 1976, seven (7) in 1977 and two (2) in 1978.

This air quality problem can be attributed almost solely to motor vehicle emissions. The 1977 emissions inventory (EI) shows that motor vehicles account for 58,000 tpy of CO emissions or approximately 95 percent of the total EI. Other sources of CO were calculated to have a negligible impact on air quality.

(2) *Emission Reduction Required.* A CO forecast model was used to determine the extent of the non-attainment problem assuming "worst case" meteorological conditions. Approximately 10 kilometers of roadway, located primarily in the Eugene Central Business District, were identifed as having had the potential to violate NAAQS in 1977. This is predicted to be reduced to two kilometers of roadway by 1983 and attainment by 1985. Thus, only marginal non-attainment is predicted by the end of 1982. By taking credit for emission reductions from the FMVCP and emission reduction strategies already implemented, total CO emissions in the metropolitan area are expected to decrease 18 percent between 1977 and 1983. Reductions between 1977 and 1987 are predicted to be 32 percent. Although vehicle miles traveled will be increasing during this period, these increases will be more than offset by the control measures so that attainment 1985 is likely.

Because of this projected attainment date, a formal request for an extension (attainment later than 1982) was made pursuant to Section 172(a)(2) of the Act.

A design value of 12.7 mg/m$^3$ was used to determine the emission reductions required. This value was derived from measured ambient air quality data.

(3) *Control Strategy.* As the non-attainment problem is almost entirely motor vehicular in origin, the control strategy is restricted to transportation measures. It should be noted that measures designed to reduce motor vehicle CO emission work in one of two ways: (a) by reducing vehicle usage; i.e., improved mass transit, carpooling, etc., or (b) by reducing the emissions from individual vehicles; i.e., inspection and maintenance, traffic flow improvements, etc. The FMVCP, an integral part of the control strategy, falls in the latter category of measures. Additional improvements are expected from measures which encompass both of the above categories.

Emission reduction strategies already implemented include the following:

(1) Traffic engineering improvements.
(2) Bikeways.
(3) Transit development and improvement.
(4) Pedestrian mall.
(5) Staggered work hours.
(6) Traffic flow improvement.

If the July 1980 alternatives analysis does not result in predicted attainment by the end of 1982, additional measures will be assessed so as to attain the NAAQS as expeditiously as practicable.

(4) *Deficiencies/Conditions.* No deficiencies serious enough to warrant conditioning the approval of the CO control strategy were identified. However, the emissions inventory should be revised to include emissions from parking activities (parking lots and on-street parking). EPA expects that this will be completed by July 1980 along with the alternatives analysis.

c. *Salem.* (1) *Background.* The official CO non-attainment designation for Salem included that area within the city limits. However, MWVCOG, the designated lead agency, expanded the "official" non-attainment area to include that area described by the Salem Area Transportation Study (SATS) boundaries. This larger area, 124 square miles versus 32 square miles for the "official non-attainment area," provides more appropriate coverage of the demographic and geographic Salem urban area and thus represents a more reasonable study area. Neither area, however, exceeds the 200,000 population cutoff used to define the difference between urban and rural non-attainment areas.

As defined by air quality data, the non-attainment problem is relatively marginal. A single monitor located in downtown Salem annually recorded no more than six violations of the 10 mg/m$^3$ 8-hour standard during the four year period of 1974 through 1977.

For all practical purposes, the entire contribution to the CO non-attainment problem is from motor vehicle emissions. The emission inventory shows that 52,250 tpy of CO originated from mobile sources (over 99 percent) while only 196 tons per year were attributed to stationary (area) sources.

(2) *Emissions Reduction Required.* Computer modeling shows that as of base year 1977, 2.2 miles of roadway in the urban area were violating the 8-hour CO standard. By the end of 1982, marginal compliance is predicted from emission reductions to be obtained from the FMVCP. This reduction is expected to be 12,000 tpy.

A design value of 11.4 mg/m$^3$ was used to determine the emission reductions required. This value was derived from measured ambient air quality data.

(3) *Control Strategy.* Because of the dominant role of motor vehicular emissions, the CO control strategy is limited to transportation measures. In fact, the attainment plan takes credit for only the FMVCP in demonstrating attainment by the end of 1982.

However, 9 of the 14 EPA recommended reasonably available control measures (RACMs) are either already implemented or committed for implementation. These measures, listed below, have not been accounted for in the control strategy and should result in measurable further improvement in CO levels:

(1) Carpool program.
(2) Express bus/park and ride program.
(3) Bicycle plan.
(4) Transit fleet expansion.
(5) Private car restrictions.
(6) On-street parking limitations.
(7) Staggered work hours.
(8) Pedestrian malls.
(9) Traffic flow improvements.

(4) *Deficiencies/Conditions.* (1) The model needs to be adjusted for apparent errors in the VMT growth rate curve. Vehicle miles travelled (VMT) growth rate was derived from population projections. However, the 1977 baseline population figures were found to be in error (too high). This resulted in identifying an emission reduction less than that actually needed. Consequences of these errors have not been fully assessed by EPA, but it appears that projected concentrations for the end of 1982 are now over the standard. If unaccounted for transportation control planning (TCP) measures will not show attainment, a reqest for an extension of the 1982 attainment deadline may be needed.

Therefore, EPA is proposing to approve this Salem CO plan on the condition that appropriate modeling corrections are made.

(2) The emission inventory should be revised to include emissions from parking activities (parking lots and on-street parking). EPA does not consider the omission of these activities from the emission inventory serious enough to warrant a condition on the approval of this SIP revision. However, we do expect that these additions to the emission inventory will be completed by July 1980 along with the alternative analysis.

d. *Medford-Ashland.* (1) *Background.* The non-attainment area is defined by the AQMA boundaries which encompass the towns of Medford, Ashland, White City, and Eagle Point. Ambient air quality data from this area is limited but, nonetheless, conclusive. A single CO monitor located in downtown Medford has provided data only since 1977. However, numerous violations of the 8-hour standard have been recorded each year with 8-hour concentrations as

high as 22 mg/m³. The one-hour standard has never been exceeded. Modeling has shown that an estimated 20 miles of roadway violated the 8-hour standard in 1977.

The base year 1977 Co emission inventory for the AQMA shows that approximately 83 percent of the 59,500 tpy inventoried originated from motor vehicles.

Lead agency for development of CO attainment plan is the Jackson County Board of Commissioners. This group has worked closely with the DEQ and the very active citizens advisory committee to develop attainment plans for this area.

(2) *Emission Reduction Required.* Modeling has shown that an estimated 72 percent decrease in CO emission would be required to attain the 8-hour standard. However, due largely to the low population of this area (Medford, the largest town, has a 1970 census population of 28,500) there has been no mechanism established by which this reduction can be achieved. Presently, there is no transportation plan and no traditional transportation planning process. Consequently, given the present set of conditions, the 20 miles of non-attainment roadway estimated for 1977 is predicted to only decrease to 16 miles by 1982 with 12 miles still violating standards by 1987.

A design value of 19.8 mg/m³ was used to determine the emission reductions required. This value was derived from measured ambient air quality data.

(3) *Control Strategy.* Since motor vehicle emissions are the prime culprit for the non-attainment problem, the control strategy needs to focus on transportation measures. However, the only existing control measure for this area is the FMVCP, thus accounting for the above predictions of continued non-attainment. As a result, an attainment date extension request was submitted pursuant to Section 172(a)(2) of the Act. In light of this air quality problem, Jackson County has committed to evaluate reasonably available control measures by July 30, 1980, and develop and officially submit to EPA a control strategy under the Governor's signature by June 30, 1982. This strategy is to contain those measures necessary to attain the CO standard as expeditiously as practicable but no later than December 31, 1987. Those measures which appear most likely to be adopted are:

(a) I/M.

(b) Parking and traffic circulation plan.

(c) Improved bicycle and transportation networks.

(d) Disincentives to private auto use.

(e) Ban on open burning.

(4) *Deficiencies/Conditions.* No deficiencies serious enough to warrant conditioning the approval of the control strategy were identified. However, the emissions inventory should be revised to include emissions from parking activities (parking lots and on-street parking). EPA expects that this will be completed by July 1980 along with the alternatives analysis.

2. *Ozone.*—Each of the ozone ($O_3$) non-attainment areas is also non-attainment for CO. However, unlike CO, ambient $O_3$ concentrations are generally not related to direct emissions to the atmosphere but are formed by complex reactions between VOC and oxides of nitrogen in the presence of sunlight. Attainment strategies focus primarily on reducing hydrocarbon emissions and rely on both mobile source control programs and emissions reductions from stationary sources. Mobile source plans were discussed in the CO presentation and stationary source hydrocarbon controls were outlined in the VOC section. Further, the non-attainment area boundaries and designated lead agencies for $O_3$ are the same as for each corresponding CO plan. Thus, the following discussion of area specific $O_3$ plan will be brief.

a. *Portland*—(1) *Background.* Four monitors in the area, installed between 1974 and 1976, have shown the 0.12 ppm $O_3$ standard to be exceeded each year, with the highest concentration for any year being 0.23 ppm (451 μg/m³) in 1977. The 1977 base year emission inventory shows a total of 111,000 tons of VOC being emitted of which 65 percent are attributed to mobile sources.

(2) *Emissions Reduction Required.* The EPA city specific isopleth version of EKMA was used to identify needed emission reductions. In order to attain the 0.12 ppm standard, a 50 percent reduction in 1977 VOC emissions must be obtained. However, through implementation of all RACMs, only a 37 percent reduction is projected by the end of 1982. Thus, the State has requested, pursuant to Section 172(a)(2) of the Act, a post-1982 attainment date for $O_3$.

A design value of 0.183 ppm (365μg/m³) was used to determine the emission reductions required. This value was derived from measured ambient air quality data.

(3) *Control Strategy*

See the VOC discussion under *General Regulations* and the Portland CO control strategy.

(4) *Deficiencies/Conditions.* (a) I/M Program—As discussed earlier, EPA is proposing to approve Portland's I/M program on the conditions that the assessment of program effectiveness shows compliance with the 25 percent emission reduction requirement.

(b) Ambient Air Quality Monitoring—No deficiencies serious enough to warrant conditioning the approval of the $O_3$ control strategy were identified (subject discussed in greater detail under *"other regulations"*).

(c) The comments regarding commitments to implementation of specific measures for Portland CO apply to the ozone portion of the plan.

b. *Eugene-Springfield AQMA.* A reassessment of air quality data after the federal standard was raised from 160 μg/m³ (0.08 ppm) to 235 μg/m³ (0.12 ppm) revealed no recorded violations of the new standard in the Eugene-Springfield AQMA. Thus, on March 2, 1979, the State requested that the area be redesignated from "non-attainment" to "attainment." EPA redesignated this area to "attainment/unclassifiable" in the January 10, 1980 Federal Register 45 FR 2044.

c. *Salem.*— (1) *Background.* A single monitor operating in the area since 1975 has revealed a marginal non-attainment problem. No more than three days with violations of the standard have been noted for each of the past four years (1975 through 1978). During this four year period, the highest value recorded was 0.167 ppm (328 μg/m³ versus 0.12 ppm or 235 μg/m³ for the standard), occurring in 1977. The 1977 base year emission inventory shows a total of 8,210 tons of VOC being emitted of which 89 percent are attributed to mobile sources.

Salem's $O_3$ concentrations appear to be significantly impacted by emissions from Portland, a major urban area located approximately 40 miles north of Salem. Since Salem is technically defined as a "rural" (less than 200,000 population) $O_3$ non-attainment area and is impacted by emissions from an urban area, EPA's rural $O_3$ policy may be applied. Rather than requiring a specific control strategy for each rural non-attainment area, this rural policy requires RACT on VOC sources, lowest achievable emission rate (LAER) for new major stationary sources, and an approvable control strategy for major urban areas (Portland). These requirements are met for Salem in the subject Part D SIP revision except as noted in Deficiencies-Conditions on the VOC rules.

(2) *Emission Reduction Required.* The EPA standard ispleth EKMA model was used and predicted that a 12 percent or 985 tpy reduction in VOC emissions is needed to reduce base year design

concentrations to under the 0.12 ppm standard.

A design value of 0.151 ppm (305 $\mu g/m^3$ was used to determine the emission reductions required. This value was derived from measured ambient air quality data.

(3) *Control Strategy.* Stationary source VOC regulations and the FMVCP are predicted to result in 27 percent or 2,243 tpy reduction by the end of 1982. Since only a 985 tpy reduction has been shown as being necessary for attaining the standard, the projected reduction is more than that needed to bring the area into attainment.

(4) *Deficiencies/Conditions.* No deficiencies serious enough to warrant conditioning the approval of the $O_3$ control strategy were noted. However, it is recommended that the control strategy identify reliance on the rural $O_3$ policy. The alternative involves revising the present modeling approach to adequately account for the influence of emissions from sources in Portland. EPA anticipates that this revision will be completed along with the alternatives analysis which is due to be submitted in July 1980.

d. *Medford AQMA*—(1) *Background.* A single monitor installed in 1976 has shown up to seven days with violations of the federal standard for each of three consecutive years (1976 through 1978). The highest one hour concentration recorded during this period was 0.18 ppm (384 $\mu g/m^3$). Base year (1977) emissions inventory figures show a total of 13,100 tons of VOC per year being emitted with approximately 44 percent attributed to motor vehicles.

(2) *Emission Reductions Required.* The EPA approved EKMA model identifies the need for a 13 percent or 1700 tpy reduction in total VOC emissions in order to meet the Federal standard.

A design value of 0.15 ppm (294 $\mu g/m^3$) was used to determine the emission reductions required. This value was derived from measured ambient air quality data.

(3) *Control Strategy.* Modeling efforts predict reductions in VOC emissions between 1977–1982 from the FMVCP, the stationary source VOC rules, and the particulate control strategy will total approximately 2200 tpy. This amounts to a 17 percent decrease, of which 12 percent originates from the FMVCP, 4 percent from stationary source VOC control, and 1 percent from special particulate rules. This projected decrease is substantially more than that shown to be needed for attainment.

Although Meford qualified, technically, as a "rural" $O_3$ non-attainment area (concept discussed under Salem, *Background*), EPA is strongly supportive of the ongoing development of a specific attainment strategy for this area. Unlike Salem, whose $O_3$ problem appears to be significantly influenced by emissions from Portland, Medford's $O_3$ concentrations do not appear to be measurably impacted by emissions from a major urban area. Thus, reliance on EPA's rural $O_3$ policy, as is recommended for Salem, is inappropriate for Medford.

(4) *Deficiencies/Conditions.* No deficiencies serious enough to warrant conditioning the approval of the $O_3$ control strategy were noted. However, as discussed earlier under "other regulations," further guidance and requirements relating to oxides of nitrogen ($NO_x$) and hydrocarbon monitoring is forthcoming.

4. *Total Suspended Particulate (TSP).*—Although Portland, Eugene-Springfield, and Medford were designated non-attainment for TSP, no Part D plans are due at this time. This is attributable to (a) recent redesignations of the Medford and Eugene-Springfield areas and (b) 18-month extensions for submittal of secondary standard attainment plans. Extensions until July 1980 were formally requested by the State on March 2, 1979, and were granted in the July 30, 1979 Federal Register (44 FR 44497) pursuant to 40 CFR, Section 51.31.

In addition, EPA is proposing action at this time on revised rules for stationary sources of TSP in Medford.

a. *Portland.* The Portland portion of the Portland, Oregon—Vancouver, Washington AQMA was designated non-attainment for secondary standards only. Thus, with the above 18-month extension, no plan is due until July 1, 1980.

b. *Eugene-Springfield.* The area was initially designated non-attainment for both primary and secondary standards. However, only one monitor in the network (Springfield City Shops site) showed non-attainment of the primary standards. The representativeness of data from this monitor has been a subject of controversy for several years. It has been the State's recommendation that data from this monitor should not be considered in making attainment/non-attainment determinations because its location is such that measured TSP levels reflect the air quality of only a very small area surrounding the monitor. Justification provided by the State for discounting this data has recently been accepted by EPA Region 10. A notice of proposed rulemaking to redesignate the area from non-attainment for primary standards to non-attainment for secondary standards only was published in the Federal Register on October 19, 1979 (44 FR 60341); additional details surrounding the redesignation can also be found in that publication. The above redesignation would postpone the due date for the SIP revision until July 1, 1980.

c. *Medford-Ashland.* The Medford-Ashland AQMA was initially designated non-attainment for secondary standards only. However, subsequent TSP data revealed an air quality problem which was found to be much worse than at first recognized; more recent concentrations well above the primary standard have been recorded. As a result, the area was proposed for redesignation to non-attainment of primary standards in the October 19, 1979 Federal Register (44 FR 60341). Since the redesignation involves changing to a more restrictive mode, EPA has proposed that the State be given nine months from the date of final action of this proposal to submit a primary standard non-attainment strategy. Additional details surrounding the redesignation can be found in October 19, 1979 Federal Register notice.

In addition, EPA is proposing to conditionally approve revised TSP rules for stationary sources. These rules were submitted by Oregon, as representing at least RACT.

*Conditions.* These regulations are being proposed for approval on the condition that the following deficiencies are corrected:

(1) Rule 340–30–035: Specific conditions under which the Director may lift the ban on operation of wigwam waste burners must be provided.

(2) Rules 340–30–015, –030, and –040: Annual averaging times for emissions regulations make compliance determinations must be and enforcement extremely difficult. Compliance determinations must be based on the results of individual source tests conducted over a period not to exceed one week.

Note.—Interested parties are invited to comment on all aspects of the approvability of the Oregon SIP. In particular, comments are requested on the appropriateness of the findings on issues discussed above, the suggested corrective actions, and the approvability of the SIP with respect to the applicable requirements.

Comments should be submitted, preferably in triplicate, to the address listed in the front of this notice. Public comments received by (30 days following publication) will be considered in EPA's final decision in the SIP.

As further described in two earlier notices published in 44 FR 39485 (July 6, 1979), EPA is providing a second comment period extending for thirty (30) days after publication of this Notice of Proposed Rulemaking. The common due date established for the first period of public comment on the Oregon Implementation Plan submittals was August 28, 1979. In light of the length of this first comment period and the impact of the stationary source growth sanctions imposed on the State since July 1, 1979 pursuant to Section 110(a)(2)(I) of the Act, EPA feels that provision for a second comment period of thirty (30) days rather than the usual sixty (60) days is justified.

All comments received will be available for inspection at the Region 10 Office, 1200 Sixth Avenue, Seattle, Washington, 98101.

Under Executive Order 12044, EPA is required to judge whether a regulation is "significant" and therefore subject to the procedural requirements of the Order or whether it may follow other specialized development procedures. I have reviewed this notice and determined that it is a specialized regulation not subject to the procedural requirements of Executive Order 12044.

This notice of proposed rulemaking is issued under the authority of Section 110 of the Act, as amended.

(Sections 110(a) and 172 of the Act (42 U.S.C. 7410(a) and 7502))

Dated: January 7, 1980.

**Donald P. Dubois,**

*Regional Administrator.*

[FR Doc. 80-1638 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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**40 CFR Part 180**

**[PP 5F1616/P121; FRL 1395-5]**

## Tolerances and Exemptions From Tolerances for Pesticide Chemicals in or on Raw Agricultural Commodities; Proposed Tolerances for the Pesticide Chemical Methomyl (FRL 1395-5)

**AGENCY:** Office of Pesticide Programs, Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** This notice proposes that tolerances be established for residues of the insecticide methomyl on tomatoes at 1 part per million (ppm) and peppers at 2 ppm. The proposal was submitted by E.I. du Pont de Nemours & Co., Inc. This amendment would establish maximum permissible levels for residues of methomyl on tomatoes and peppers.

**EFFECTIVE DATE:** Comments must be received on or before February 20, 1980.

**ADDRESS:** Address comments to: Mr. Frank Sanders, Product Manager (PM) 12, Room E-335, Registration Division (TS-767), Office of Pesticide Programs, EPA, 401 M Street, SW, Washington, DC 20460 (202/426-2635).

**FOR FURTHER INFORMATION CONTACT:** Mr. Frank Sanders at the above address (202/426-2635).

**SUPPLEMENTARY INFORMATION:** On May 8, 1975, notice was given (40 FR 20129) that E.I. du Pont de Nemours & Co., Wilmington, DE 19898, had filed pesticide petition (PP 5F1616) with the EPA. This petition proposed that 40 CFR 180.253 be amended to establish tolerances for residues of the insecticide methomyl (*S*-methyl *N*-[(methylcarbamoyl)oxy] thioacetimidate) in or on the raw agricultural commodities tomatoes and peppers at 1 ppm. No comments were received in response to this notice of filing.

Subsequently, the petitioner amended the petition by increasing the proposed tolerance on peppers from 1 ppm to 2 ppm. Because of the potential increase in exposure of humans to residues as a result of the higher tolerance. the tolerance is being proposed at this time to provide an opportunity for public comment.

The data submitted in the petition and other relevant material have been evaluated. The toxicological data considered in support of the proposed tolerances included a two-year rat and a two-year dog feeding study with a no-observed-effect level (NOEL) of 100 ppm each (5.0 milligrams (mg)/kilogram (kg) of body weight (bw)/day and 2.5 mg/kg bw/day, respectively); a three-generation rat reproduction study with an NOEL of 100 ppm (5.0 mg/kg bw/day); a hen delayed neurotoxicity study (with atropine), which was negative at 200 mg/kg bw; a hen delayed neurotoxicity study (without atropine), which was negative at 28 mg/kg bw; a rat study which was negative for teratogenicity at 400 ppm (highest level tested) and negative for fetotoxicity at 100 ppm; a 79-day rat feeding study which was negative for cholinesterase-inhibition at 20 mg/kg bw/day; and mutagenicity studies (negative) for four microbial assay systems.

Based on the two-year dog feeding study with a 2.5 mg/kg bw/day NOEL and using a safety factor of 100, the acceptable daily intake (ADI) for man is 0.025 mg/kg bw/day. The theoretical maximum residue contribution (TMRC) in the human diet from the previously established tolerances and the proposed tolerances does not exceed the ADI.

Desirable data that are lacking from the petitions are a (second) mouse oncogenicity study and a lactating goat metabolism study. In letters of April 11, 1978, and April 20, 1979, the petitioner indicated that these studies are underway and is expected to be completed in late 1980. The requirement for further mutagenicity studies is deferred until the Agency determines the kinds and amounts of data needed.

The metabolism of methomyl in rats and plants is adequately understood, and an adequate analytical method (gas chromatography using a microcoulometric detector) is available for enforcement purposes. No actions are currently pending against continued registration of methomyl, nor are there any other relevant considerations involved in establishing the proposed tolerances.

The pesticide is considered useful for the purpose for which tolerances are sought, and it is concluded that the tolerances of 1 ppm on tomatoes and 2 ppm on peppers established by amending 40 CFR 180.253 will protect the public health. It is proposed therefore, that tolerances be established as set forth below.

Any person who has registered or submitted an application for the registration of a pesticide, under the Federal Insecticide, Fungicide, and Rodenticide Act, which contains any of the ingredients listed herein, may request on or before February 20, 1980 that this rulemaking proposal be referred to an advisory committee in accordance with section 408(e) of the Federal Food, Drug, and Cosmetic Act.

Interested persons are invited to submit written comments on the proposed regulation. The comments must bear a notation indicating both the subject and the petition/document control number, "PP 5F1616/P121". All written comments filed in response to this notice of proposed rulemaking will be available for public inspection in the office of PM 12, Room 335, East Tower, from 8:30 a.m. to 4 p.m. Monday through Friday.

Under Executive Order 12044, EPA is required to judge whether a regulation is "significant" and therefore subject to the procedural requirements of the Order or whether it may follow other specialized development procedures. EPA labels these other regulations "specialized". This proposed rule has been reviewed, and it has been determined that it is a specialized regulation not subject to the procedural requirements of Executive Order 12044.

(Sec. 408(e) of the Federal Food, Drug, and Cosmetic Act [21 U.S.C. 346a(e)])

Dated: January 9, 1980.

Douglas D. Campt,

*Diretor, Registration Division.*

It is proposed that Part 180, subpart C, section 180.253 be amended by alphabetically inserting peppers at 2 ppm and tomatoes at 1 ppm in the table to read as follows:

§ 180.253 Methomyl; tolerances for residues.

* * * * *

| Commodity: | Parts per million |
|---|---|
| * * * | * * * |
| Peppers | 2 |
| * * * | * * * |
| Tomatoes | 1 |
| * * * | * * * |

[FR Doc. 80-1642 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 73

[Docket No. BC 80-5; RM-3449]

### TV Assignment to LaGrande, Oreg.

**AGENCY:** Federal Communications Commission.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** Action taken herein proposes the reservation of television Channel 13 (KTVR) for noncommercial educational use and the deletion of the reservation on Channel *16, LaGrande, Oregon. The proposed reservation would reflect the use of the channel by the Oregon State Board of Higher Education for its satellite station, KTVR-TV, and preserve its availability for noncommercial educational use.

**DATES:** Comments must be filed on or before March 7, 1980, and reply comments must be filed on or before March 27, 1980.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Ira H. Smart, or Mark N. Lipp, Broadcast Bureau, (202) 632-9660.

**SUPPLEMENTARY INFORMATION:**

Adopted: January 9, 1980.

Released: January 16, 1980.

By the Chief, Policy and Rules Division.

1. The Commission has before it a petition [1] filed on June 18, 1979, by the Oregon State Board of Higher Education ("petitioner") acting on behalf of the Oregon Educational and Public Broadcasting Service, requesting the reservation of Channel 13, LaGrande, Oregon, for non-commercial educational use. No comments were filed in response to the petition.

2. LaGrande, Oregon, is a community of 9,645 [2] population. It is located in Union County, Oregon, in the northeastern part of the State, and it is the home of Eastern Oregon College. Television Channels 13 and *16 are assigned to LaGrande, Oregon. At present Channel 13 is operated primarily as a satellite of the affiliated Portland, Oregon, noncommercial station, KOAP-TV. Petitioner states that KTVR also carries programming from its Corvallis and Salem educational stations, KOAC-TV and KVDO-TV, respectively.

3. Petitioner states that the reservation of Channel 13 for non-commercial educational use would reflect its current use as well as provide the necessary assurances to warrant the investment of time and resources to make KTVR-TV the full fledged educational operation envisioned by the 1965 State plan. This plan calls for a La Grande facility with studio and production facilities operating in conjunction with Eastern Oregon College; the facility would also provide material for broadcast over the Portland and Corvallis stations.

4. Petitioner has made a showing from which we can conclude that the consideration of this proposed reservation would be in the public interest. Since the reservation of Channel 13 would leave LaGrande without a commercial channel, we also shall propose removing the reservation on Channel 16 and we seek comments on both proposals. Accordingly, we propose to consider the following revision of the Television Table of Assignments (§ 73,606(b) of the Rules) with respect to the community listed below:

| City | Channel No. | |
|---|---|---|
| | Present | Proposed |
| LaGrande, Oregon | 13+, *16 | *13+, 16 |

5. The Commission's authority to institute rule making proceedings, showings required, cut-off procedures, and filing requirements are contained in the attached Appendix and are incorporated by reference herein.

Note.—A showing of continuing interest is required by paragraph 2 of the Appendix before a channel will be assigned.

6. Interested parties may file comments on or before March 7, 1980, and reply comments on or before March 27, 1980.

7. For further information concerning this proceeding, contact Ira H. Smart (202) 632-9660 or Mark N. Lipp, Broadcast Bureau, (202) 632-7792. However, members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel assignments. An *ex parte* contact is a message (spoken or written) concerning the merits of a pending rule making other than comments officially filed at the Commission or oral presentation required by the Commission.

Federal Communications Commission.

Henry L. Baumann,

*Chief, Policy and Rules Division, Broadcast Bureau.*

Appendix

1. Pursuant to authority found in Section 4(i), 5(d)(1), 303 (g) and (r), and 307(b) of the Communications Act of 1934, as amended, and Section 0.281(b)(6) of the Commission's Rules, IT IS PROPOSED TO AMEND the FM Table of Assignments, Section 73.606(b) of the Commission's Rules and Regulations, as set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached.

2. *Showings required.* Comments are invited on the proposal(s) discussed in the Notice of Proposed Rule Making to which this Appendix is attached. Proponent(s) will be expected to answer whatever questions are presented in initial comments. The proponent of a proposed assignment is also expected to file comments even if it only resubmits or incorporates by reference its former pleadings. It should also restate its present intention to apply for the channel if it is assigned, and, if authorized, to build the station promptly. Failure to file may lead to denial of the request.

3. *Cut-off procedures.* The following procedures will govern the consideration of filings in this proceeding.

(a) Counterproposals advanced in this proceeding itself will be considered, if advanced in initial comments, so that parties may comment on them in reply comments. They will not considered if advanced in reply comments. (See § 1.420(d) of Commission Rules.)

(b) With respect to petitions for rule making which conflict with the proposal(s) in this Notice, they will be considered as comments in the proceeding, and Public Notice to this effect will be given as long as they are filed before the date for filing initial comments herein. If they are filed later than that, they will not be considered in connection with the decision in this docket.

4. *Comments and reply comments; service.* Pursuant to applicable procedures set out in §§ 1.415 and 1.420 of the Commission's Rules and Regulations, interested parties may file comments and reply comments on or before

[1] Public Notice of the filing of the petition was given on August 17, 1979, Report No. 1188.

[2] All population data are taken from the 1970 U.S. Census.

the dates set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached. All submissions by parties to this proceeding or persons acting on behalf of such parties must be made in written comments, reply comments, or other appropriate pleadings. Comments shall be served on the petitioner by the person filing the comments. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. Such comments and reply comments shall be accompanied by a certificate of service. (See § 1.420 (a), (b) and (c) of the Commission Rules.)

5. *Number of copies.* In accordance with the provisions of Section 1.420 of the Commission's Rules and Regulations, an original and four copies of all comments, reply comments, pleadings, briefs, or other documents shall be furnished the Commission.

6. *Public inspection of filings.* All filings made in this proceeding will be available for examination by interested parties during regular business hours in the Commission's Public Reference Room at its headquarters, 1919 M Street, N.W., Washington, D.C.

[FR Doc. 80-1678 Filed 1-18-80; 8:45 am]
BILLING CODE 6712-01-M

## 47 CFR Part 73

**[BC Docket No. 80-2; RM 3515]**

## FM Assignment to Bloomfield, Iowa

**AGENCY:** Federal Communications Commision.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** Action taken herein proposes the assignment of a first Class A FM channel to Bloomfield, Iowa, in response to a petition filed by Robert L. McDavid. The proposed channel could provide a first local aural broadcast service to Bloomfield.

**DATES:** Comments must be filed on or before March 7, 1980, and reply comments must be filed on or before March 27, 1980.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792.

**SUPPLEMENTARY INFORMATION:**

Adopted: January 8, 1980.

Released: January 16, 1980.

By the Chief, Policy and Rules Division.

1. *Petitioner, Proposal, Comments.* (a) A petition for rulemaking [1] was filed by Robert L. McDavid ("petitioner"), proposing the assignment of FM Channel 292A to Bloomfield, Iowa, as that community's first FM assignment.

(b) The channel assignment can be made in conformity with the minimum distance separation requirements.

(c) Petitioner states he will apply for the channel, if assigned.

2. *Community Data.* (a) *Location.* Bloomfield, seat of Davis County, is located approximately 74 kilometers (46 miles) north of Kirksville, Missouri, and approximately 32 kilometers (20 miles) south of Ottumwa, Iowa.

(b) *Population.* Bloomfield—2,817;[2] Davis County—8,207.

(c) *Local Aural Broadcast Service.* None.

3. *Economic Considerations.* Petitioner states that the economy of Bloomfield and Davis County is based on agriculture and industry. He adds that Bloomfield is the business hub of Davis County with some 150 different businesses.

4. In view of the apparent need for a first local aural broadcast service in Bloomfield, the Commission proposes to amend the FM Table of Assignments, Section 73.202(b) of the Commission's Rules, as it pertains to Bloomfield, Iowa:

| City | Channel No. | |
|---|---|---|
| | Present | Proposed |
| Bloomfield, Iowa | | 292A |

5. Authority to institute rulemaking proceedings, showings required, cut-off procedures, and filing requirements are contained in the attached Appendix and are incorporated by reference herein.

Note.—A showing of continuing interest is required by paragraph 2 of the Appendix before a channel will be assigned.

6. Interested parties may file comments on or before March 7, 1980, and reply comments on or before March 27, 1980.

7. For further information concerning this proceeding, contact Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792. However, members of the public should note that from the time a notice of proposed rulemaking is issued until it is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel assignments. An *ex parte* contact is a message (spoken or written) concerning the merits of a pending rulemaking other than comments officially filed at the Commission or oral presentation required by the Commission.

[1] Public Notice of the petition was given on October 31, 1979, Report No. 1198.

[2] Population figures are taken from the 1970 U.S. Census.

Federal Communications Commission.

Henry L. Baumann,

*Chief, Policy and Rules Division, Broadcast Bureau.*

Appendix

1. Pursuant to authority found in Sections 4(i), 5(d)(1), 303(g) and (r), and 307(b) of the Communications Act of 1934, as amended, and Section 0.281(b)(6) of the Commission's Rules, IT IS PROPOSED TO AMEND the FM Table of Assignments, Section 73.202(b) of the Commission's Rules and Regulations, as set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached.

2. *Showings required.* Comments are invited on the proposal(s) discussed in the Notice of Proposed Rule Making to which this Appendix is attached. Proponent(s) will be expected to answer whatever questions are presented in initial comments. The proponent of a proposed assignment is also expected to file comments even if it only resubmits or incorporates by reference its former pleadings. It should also restate its present intention to apply for the channel if it is assigned, and, if authorized, to build the station promptly. Failure to file may lead to denial of the request.

3. *Cut-off procedures.* The following procedures will govern the consideration of filings in this proceeding.

(a) Counterproposals advanced in this proceeding itself will be considered, if advanced in initial comments, so that parties may comment on them in reply comments. They will not be considered if advanced in reply comments. (See § 1.420(d) of Commission Rules.)

(b) With respect to petitions for rule making which conflict with the proposal(s) in this Notice, they will be considered as comments in the proceeding, and Public Notice to this effect will be given as long as they are filed before the date for filing initial comments herein. If they are filed later than that, they will not be considered in connection with the decision in this docket.

4. *Comments and reply comments; service.* Pursuant to applicable procedures set out in Sections 1.415 and 1.420 of the Commission's Rules and Regulations, interested parties may file comments and reply comments on or before the dates set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached. All submissions by parties to this proceeding or persons acting on behalf of such parties must be made in written comments, reply comments, or other appropriate pleadings. Comments shall be served on the petitioner by the person filing the comments. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. Such comments and reply comments shall be accompanied by a certificate of service. (See § 1.420 (a), (b) and (c) of the Commission Rules.)

5. *Number of copies.* In accordance with the provisions of Section 1.420 of the Commission's Rules and Regulations, an original and four copies of all comments, reply comments, pleadings, briefs, or other documents shall be furnished the Commission.

6. *Public inspection of filings.* All filings made in this proceeding will be available for

examination by interested parties during regular business hours in the Commission's Public Reference Room at its headquarters, 1919 M Street, N.W., Washington, D.C.

[FR Doc. 80-1671 Filed 1-18-80; 8:45 am]
BILLING CODE 6712-01-M

## 47 CFR Part 73

[BC Doc. No. 80-3; RM-3517]

## FM Assignment to Paxton, Ill.

**AGENCY:** Federal Communications Commission.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** Action taken herein proposes the assignment of a first Class A FM channel to Paxton, Illinois, in response to a petition filed by Roger C. Elliott. The proposed channel could provide for a first local aural broadcast service in the community.

**DATES:** Comments must be filed on or before March 7, 1980, and reply comments must be filed on or before March 27, 1980.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Mildred B. Nesterak, Broadcast Bureau (202) 632-7792.

**SUPPLEMENTARY INFORMATION:**

Adopted: January 8, 1980.

Released: January 16, 1980.

By the Chief, Policy and Rules Division.

1. *Petitioner, Proposal, Comments.* (a) A petition for rule making [1] was filed by Roger C. Elliott ("petitioner"), proposing the assignment of FM Channel 285A to Paxton, Illinois. No responses to the petition have been received.

(b) The channel can be assigned in conformity with the minimum distance separation requirements.

(c) Petitioner states he will apply for the channel, if assigned.

2. *Community Date.* (a) *Location.* Paxton, in Ford County, is located approximately 116 kilometers (72 miles) east of Peoria, Illinois.

(b) *Population.* Paxton—4,373; [2] Ford County—16,382.

(c) *Local Aural Broadcast Service.* None.

3. *Economic Considerations.* Petitioner states that Paxton is an agricultural area with substantial industry. He notes that some of the major industries include the manufacture of electronics components, regional sales and service of heavy equipment, manufacture of heat exchangers, and shipment of farm products. Petitioner's demographic data is sufficient to warrant consideration of the need for an FM assignment in Paxton.

4. In view of the foregoing and the fact that the proposed channel could provide the community with a first local aural broadcast service, the Commission proposes to amend the FM Table of Assignments, Section 73.202(b) of the Commission's Rules, with respect to Paxton, Illinois, as follows:

| City | Channel No. | |
|---|---|---|
| | Present | Proposed |
| Paxton, Illinois | | 285A |

5. Authority to institute rule making proceedings, showings required, cut-off procedures and filing requirements is contained in the attached Appendix and are incorporated by reference herein. *NOTE:* A showing of continuing interest is required by paragraph 2 of the Appendix before a channel will be assigned.

6. Interested parties may file comments on or before March 7, 1980, and reply comments on or before March 27, 1980.

7. For further information concerning this proceeding, contact Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792. However, members of the public should note that from the time a notice of proposed rule making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel assignments. An *ex parte* contact is a message (spoken or written) concerning the merits of a pending rule making other than comments officially filed at the Commission or oral presentation required by the Commission.

Federal Communications Commission.

Henry L. Baumann,

*Chief, Policy and Rules Division, Broadcast Bureau.*

Appendix

1. Pursuant to authority found in Sections 4(i), 5(d)(1), 303 (g) and (r), and 307(b) of the Communications Act of 1934, as amended, and Section 0.281(b)(6) of the Commission's Rules, IT IS PROPOSED TO AMEND the FM Table of Assignments, Section 73.202(b) of the Commission's Rules and Regulations, as set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached.

2. *Showings required.* Comments are invited on the proposal(s) discussed in the Notice of Proposed Rule Making to which this Appendix is attached. Proponent(s) will be expected to answer what ever questions are presented in initial comments. The proponent of a proposed assignment is also expected to file comments even if it only resubmits or incorporates by reference its former pleadings. It should also restate its present intention to apply for the channel if it is assigned, and, if authorized, to build the station promptly. Failure to file may lead to denial of the request.

3. *Cut-off procedures.* The following procedures will govern the consideration of filings in this proceeding.

(a) Counterproposals advanced in this proceeding itself will be considered, if advanced in initial comments, so that parties may comment on them in reply comments. They will not be considered if advanced in reply comments. (See § 1.420(d) of Commission Rules.)

(b) With respect to petitions for rule making which conflict with the proposal(s) in this Notice, they will be considered as comments in the proceeding, and Public Notice to this effect will be given as long as they are filed before the date for filing initial comments herein. If they are filed later than that, they will not be considered in connection with the decision in this docket.

4. *Comments and reply comments; service.* Pursuant to applicable procedures set out in Sections 1.415 and 1.420 of the Commission's Rules and Regulations, interested parties may file comments and reply comments on or before the dates set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached. All submissions by parties to this proceeding or persons acting on behalf of such parties must be made in written comments, reply comments, or other appropriate pleadings. Comments shall be served on the petitioner by the person filing the comments. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. Such comments and reply comments shall be accompanied by a certificate of service. (See§ 1.420 (a), (b) and (c) of the Commission Rules.)

5. *Number of copies.* In accordance with the provisions of Section 1.420 of the Commission's Rules and Regulations, an original and four copies of all comments, reply comments, pleadings, briefs, or other documents shall be furnished the Commission.

6. *Public inspection of filings.* All filings made in this proceeding will be available for examination by interested parties during regular business hours in the Commission's Public Reference Room at its headquarters, 1919 M Street, NW., Washington, D.C.

[FR Doc. 80-1672 Filed 1-18-80; 8:45 am]
BILLING CODE 6712-01-M

## 47 CFR Part 73

[BC Doc. No. 80-4; RM-3519]

## Noncommercial Educational FM Assignment to Lake Havasu City, Ariz.

**AGENCY:** Federal Communications Commission.

**ACTION:** Notice of proposed rulemaking.

[1] Public Notice of the petition was given on October 31, 1979, Report No. 1198.

[2] Population figures are taken from the 1970 U.S. Census.

**SUMMARY:** Action taken herein proposes the assignment of a first noncommercial educational FM channel to Lake Havasu City, Arizona, in response to a petition filed by New Life Christian School. The proposed channel could provide for a first local noncommercial educational FM broadcast service to the community.

**DATES:** Comments must be filed on or before March 7, 1980. Reply comments must be filed on or before March 27, 1980.

**ADDRESS:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792.

**SUPPLEMENTARY INFORMATION:**

Adopted: January 10, 1980.

Released: January 16, 1980.

By the Chief, Policy and Rules Division.

1. *Petition, Proposal, Comments.* (a) A petition for rule making[1] was filed by the New Life Christian School ("petitioner"), proposing the assignment of FM Channel 216A to Lake Havasu City, Arizona, for noncommercial educational FM use. No responses to the petition have been received.

(b) The channel can be assigned in compliance with the minimum distance separation requirements.

(c) Petitioner states it will apply for the channel, if assigned.

2. *Community Data.* (a) *Location.* Lake Havasu City, in Mohave County, is situated on the shores of Lake Havasu near the California border and approximately 241 kilometers (150 miles) west of Phoenix, Arizona.

(b) *Population.* Lake Havasu City—13,524;[2] Mohave County—25,857.

(c) *Local Aural Broadcast Service:* Lake Havasu City is served locally by daytime-only Station KFWJ and FM Station KRFM (Channel 240A). There are no local noncommercial educational FM channels assigned to Lake Havasu City.

3. *Economic Considerations:* Petitioner asserts that the tourist activities provide a base for the local economy, as does Black and Decker, which employs over 1,000 persons.

4. Since Lake Havasu City is located within 320 kilometers (199 miles) of the U.S.-Mexico border, the proposed assignment requires the concurrence of the Mexican Government.

5. In view of the foregoing, and the fact that the proposed channel could provide a first local noncommercial educational FM service to Lake Havasu City, it is proposed to amend the Noncommercial Educational FM Table of Assignments, Section 73.504(a) of the Commission's Rules, as it pertains to the listed city:

| City | Channel No. | |
|---|---|---|
| | Present | Proposed |
| Lake Havasu City, Arizona | | 216A |

6. The Commission's authority to institute rule making proceedings, showings required, cut-off procedures and filing requirements are contained in the attached Appendix and are incorporated by reference herein.

Note.—A showing of continuing interest is required by paragraph 2 of the Appendix before a channel will be assigned.

7. Interested parties may file comments on or before March 7, 1980, and reply comments on or before March 27, 1980.

8. For further information concerning this proceeding, contact Mildred B. Nesterak, Broadcast Bureau, (202) 632-7792. However, members of the public should note that from the time a notice of proposed rule making is issued until it is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel assignments. An *ex parte* contact is a message (spoken or written) concerning the merits of a pending rule making other than comments officially filed at the Commission or oral presentation required by the Commission.

Federal Communications Commission.

Henry L. Baumann,

*Chief, Policy and Rules Division, Broadcast Bureau.*

Appendix

1. Pursuant to authority found in Sections 4(i), 5(d)(1), 303 (g) and (r), and 307(b) of the Communications Act of 1934, as amended, and Section 0.281(b)(6) of the Commission's Rules, IT IS PROPOSED TO AMEND the FM Table of Assignments, Section 73.504(a) of the Commission's Rules and Regulations, as set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached.

2. *Showings required.* Comments are invited on the proposal(s) discussed in the Notice of Proposed Rule Making to which this Appendix is attached. Proponent(s) will be expected to answer whatever questions are presented in initial comments. The proponent of a proposed assignment is also expected to file comments even if it only resubmits or incorporates by reference its former pleadings. It should also restate its present intention to apply for the channel if it is assigned, and, if authorized, to build the station promptly. Failure to file may lead to denial of the request.

3. *Cut-off procedures.* The following procedures will govern the consideration of filings in this proceeding.

(a) Counterproposals advanced in this proceeding itself will be considered, if advanced in initial comments, so that parties may comment on them in reply comments. They will not be considered if advanced in reply comments. (See § 1.420(d) of Commission Rules.)

(b) With respect to petitions for rulemaking which conflict with the proposal(s) in this Notice, they will be considered as comments in the proceeding, and Public Notice to this effect will be given as long as they are filed before the date for filing initial comments herein. If they are filed later than that, they will not be considered in connection with the decision in this docket.

4. *Comments and reply comments; service.* Pursuant to applicable procedures set out in Sections 1.415 and 1.420 of the Commission's Rules and Regulations, interested parties may file comments and reply comments on or before the dates set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached. All submissions by parties to this proceeding or persons acting on behalf of such parties must be made in written comments, reply comments, or other appropriate pleadings. Comments shall be served on the petitioner by the person filing the comments. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. Such comments and reply comments shall be accompanied by a certificate of service. (See § 1.420 (a), (b) and (c) of the Commission Rules.)

5. *Number of copies.* In accordance with the provisions of Section 1.420 of the Commission's Rules and Regulations, an original and four copies of all comments, reply comments, pleadings, briefs, or other documents shall be furnished the Commission.

6. *Public inspection of filings.* All filings made in this proceeding will be available for examination by interested parties during regular business hours in the Commission's Public Reference Room at its headquarters, 1919 M Street, NW., Washington, D.C.

[FR Doc. 80-1877 Filed 1-18-80; 8:45 am]

BILLING CODE 6712-01-M

[1] Public Notice of the petition was given on October 31, 1979, Report No. 1198.

[2] There is no population figure listed for Lake Havasu City in the 1970 U.S. Census. Petitioner claims that, according to a special federal census count made in January 1979, the population of Lake Havasu City was 13,524.

# Notices

Federal Register
Vol. 45, No. 14
Monday, January 21, 1980

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF AGRICULTURE

### Office of the Secretary

### World Food and Agricultural Outlook and Situation Board; Organization, Functions, and Availability of Information

Notice is hereby given for the guidance of the general public as to the organization, functions, and availability of information for the World Food and Agricultural Outlook and Situation Board (WFAOSB).

Part I—Organization and Functions

*Section 1—General.* The WFAOSB was established in the U.S. Department of Agriculture pursuant to Secretary's Memorandum No. 1920, dated June 3, 1977. This Memorandum abolished the Outlook and Situation Board (OSB) in the former Economic Research Service, and transferred all OSB functions to the new Board. Subsequent Secretary's Memoranda have assigned further responsibilities to the Board in the areas of interagency commodity estimates (Secretary's Memorandum No. 1769, Revised, dated February 16, 1978), weather and climate activities (Secretary's Memorandum No. 1937, dated February 17, 1978), and remote sensing (Secretary's Memorandum No. 1951, dated August 1, 1978). The specific delegations of authority from the Director of Economics, Policy Analysis and Budget to the Chairman, WFAOSB, are contained in 7 CFR 2.86.

*Section 2—Organization.* The WFAOSB consists of a small staff of career professionals located in Washington, D.C. The principal officers of the Board are the Chairman, Deputy Chairman for Economic Research, Weather, and Remote Sensing, Deputy Chairman for Economic Intelligence, Clearance Review Officer, Weather and Climate Coordinator, Remote Sensing Coordinator, and Senior Macroeconomic Analyst. Commodity and Regional Analysts on the Board have independent authority to coordinate and review all crop and commodity data used to develop outlook and situation material in their assigned area.

*Section 3—Authority to Act for the Chairman.* In the absence of the Chairman, the following officials are authorized to act for him in the order indicated:

Deputy Chairman for Economic Research, Weather, and Remote Sensing.
Deputy Chairman for Economic Intelligence.

*Section 4—Functions.* The WFAOSB has four major areas of responsibility:

(a) *Food and Agricultural Outlook and Situation.*

(1) Coordinate and review all crop and commodity data used to develop outlook and situation material within the Department of Agriculture.

(2) Oversee and clear for consistency of analytical assumptions and results, all estimates and analyses which significantly relate to international and domestic commodity supply and demand. This includes such estimates and analyses prepared for public distribution by the Foreign Agricultural Service, the Economics, Statistics, and Cooperatives Service, or by any other agency or office of the Department.

(3) Participate in planning and developing research programs relating to improving the Department's forecasting and estimating capabilities.

(4) Provide liaison between the Department and Commodity Futures Trading Commission to assure that the futures market serves the best interest of agriculture and the public.

(5) Plan and participate in Departmental, interdepartmental, regional and international outlook conferences and briefings, in order to maintain an awareness of current and upcoming economic issues significant to the food and agricultural system.

(b) *Interagency Commodity Estimates.*

(1) Establish Interagency Commodity Estimates Committees to bring together estimates and analyses from supporting agencies and to develop official estimates of supply, utilization, and prices for commodities.

(2) Review for consistency of analytical assumptions and results, all proposed decisions made by Commodity Estimates Committees prior to any release outside the Department.

(c) *Weather and Climate.* Serve as a focal point within the Department for coordination of weather, climate, and related crop monitoring activities.

(d) *Remote Sensing.*

(1) Provide technical assistance, coordination, and guidance to Department agencies in planning, developing, and carrying out satellite remote sensing activities to assure full consideration and evaluation of advanced technology.

(2) Coordinate administrative, management, and budget information relating to Department's remote sensing activities.

Part II—Availability of Information

*Section 5—General.* This part is issued in accordance with the regulations of the Secretary of Agriculture in Part I, Subpart A, of Subtitle A of Title 7, CFR (7 CFR 1.1–1.16), and Appendix A thereto, implementing the Freedom of Information Act (5 USC 552). The Secretary's regulations, as implemented by this part, govern the availability of records of WFAOSB to the public.

*Section 6—Indexes.* 5 U.S.C. 552(a)(2) requires that certain materials be made available for public inspection and copying and that a current index of these materials likewise be made available. WFAOSB does not maintain any materials within the scope of these requirements.

*Section 7—Requests for Records.* Requests for records under 5 U.S.C. 552(a)(3) shall be made in accordance with 7 CFR 1.3(a) and addressed to: Chief, Records, Systems, and Analysis Branch, Administrative Services Division, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, Washington, D.C. 20250. Authority is hereby delegated to this official to make determination regarding such requests in accordance with 7 CFR 1.4(c).

*Section 8—Appeals.* Any person whose request for records is denied shall have the right to appeal that denial in accordance with 7 CFR 1.3(e) and 1.7. All appeals shall be addressed to: Chairman, World Food and Agricultural Outlook and Situation Board, U.S. Department of Agriculture, Washington, D.C. 20250.

*Section 9—Requests for Published Data and Related Information.* Published data and related information

on all WFAOSB programs may be obtained from the Chairman, Room 3509 South Building, WFAOSB, U.S. Department of Agriculture, Washington, D.C. 20250.

This rule relates to internal agency management and, therefore, pursuant to 5 U.S.C. 553 it is found upon good cause that notice and other public procedure with respect thereto are impractical and contrary to the public interest, and good cause is found for making this rule effective less than 30 days after publication in the Federal Register. Further, since this rule relates to internal agency management it is exempt from the provisions of Executive Order 12044, "Improving Government Regulations," and Secretary's Memorandum No. 1955.

Dated: January 16, 1980.

J. Dawson Ahalt,

*Chairman, World Food and Agricultural Outlook and Situation Board.*

[FR Doc. 80-1856 Filed 1-18-80; 8:45 am]

BILLING CODE 3410-01-M

## CIVIL AERONAUTICS BOARD

**[Docket 31029; Agreements CAB 23870 and CAB 18923]**

### Air Traffic Conference of America; Automated Services Provided to Travel Agents and Customers; Final Order

Adopted by the Civil Aeronautics Board at its office in Washington, D.C. on the 15th day of January, 1980.

Agreements among members of Air Traffic Conference of America concerning automated services provided to travel agents and customers.

By Order 79-8-187, adopted August 31, 1979, we directed all interested persons to show cause why we should not disapprove the existing Air Traffic Conference of America (ATC) off-premises automated service rules contained in Agreements CAB 18923 and CAB 23870, as previously amended by ATC and approved by the Board.[1] We tentatively concluded that Agreement CAB 23870 substantially reduces competition by fixing the transmission fees charged by competing air carriers providing automated services to travel agents and customers; that Agreements CAB 23870 and CAB 18923 substantially reduce competition by establishing standardized terms and conditions for the off-premises placement of automated reservations and ticketing equipment by participating ATC carriers; and that neither of the agreements were necessary to meet a serious transportation need or to secure important public benefits which could not be met by reasonably available, less anticompetitive alternatives.

Comments in response to our show cause order were received from ITT Electronic Travel Services, Inc. (ITTETS).[2] While it does not object to our disapproval of the agreements, ITTETS is concerned that our action may create the potential for an environment in which air carriers with their own computerized reservations systems may make them accessible to travel agents at a price less than the carriers' costs of providing the service, through cross-subsidy from their passenger transportation revenues. It contends that such cross-subsidization would permit those carriers to underprice, and ultimately drive out of the market the services of competing entities which cannot cross-subsidize their services. In order to ensure a competitive environment for agency automation, ITTETS requests that we institute appropriate safeguards against air carrier cross-subsidization of their off-premises automated services.

We have decided to make final our tentative findings and conclusions as set forth in Order 79-8-187. ITTETS has not demonstrated that our disapproval of these agreements will result in anticompetitive behavior by the air carrier participants. Concomitantly, it has not convincingly supported its request for Board-imposed safeguards against below-cost pricing of carriers' off-premises automated services. As discussed in Order 79-8-187, we believe that the unfettered operations of market forces and the antitrust laws are sufficient to ensure competition and to protect against predatory pricing in the agency automation market.

Accordingly: 1. We make final the tentative findings and conclusions contained in Order 79-8-187, dated August 31, 1979;

2. We disapprove Agreements CAB 18923 and CAB 23870, as amended by the Air Traffic Conference of America and previously approved by the Board; and

3. We will serve this order upon all holders of certificates of public convenience and necessity, Air Transport Association of America, American Automobile Association, American Express Company, American Society of Travel Agents, Inc., Association of Retail Travel Agents, Ltd., Honeywell Corporation, International Telephone & Telegraph Corporation, ITT Electronic Travel Services, Inc., Association of Bank Travel Bureaus, National Passenger Traffic Association, Tymshare, Inc., and the U.S. Departments of Justice and Transportation.

This order shall be published in the Federal Register.

By the Civil Aeronautics Board.

Phyllis T. Kaylor

*Secretary*

[FR Doc. 80-1849 Filed 1-18-80; 8:45 am]

BILLING CODE 6320-01-M

[1] Agreement CAB 18923 provides for the placement by ATC carriers of reservations equipment, provided that the agent or customer pays all equipment installation and maintenance expenses; that the carrier may pay communications costs (other than installation costs) associated with the equipment; that the carrier must recover the amortized cost of the equipment in monthly installments from the agent or customer over a maximum five-year period; and that any carrier-agent/customer arrangement under the rule must be terminated or converted to the industrywide automated system when the latter system is operative. Agreement CAB 23870 permits the off-premises placement of ticketing devices under the same non-price terms and conditions, as well as requiring the carrier to charge a prescribed fee for transmitting ticketing data.

[2] ITTETS, a subsidiary of International Telephone & Telegraph Corporation, has recently begun marketing a computerized reservations access service to travel agencies.

**[Docket 34171]**

### Enforcement Proceeding; Allegheny Airlines, Inc. v. United Air Lines, Inc.; Notice of Assignment of Proceeding

This proceeding is hereby assigned to Administrative Law Judge William H. Dapper. Future communications should be addressed to Judge Dapper.

Dated at Washington, D.C., January 15, 1980.

Joseph J. Saunders,

*Chief Administrative Law Judge.*

[FR Doc. 80-1854 Filed 1-18-80; 8:45 am]

BILLING CODE 6320-01-M

**[Dockets 33362, 33525, and 35526]**

### Former Large Irregular Air Service Investigation, Phase II and Applications of Intercontinental Airways, Inc.; Notice of Postponement of Hearing

Notice is hereby given that the hearing in the above-entitled proceeding now assigned to be held on January 23, 1980 at 9:30 a.m. (45 FR 2074) is postponed until February 19, 1980 at 9:30 a.m. (local time) in room 1003, Hearing Room D, Universal North Building, 1875 Connecticut Avenue, N.W., Washington, D.C. before the undersigned.

Dated at Washington, D.C., January 15, 1980.

Joseph J. Saunders,

*Chief Administrative Law Judge.*

[FR Doc. 80-1853 Filed 1-18-80; 8:45 am]

BILLING CODE 6320-01-M

[Order 80-1-95]

## Pan American World Airways, Inc.; Amendment to Certificate

**AGENCY:** Civil Aeronautics Board.

**ACTION:** Notice of Order to Show Cause: Order 80-1-95.

**SUMMARY:** The Board proposes to approve the following application:

Applicant: Pan American World Airways, Inc.
Application Date: October 9, 1979.
Docket: 15019.
Authority Sought: Amendment to its certificate for Route 133 to add Abidjan, Ivory Coast, as an intermediate point.

**OBJECTIONS:** All interested persons having objections to the Board's tentative findings and conclusions that this authority should be granted, as described in the order cited above, shall, NO LATER THAN February 4, 1980, file a statement of such objections with the Civil Aeronautics Board (20 copies) and mail copies to the applicant, the Department of Transportation, the Department of State, and the Ambassador of the Ivory Coast. A statement of objections must cite the docket number and must include a summary of testimony, statistical data, or other such supporting evidence.

If no objections are filed, the Secretary of the Board will enter an order which will, subject to disapproval by the President, make final the Board's tentative findings and conclusions and issue the proposed certificate.

**ADDRESSES FOR OBJECTIONS:**

Docket 10519, Docket Section, Civil Aeronautics Board, Washington, D.C. 20428.
Applicant: Pan American World Airways, c/o Verner, Liipfert, Bernhard and McPherson, Suite 1100, 1660 L Street, N.W. Washington, D.C. 20036.

**TO GET A COPY OF THE COMPLETE ORDER:** Request it from the C.A.B. Distribution Section, Room 516, 1825 Connecticut Avenue, N.W., Washington, D.C. 20428. Persons outside the Washington metropolitan area may send a postcard request.

**FOR FURTHER INFORMATION CONTACT:** Ms. Patricia L. DePuy, Regulatory Affairs Division, Bureau of International Aviation, Civil Aeronautics Board; (202) 673-5092.

By the Civil Aeronautics Board: January 14, 1980.

Phyllis T. Kaylor,

*Secretary.*

[FR Doc. 80-1851 Filed 1-18-80; 8:45 am]

BILLING CODE 6320-01-M

[Order 80-1-19]

## Swift Aire Lines; Notice of Order

**AGENCY:** Civil Aeronautics Board.

**ACTION:** Notice of Order to Show Cause and Fitness Investigation of Swift Aire Lines (Order 80-1-19).

**SUMMARY:** The Board is issuing an order in which it tentatively finds and concludes that it is in the public convenience and necessity to grant the application of Swift Aire Lines, Inc., for a certificate authorizing the air transportation of persons, property, and mail between the terminal point San Francisco, the intermediate points San Jose, San Louis Obispo, and Santa Maria, and the terminal point Los Angeles, and between the terminal point San Francisco, the intermediate point Bakersfield, and the terminal point Los Angeles. Certification is subject to a favorable determination of the applicant's fitness in the *Swift Aire Lines, Inc., Fitness Investigation* (Docket 37391), instituted concurrently.

**DATES:** All interested persons having objections to the Board issuing an order making final the tentative findings and conclusions shall file by February 21, 1980, a statement of objections together with a summary of testimony, statistical data, and other material expected to be relied upon to support the stated objections. Such filings shall be served upon all parties listed below.

**ADDRESSES:** Objections to issuance of a final order should be filed in the Dockets Section, Civil Aeronautics Board, Washington, D.C., 20428, in Docket 36694, application of Swift Aire Lines, Inc., for a certificate amendment.

In addition copies of such filings should be served on Air California, Air Pacific, American Airlines, Apollo Airways, Braniff International Airways, Continental Airlines, Delta Airlines, Eastern Airlines, Golden West Air, Hughes Airwest, National Airlines, Northwest Airlines, Pacific Southwest Airlines, Sun Aire Lines, Trans World Airlines, United Air Lines, Western Airlines, World Airways, the Mayors of San Francisco, Los Angeles, San Jose, San Louis Obispo, Santa Maria, Bakersfield, Calif., the Managers of Los Angeles International Airport, Bakersfield Airport, San Jose Municipal Airport, San Francisco International Airport, Santa Maria Airport, San Louis Obispo Airport, and the Public Utilities Commission of California.

**FOR FURTHER INFORMATION CONTACT:** Laurie Schaffer, Bureau of Domestic Aviation, Civil Aeronautics Board, 1825 Connecticut Avenue, N.W., Washington, D.C. 20428; (202) 673-5009.

**SUPPLEMENTARY INFORMATION:** The complete text of Order is available from our Distribution Section, Room 516, 1825 Connecticut Avenue, N.W., Washington, D.C. Persons outside the metropolitan area may send a postcard request for Order to the Distribution Section, Civil Aeronautics Board, Washington, D.C. 20428.

By the Civil Aeronautics Board: January 4, 1980.

Phyllis T. Kaylor,

*Secretary.*

[FR Doc. 80-1852 Filed 1-18-80; 8:45 am]

BILLING CODE 6320-01-M

# DEPARTMENT OF COMMERCE

## Maritime Administration

## Presidential Oil Pollution Insurance Study; Request for Comments

Notice is hereby given that, pursuant to the requirement to conduct a study of oil pollution liability insurance under section 305(d) of the Outer Continental Shelf Lands Act Amendments of 1978 (Pub. L. 95-372), the public is invited to submit comments on the availability, affordability, and competition in the market for oil pollution liability insurance for vessels, onshore facilities, and offshore facilities. Comments received will be taken into consideration when recommendations for action are drafted for the President to submit to Congress as part of the Presidential Oil Pollution Insurance Study. Comments may address, but need not be limited to, the following topics:

1. Insurability of present or proposed oil pollution liability.
2. Desirability of a Federal Fund as the exclusive device for risk and claims management.
3. Difficulties of insurance pricing and price adjustment in the short run as a substantial reason for not insuring pollution liability.
4. Considerations other than risk and claims cost that prevent insurers from participating in oil pollution liability insurance.
5. Federal preemption of state laws.
6. Oil pollution liability indemnity agreements, existence and significance.
7. Definition of claims and eligible claimants.
8. Need for mutual loss or risk plans.

9. Capacity of insurance market for oil pollution risks.

10. Other factors affecting insurability of oil pollution liability.

Comments should be related to vessel risks, offshore facility risks, and onshore facility risks separately.

This notice of request for comments is separate from the notice published on January 7, 1980, (Federal Register, Vol. 45, No. 4, Document No. 80–431), by the Office of Management and Budget (OMB) in connection with a survey, in which comments are requested on questionnaires prepared to elicit specific statistical data from insureds, insurers, and agents/brokers on oil pollution liability insurance.

This separate notice is intended to allow the public a forum to express its attitudes, perceptions, and positions on the current problems of oil pollution insurance in broad terms. Responses will supplement and provide a background for the specific statistical data collected in the questionnaires.

Comments should be sent to the Secretary, Maritime Subsidy Board, Maritime Administration, U.S. Department of Commerce, Washington, D.C. 20230, by February 15, 1980.

All comments will be open to public inspection in Room 3099–B, Department of Commerce Building, Washington, D.C., during normal working hours.

Dated: January 16, 1980.

Robert J. Patton, Jr.,

*Secretary, Maritime Subsidy Board.*

[FR Doc. 80–1681 Filed 1–1–80; 8:45 am]

BILLING CODE 3510–15–M

## National Oceanic and Atmospheric Administration

### Gulf of Mexico Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service, NOAA.

**SUMMARY:** The Gulf of Mexico Fishery Management Council, established by section 302 of the Fishery Conservation and Management Act of 1976 (Pub. L. 94–265), will meet to review status reports on development of fishery management plans; consider foreign fishing applications, if any; and conduct other fishery management business.

**DATES:** The meeting will convene on Tuesday, February 5, 1980, at 1:30 p.m., and adjourn at 5 p.m.; reconvene on Wednesday, Feruary 6, 1980, at 8:30 a.m., and adjourn at 5 p.m., and on Thursday, February 7, 1980, reconvene at 8:30 a.m., and adjourn at approximately 12 noon. The meeting is open to the public.

**ADDRESS:** The meeting will take place in the southern Pine Room, Holiday Inn Downtown, 200 East Amite Street, Jackson, Mississippi.

**FOR FURTHER INFORMATION CONTACT:** Gulf of Mexico Fishery Management Council, Lincoln Center, Suite 881, 5401 West Kennedy Boulevard, Tampa, Florida 33609. Telephone: (813) 228–2815.

Winfred H. Meibohm,

*Executive Director, National Marine Fisheries Service.*

January 16, 1980.

[FR Doc. 80–1667 Filed 1–18–80; 8:45 am]

BILLING CODE 3510–22–M

## COMMITTEE FOR PURCHASE FROM THE BLIND AND OTHER SEVERELY HANDICAPPED

### Procurement List 1980; Proposed Addition

*Correction*

In FR Doc. 80–1215, appearing on page 2880 in the issue of Tuesday, January 15, 1980, the last set of figures in the third column under the heading *"Class 7350"* should read, "7350–01–145–6127".

BILLING CODE 6820–33–M

## DEPARTMENT OF DEFENSE

### Department of the Navy

### Availability of Draft Environmental Impact Statement on the Continued Use of the Atlantic Fleet Weapons Training Facility Inner Range (Vieques)

The Department of the Navy, on December 28, 1979, filed a Draft Environmental Impact Statement (DEIS) covering the Continued Use of the Atlantic Fleet Weapons Training Facility Inner Range (Vieques) with the Environmental Protection Agency (EPA).

The DEIS describes the continuation of naval activities on the Island of Vieques, Commonwealth of Puerto Rico. These naval activities include air-to-ground and naval gunfire support training in the Inner Range of the Atlantic Fleet Weapons Training Facility (AFWTF) on eastern Vieques, marine landing, maneuver and artillery training operations in the Eastern Maneuver Area (EMA) on east-central Vieques, and storage of ammunition at the Naval Ammunition Facility (NAF) on western Vieques. These activities have been occurring on Navy-owned land on Vieques for a number of years, and it is proposed that they continue at a level equal to or greater than current levels.

Copies of the DEIS are available for public inspection at the following locations:

Commander, Naval Facilities Engineering Command, 200 Stoval Street, Alexandria, VA

Operational Archives Branch, Naval Historical Center (Op-09BH), Room 410, Building 210, Washington Navy Yard, Washington, DC

Commander, Atlantic Division, Naval Facilities Engineering Command, Naval Station, Norfolk, VA

Library of the Senate of Puerto Rico, Capital Building, San Juan, PR

Library of the College of Agricultural and Mechanical Arts, University of Puerto Rico, Mayaguez Campus, College Station, Mayaguez, PR

General Library, University of Puerto Rico, University Station, Rio Piedras, PR

High School Library, Isabella Segunda, Vieques, PR

Director, Puerto Rico Branch, Atlantic Division, Naval Facilities Engineering Command, U.S. Naval Station, Roosevelt Roads, PR

Ponce Public Library, Mayor y Christina, Ponce, PR

Vieques Minicipal Library, Vieques, PR

The Department of the Navy is soliciting public comments on this document. Comments, or requests for further information, should be addressed to:

Director, Puerto Rico Branch, Atlantic Division, Naval Facilities Engineering Command, U.S. Naval Station (Roosevelt Roads, PR), FPO Miami 34051, Telephone No. (809) 863–4204/4083

or

Commander, Atlantic Division, Naval Facilities Engineering Command, Naval Station, Norfolk, VA 23511, Telephone No. (804) 444–7131

Because the Navy does not presently intend to hold public hearings on this DEIS, the public is encouraged to take this opportunity to comment. The Navy will hold the comment period open on this document until April 15, 1980, to ensure all interested persons have ample opportunity to comment.

Dated: January 14, 1980.

P. B. Walker,

*Captain, JAGC, U.S. Navy Deputy Assistant Judge Advocate General (Administrative Law).*

[FR Doc. 80–1630 Filed 1–18–80; 8:45 am]

BILLING CODE 3810–71–M

### Office of the Secretary

### Department of Defense Wage Committee; Closed Meetings

Pursuant to the provisions of section 10 of Pub. L. 92–463, the Federal Advisory Committee Act, effective January 5, 1973, notice is hereby given

that a meeting of the Department of Defense Wage Committee will be held on Tuesday, March 4, 1980; Tuesday, March 11, 1980; Tuesday, March 18, 1980; and Tuesday, March 25, 1980 at 10:00 a.m. in Room 3D–325, The Pentagon, Washington, D.C.

The Committee's primary responsibility is to consider and submit recommendations to the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) concerning all matters involved in the development and authorization of wage schedules for Federal prevailing rate employees pursuant to Public Law 92–392. At this meeting, the Committee will consider wage survey specifications, wage survey data, local wage survey committee reports and recommendations, and wage schedules derived therefrom.

Under the provisions of section 10(d) of Pub. L. 92–463, the Federal Advisory Committee Act, meetings may be closed to the public when they are "concerned with matters listed in section 552b. of Title 5, United States Code." Two of the matters so listed are those "related solely to the internal personnel rules and practices of an agency," (5 U.S.C. 552b. (c)(2)), and those involving "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (5 U.S.C. 552b. (c)(4)).

Accordingly, the Deputy Assistant Secretary of Defense (Civilian Personnel Policy) hereby determines that all portions of the meeting will be closed to the public because the matters considered are related to the internal rules and practices of the Department of Defense (5 U.S.C. 552b. (c)(2)), and the detailed wage data considered by the Committee during its meetings have been obtained from officials of private establishments with a guarantee that the data will be held in confidence (5 U.S.C. 552b(4)).

However, members of the public who may wish to do so are invited to submit material in writing to the Chair concerning matters believed to be deserving of the Committee's attention. Additional information concerning this meeting may be obtained by writing the Chair, Department of Defense Wage Committee, Room 3D–281, The Pentagon, Washington, D.C.

H. E. Lofdahl,

*Director, Correspondence and Directives, Washington Headquarters Services, Department of Defense.*

January 15, 1980.

[FR Doc. 80–1808 Filed 1–17–80; 8:45 am]

BILLING CODE 3810–70–M

## DEPARTMENT OF ENERGY

### Requests for Interpretation Filed With the Office of General Counsel; Months of October and November 1979

Notice is hereby given that during the months of October and November 1979, the requests for interpretation listed in the Appendix to this notice were filed pursuant to 10 CFR Part 205, Subpart F with the Office of General Counsel, Department of Energy (DOE). Notice of subsequently received requests will be published at the end of each calendar month. Copies of the requests for interpretation listed herein are on file in and should be obtained from the DOE Public Reading Room, Information Access Office, Room GA–142, Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C. 20585, (202) 252–5969.

The statement of issue that follows each request for interpretation listed in the Appendix is not intended to be definitive or final. Rather, the issue statement should be regarded as the initial restatement by the DOE of the question that appears to have been presented for resolution. The issue may, of course, be refined and modified during the interpretive process.

Interested parties may submit written comments on the listed interpretation requests on or before February 20, 1980. Comments should be identified on the outside envelope and on documents submitted with the file number of the interpretation request and all comments should be filed with the Assistant General Counsel for Interpretations and Rulings, Office of General Counsel, Department of Energy, Room 5E052, 1000 Independence Avenue, SW., Washington, D.C. 20585. Any comments submitted should be served on the requesting parties as identified in the Appendix below. When appropriate, aggrieved parties, as defined in 10 CFR 205.2, will continue to receive actual notice of pending interpretation requests in accordance with the current practice of the Office of General Counsel.

For further information contact Diane Stubbs, Office of General Counsel, 1000 Independence Avenue, SW., Room 5E052, Washington, D.C. 20585, (202) 252–2948.

Everard A. Marseglia, Jr.,

*Assistant General Counsel for Interpretations and Rulings.*

January 14, 1980.

Appendix.—*Lists of Requests for Interpretation Received by the Office of General Counsel*

(Months of October and November 1979)

| Date received | Name and location of requestor | File No. |
|---|---|---|
| Oct. 1, 1979 | Norwegian Oil Co., Byron Thomas, Esq., Butler, Binion, Rice, Cook & Knapp, 818 Connecticut Avenue, NW., Washington, D.C. 20006. Issue: May Norwegian receive reimbursement from the purchaser of its crude oil for a fee charged by a refiner for separating condensate under 10 CFR 212.74? | A–484 |
| Oct. 1, 1979 | Chevron Agents Association, Inc., Otis D Phillips, Regulatory Consultant, Chevron Agents Association, Inc., P.O. Box 970, Norcross, Ga. 30091. Issue: Are certain Chevron consignee-agents wholesale purchaser-resellers and suppliers as these terms are defined in 10 CFR 211.51? | A–485 |
| Oct. 10, 1979 | CLEMCO, Noel D. Isehy, CLEMCO, 120 South College, Tyler, Tex. 75702. Issue: If heavy crude oil is produced by injecting into the formation high-gravity hydrocarbons, so that a blend of 25° crude oil is created in the ground and pumped to the surface, may the heavy crude oil portion of the blend be sold at market prices by virtue of Executive Order No. 12153, Decontrol of Heavy Oil? | A–486 |
| Oct. 10, 1979 | Mitchell Energy Corp., John E. Watson, Senior Vice President, Mitchell Energy Corp., 3300 One Shell Plaza, Houston, Tex. 77002. Issue: Does the computation of "tertiary incentive revenues," as that term is defined in 10 CFR 212.78(c), include payments passed through by qualified producers to royalty owners who are not participants in a particular enhanced oil recovery project? | A–487 |
| Oct. 12, 1979 | Shell Oil Co., Kim Jensen Clifford, Esq., Shell Oil Co., One Shell Plaza, P.O. Box 2463, Houston, Tex. 77001. Issue: (1) Do the tertiary incentive pricing amendments permit utilizing enhanced oil recovery techniques, as defined in 10 CFR 212.78(c), regardless of the status of that project on October 1, 1979? (2) On what basis are royalty owners of a property from which tertiary incentive crude oil is sold to be paid? | A–488 |
| Oct. 15, 1979 | Bighorn Pipe Line Co., J. Kevin Hayes, Esq., Hall, Estill, Hardwick, Gable, Collingsworth & Nelson, 4100 Bank of Oklahoma Tower, One Williams Center, Tulsa, Okla. 74172. Issue: In determining "acquisition cost" under Subpart L of the Mandatory Petroleum Price Regulations, may a reseller of crude oil use the LIFO method of inventory in valuing its sales from inventory? | A–489 |
| Oct. 24, 1979 | Standard Oil Co. (Indiana), Matthew J. Gallo, Esq., Standard Oil Co. (Indiana), 200 East Randolph Dr., P.O. Box 5910–A, Chicago, IL 60680. Issue: If motor gasoline is released from the state set-aside program to a prime supplier pursuant to 10 CFR 211.17(h)(1) and subsequently supplied to a wholesale purchaser-reseller during the updated base period, is that gasoline included in the purchaser's base period volume notwithstanding 10 CFR 211.105(f)? | A–430 |
| Oct. 30, 1979 | Whirlpool Corp., Robert L. Judd, Whirlpool Corp., 2000 U.S. 33 North, Benton Harbor, Mich. 49022. Issue: Is a clothes washer in which water temperature is selected by means of the timer within the definition of "automatic clothes washer" as set forth in 10 CFR 430.2(10), and is such clothes washer a "three temperature selection machine" as defined in § 430, Subpart B, Appendix J? | A–431 |

**Appendix.**—*Lists of Requests for Interpretation Received by the Office of General Counsel—Continued*

[Months of October and November 1979]

| Date received | Name and location of requestor | File No. |
|---|---|---|
| Oct. 30, 1979 | Honeymon Drilling Co., Ltd., A. T. Sindel, President, Honeymon Drilling Co., Ltd., 531 North Portland, P.O. Box 74506, Oklahoma City, Okla. 73147. Issue: Where crude oil was recovered from a property in 1978 in the course of testing, was crude oil "produced" from that property for purposes of the "newly discovered crude oil" provisions of 10 CFR 212.79(b)?. | A-492 |
| Oct. 23, 1979 | United States Steel Corp., Kenneth R. Stiles, Esq., United States Steel Corp., 600 Grant Street, Pittsburgh, Pa. 15230. Issue: Does the sale of an ethylene plant that uses propane result in the transfer of the allocation entitlement to that propane to the new owner of the plant under 10 CFR 211.11, where the former owner continues to own and operate other ethylene plants?. | A-493 |
| Nov. 7, 1979 | The Paul Smith Co., Gary L. Denton, Esq., Obenshain, Hinnant, Dolbeare & Beale, One North Fifth St., Richmond, Va. 23219. Issue: May a reseller that sold motor gasoline to a retailer on May 15, 1973, while supplying it related equipment at the reseller's expense, increase the sales price for the gasoline as a means of imposing a fee for the use of the equipment?. | A-494 |
| Nov. 13, 1979 | Barber Oil Corp., Thomas B. Hudson, Jr., Esq., Baker & Botts, 3000 One Shell Plaza, Houston, Tex. 77002. Issue: Under the provisions of 10 CFR 212.78, must the leases which produce the crude oil that a producer sells to raise tertiary incentive revenue have been entered into by such producer prior to the adoption of the tertiary program, or may the leases be acquired by assignments which were negotiated and executed after adoption of the tertiary program for the specific purpose of transferring reserves of crude oil to the producer for use in financing a tertiary project?. | A-495 |
| Nov. 14, 1979 | State of New Mexico, J. Scott Hall, Esq., State of New Mexico, Commissioner of Public Lands, P.O. Box 1148, Sante Fe, N. Mex. 87501. Issue: Does 10 CFR 210.62 prohibit a producer of crude oil from requiring purchasers to pay for this crude oil more promptly?. | A-496 |
| Nov. 14, 1979 | Knox Industries, Inc., L. E. Sawyer, Jr., Esq., Cotton, Bledsoe, Tighe, Morrow & Dawson, Suite 2000, First National Bank Bldg., Midland, Tex. 79701. Issue: Under 10 CFR 210.62, Part 211, and Part 212, may a producer enter into a processing agreement with a refiner whereby the refiner would refine crude oil on the producer's behalf for a fee?. | A-497 |
| Nov. 14, 1979 | W. C. Hancock Products, Inc. & Harris Oil Co., Archibald M. Mull, III, Esq., Mull & Mull, 715 Crocker Bank Bldg., 1007 Seventh St., Sacramento, Calif. 95814. Issue: Under the provisions of 10 CFR 210.62, 211.11(d) and 211.106(e), is the right to an allocation of motor gasoline deemed to be transferred to the successor in the interest of the retail sales outlet when the prior operator has gone out of business?. | A-498 |
| Nov. 20, 1979 | North Central Oil Corp., Thomas B. Hudson, Jr., Esq., Baker & Botts, 3000 One Shell Plaza, Houston, Tex. 77002. Issue: Where crude oil was recovered from a property in 1978 in the course of testing, was crude oil "produced" from that property for purposes of the "newly discovered crude oil" provisions of 10 CFR 212.79(b)?. | A-499 |
| Nov. 28, 1979 | Juti Enterprises, Inc., W. G. Tyler, Juti Enterprises Inc., 2544 Charlebois Drive Northwest, Calgary, Alberta T2LOT6. Issue: Where a unit that had qualified as a stripper well property was terminated, may crude oil produced from a lease that was formerly a part of the unit qualify as crude oil produced and sold from a stripper well property in accordance with 10 CFR 212.54?. | A-500 |
| Nov. 14, 1979 | National Cooperative Refinery Association, Gordon L. Allott, Jr., Esq., 1104 United Bank Center, 1700 Broadway, Denver, Colo. 80290. Issue: Does the sale of a limited amount of crude oil by a producer to a purchaser immediately after completion of a well establish a supplier-purchaser relationship between the parties in accordance with 10 CFR 211.63?. | A-501 |
| Nov. 21, 1979 | Mobil Chemical Co., Daniel Joseph, Esq., Akin, Gump, Hauer & Feld, 1333 New Hampshie Avenue, NW., Washington, D.C. 20036. Issue: In accordance with the Fuel Use Act and 10 CFR 500.2 or 507.4(e) does the residue off-gas produced by an ethylene plant qualify as an "alternate fuel" which may be used as a boiler fuel in a proposed energy-efficient system?. | A-502 |
| Nov. 27, 1979 | Gerald Dupont Enterprises, Inc., Gerald W. DuPont, Gerald Dupont Enterprises, Inc., 315 Houston Natural Gas Bldg., Houston, Tex. 77002. Issue: Where crude oil was recovered from a property in 1978 in the course of testing, was crude oil "produced" from that property for purposes of the "newly discovered crude oil" provisions of 10 CFR 212.79(b)?. | A-503 |
| Nov. 27, 1979 | McMoRan Exploration Co., Kenneth R. Hahn, McMoRan Exploration Co., McMoRan Tower, 3421 N. Causeway Blvd., P.O. Box 6800, Metairie, La. 70009. Issue: Where crude oil was recovered from a property in 1978 in the course of testing, was crude oil "produced" from that property for purposes of the "newly discovered crude oil" provisions of 10 CFR 212.79(b)?. | A-504 |

[FR Doc. 80-1861 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

## Uranium Hexafluoride; Separative Work Charges, and Base Charges for Natural Uranium

The Department of Energy (DOE) hereby announced changes in the base charges for uranium in the form of uranium hexafluoride ($UF_6$). Accordingly, the notice entitled, "Uranium Hexafluoride: Separative Work Charges, and Base Charges for Natural Uranium," as published in the Federal Register on September 29, 1977, (42 FR 51636) and amended by notice published on November 6, 1978 (43 FR 51700) is further amended by deleting paragraph 2 and inserting the following paragraph in lieu thereof:

2. *Base Charges for Natural Uranium.*

(a) The base charge for natural uranium furnished on other than a short notice, one time basis, is $21.60 per pound of contained $U_3O_8$ in the form of concentrate and $60.46 per kg of contained uranium in the form of $UF_6$.

(b) The base charge for natural uranium furnished on a short notice, one time basis, is $43.74 per pound of contained $U_3O_8$ in the form of concentrate and $118.58 per kg of contained uranium in the form of $UF_6$.

Effective date: This notice is effective January 21, 1980.

Ruth M. Davis,

*Assistant Secretary Resource Applications.*

January 14, 1980.

[FR Doc. 80-1683 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

## Energy Information Administration

### Publication of Alternative Fuel Price Ceilings and Incremental Price Threshold for High Cost Natural Gas

The Natural Gas Policy Act of 1978 (NGPA) (Pub. L. 95-621), signed into law on November 9, 1978, mandated a new framework for the regulation of most facets of the natural gas industry. In general, under Title II of the NGPA, interstate natural gas pipeline companies are required to pass through certain portions of their acquisition costs for natural gas to industrial users in the form of a surcharge. The statute requires that the surcharge placed on the ultimate cost of gas to the industrial facility does not exceed the cost of the fuel oil which the facility could use as an alternative.

Pursuant to Title II of the NGPA of 1978, Section 204(e), the Energy Information Administration (EIA) herewith publishes for the Federal Energy Regulatory Commission (FERC) alternative fuel price ceilings and a high cost gas incremental pricing threshold. These data are effective February 1, 1980, and are to be used by natural gas suppliers to determine the maximum surcharges applicable to the passthrough of certain portions of natural gas acquisition costs.[1]

For further information contact: Frank A. Petrosino or Kenneth Levine, Energy Information Administration, Federal Building, 12th and Pa. Ave., NW., Rm 4121, Washington, D.C. 20461, (202) 633-8558.

#### Section I. Alternative Fuel Price Ceilings

As required by FERC Order No. 50, prices are shown for the 48 contiguous states. The District of Columbia's ceiling is included with the ceiling for the State of Maryland. The price ceiling is expressed in dollars per million British Thermal Units (BTU's). The method used to determine the price ceilings is described in Section IV.

| State | Dollars per million Btu's |
|---|---|
| Alabama | 2.39 |
| Arizona | [1]2.71 |
| Arkansas | [1]2.73 |
| California | 2.75 |
| Colorado | [1]2.44 |
| Connecticut | [1]3.25 |
| Delaware | 3.03 |
| Florida | 2.74 |
| Georgia | [1]2.75 |
| Idaho | [1]2.44 |
| Illinois | [1]2.60 |
| Indiana | [1]2.60 |
| Iowa | [1]2.60 |
| Kansas | [1]2.60 |
| Kentucky | [1]2.60 |
| Louisiana | [1]2.72 |
| Maine | 3.52 |
| Maryland | [1]2.60 |
| Massachusetts | 3.13 |
| Michigan | 2.66 |
| Minnesota | 3.12 |
| Mississippi | [1]2.75 |
| Missouri | 2.40 |
| Montana | [1]2.44 |
| Nebraska | [1]2.60 |
| New Hampshire | 3.43 |
| New Jersey | [1]2.97 |
| New Mexico | [1]2.72 |
| New York | 2.96 |
| Nevada | [1]2.71 |
| North Carolina | 2.93 |
| North Dakota | [1]2.60 |
| Ohio | [1]2.60 |
| Oklahoma | [1]2.72 |
| Oregon | 2.55 |
| Pennsylvania | 2.93 |
| Rhode Island | [1]3.25 |
| South Carolina | [1]2.76 |
| South Dakota | [1]2.60 |
| Tennessee | [1]2.75 |
| Texas | 2.73 |
| Utah | [1]2.44 |
| Vermont | 3.36 |
| Virginia | 2.65 |
| Washington | 2.51 |
| West Virginia | [1]2.60 |
| Wisconsin | 2.85 |
| Wyoming | [1]2.44 |

[1] Region-based price.

#### Section II. Incremental Pricing Threshold for High Cost Natural Gas

The EIA has determined that the volume-weighted price for No. 2 distillate fuel oil landed in the greater New York City Metropolitan area during November 1979 was $32.37 per barrel. In order to establish the incremental pricing threshold for high cost natural gas, as identified in the NGPA, Title II, Section 203 (a)(7), this price was multiplied by 1.3 and converted to its equivalent in millions of BTU's by dividing by 5.8. Therefore, the incremental pricing threshold for high cost natural gas, effective February 1, 1980, is $7.26 per million BTU's.

#### Section III. Data Collection

The FERC, by Order No. 50, issued September 28, 1979, in Docket No. RM79-21, established the basis for

[1] FERC Order No. 49, September 28, 1979; Docket No. RM 79-14.

determining the price ceilings required by the NGPA. FERC also, by Order No. 51, issued in the same docket on the same date, established that only the price paid for No. 6 high sulfur content residual fuel oil would be used to determine the price ceilings until November 1, 1980.

The EIA required the following data from all companies identified by the EIA as sellers of No. 6 high sulfur content (greater than 1 percent sulfur content by weight) residual fuel oil: For the month of November 1979, for each selling price the number of gallons sold to a large industrial user.[3] All reports of volume sold and price were identified by the State into which the oil was sold.

### Section IV. Method Used To Compute Price Ceilings

A description of the method used to calculate price ceilings accompanied the first publication of prices Federal Register, Part VIII, December 20, 1979, pp. 75612–75613). To calculate the prices which will become effective February 1, 1980, (shown in Section I), the adjusted volume-weighed average price of No. 6 high sulfur content residual fuel oil was determined for the reference month, November 1979. For each of the eight FERC regions the percent change of that price from the October, 1979 volume-weighted average price was calculated. The alternative fuel price ceiling for each state published in the Federal Register, Part VIII, December 20, 1979, pp. 75612–75613 was increased or decreased by the percent change of the region in which the state is located to determine the price ceiling shown in Section I of this notice.

### Section V. Listing of States by Region

States were grouped by the FERC to form eight distinct regions as follows:

*Regions A:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
*Region B:* Delaware, Maryland, New Jersey, New York, and Pennsylvania.
*Region C:* Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.
*Region D:* Illinois, Indiana, Kentucky, Michigan, Ohio, West Virginia, and Wisconsin.
*Region E:* Iowa, Kansas, Missouri, Minnesota, Nebraska, North Dakota, and South Dakota.
*Region F:* Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.
*Region G:* Colorado, Idaho, Montana, Utah, and Wyoming.
*Region H:* Arizona, California, Nevada, Oregon, and Washington.

Issued in Washington, D.C., on January 17, 1980.

Albert H. Linden Jr.,

*Deputy Administrator, Energy Information Administration.*

[FR Doc. 80-1899 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

[3] Large Industrial User—A person/firm which purchases No. 6 fuel oil in quantities of 4,000 gallons or greater for consumption in a business, including the space heating of the business premises. Electric utilities, governmental bodies (Federal, State or local) and the military are excluded.

## Economic Regulatory Administration

## Action Taken on Consent Orders

**AGENCY:** Economic Regulatory Administration, DOE.

**ACTION:** Notice of agreements.

**SUMMARY:** The Economic Regulatory Administration (ERA) of the Department of Energy (DOE) hereby gives Notice that Consent Orders were entered into between the Office of Enforcement, ERA and the firms listed below during the month of November 1979. These Consent Orders represent agreements between the DOE and the retail firms listed which involve a reduction of the selling prices for gasoline and/or the posting of the Maximum Lawful Selling Price (MLSP) to be in compliance with the Federal Energy pricing regulations. These Consent Orders are concerned exclusively with the consenting firm's current compliance with the Mandatory Petroleum Allocation and Price Regulations and do not address the possible noncompliance with these regulations prior to the period of the audit. These Consent Orders require consenting firms to come into compliance with legal requirements by reducing selling prices to established lawful level for each grade of gasoline sold, to properly post maximum lawful selling prices, and to properly maintain required records.

For further information regarding these Consent Orders, please contact James C. Easterday, District Manager of Enforcement, 1655 Peachtree Street, NE, Atlanta, Georgia 30309, telephone number 404–881–2661.

| Firm name and address | Violation | | Date |
|---|---|---|---|
| | Pricing | Posting | |
| Woodford Plaza Ashland, Versailles, Ky. | Yes | | 11-1-79 |
| Kenneth F. Renfrow, Micro, N.C. | Yes | Yes | 11-1-79 |
| Billy H. Godwin, Selma, N.C. | | Yes | 11-1-79 |
| Douglas C. Parrish, Selma, N.C. | | Yes | 11-1-79 |
| James Thornsberry, Lexington, Ky. | Yes | | 11-2-79 |
| Hubert Fain, Lexington, Ky | | Yes | 11-2-79 |
| Frank Jordan, Nashville, N.C. | | Yes | 11-2-79 |
| Lanter's Ashland Service, Crestwood, Ky. | Yes | | 11-5-79 |
| Dick's Gulf Service, St. Petersburg, Fla. | Yes | Yes | 11-5-79 |
| Kenneth E. Wells, Versailles, Ky | Yes | | 11-5-79 |
| Vincent Oerther, Frankfort, Ky | Yes | | 11-5-79 |
| Addison's Grocery, Surry, Va | | Yes | 11-6-79 |
| Oak Hill Exxon, Madison, Va | | Yes | 11-6-79 |
| Edgehill Exxon Station, King George, Va. | Yes | Yes | 11-6-79 |
| Beltline Exxon, Lexington, Ky | Yes | | 11-6-79 |
| Reed's Phillips 66, Lexington, Ky | Yes | | 11-6-79 |
| The Country Store, Madison, Va | | Yes | 11-6-79 |
| Ruckersville Amoco, Ruckersville, Va. | | Yes | 11-6-79 |
| Julian W. Moody, Gainesville, Va | Yes | Yes | 11-7-79 |
| John A. Ferlazzo, Warrenton, Va | Yes | Yes | 11-7-79 |
| Avan A. Edwards, Warrenton, Va | Yes | Yes | 11-7-79 |
| David L. Foster, Warrenton, Va | Yes | Yes | 11-7-79 |
| Airway Texaco, Franklin, Va | Yes | | 11-7-79 |
| E. J. Woodward, Fredericksburg, Va. | Yes | | 11-7-79 |
| Spark's Union 76, Jacksonville, Ala. | Yes | Yes | 11-7-79 |
| Roy D. Boyd, Henderson, N.C. | | Yes | 11-7-79 |
| Morris Service Station, Montrose, Va. | Yes | Yes | 11-7-79 |
| Landon Sherwood Hayes, South Hill, Va. | Yes | Yes | 11-7-79 |
| Hilltop Mart, Cropwell, Ala | | Yes | 11-7-79 |
| Sak's Union 76, Anniston, Ala | Yes | Yes | 11-7-79 |
| Eugene Beale & P. Griffith, Warrenton, Va. | | Yes | 11-7-79 |
| Vernon L. Barron, Warrenton, Va | | Yes | 11-7-79 |
| Bobby Burgess, Fredericksburg, Va. | Yes | | 11-7-79 |
| Colleen Exxon, Lovingston, Va | Yes | Yes | 11-7-79 |
| Bradley's Amoco, Lovington, Va | Yes | | 11-7-79 |
| Cavalier Auto Service, Franklin, Va | Yes | | 11-7-79 |
| Roberts Standard, LaGrange, Ky | Yes | | 11-7-79 |
| Rio Road Gulf, Charlottesville, Va. | Yes | Yes | 11-7-79 |
| Coffey's Standard, Fairdale, Ky | Yes | | 11-8-79 |
| Stapp's Mobil Oil, Holly Hill, Fla | | Yes | 11-8-79 |
| Ralph W. Watts, Chance, Va | Yes | Yes | 11-8-79 |
| Jimmy's Interstate Exxon, Chelbyville, Ky. | Yes | | 11-8-79 |
| Linwood Hollowell, Norfolk, Va | Yes | | 11-8-79 |
| James Arruda, Fredericksburg, Va. | Yes | | 11-8-79 |
| Herbert A. Pearce, South Hill, Va | | Yes | 11-8-79 |
| Pasquale Cappabianca, Orlando, Fla. | Yes | Yes | 11-8-79 |
| Hamilton Quick Stop, Athens, Ala | | Yes | 11-8-79 |
| William Poniatowski, Daytona Beach Shores, Fla. | | Yes | 11-8-79 |
| Bobby R. Baltzegar, West Columbia, S.C. | Yes | | 11-8-79 |
| Casey's 76, Columbia, S.C. | Yes | Yes | 11-8-79 |
| Smith's Grocery, Prospect, Tenn. | | Yes | 11-8-79 |
| Lewis G. Richardson, Norlina, N.C. | Yes | | 11-8-79 |
| Anthony L. Scogno, Fairfax, Va | Yes | Yes | 11-8-79 |
| Billy B. Juornall, Middleburg, Va | Yes | Yes | 11-8-79 |
| Elinor Village Chevron, Ormond Beach, Fla. | Yes | Yes | 11-8-79 |
| Bruce Sharpe, Ladysmith, Va | Yes | | 11-9-79 |
| Ronald R. Evans, Aldie, Va | Yes | Yes | 11-9-79 |
| Huguenot Exxon Serv., Richmond, Va. | Yes | Yes | 11-14-79 |
| Central Part Standard, Birmingham, Ala. | | Yes | 11-14-79 |
| Dabkowski Minit Mart, Campbellsburg, Ky. | Yes | | 11-14-79 |
| Rich Service Station, Bessemer, Ala. | | Yes | 11-14-79 |
| Tidwell Country Store, Norge, Va | Yes | Yes | 11-14-79 |
| Valley Road Standard, Bessemer, Ala. | Yes | Yes | 11-14-79 |
| J. P. Andrews, Durham, N.C. | | Yes | 11-15-79 |
| Roy E. Dobbins, Atlanta, Ga. | Yes | | 11-15-79 |
| Ronald Whitley, Durham, N.C. | | Yes | 11-15-79 |
| Franklin 66, Franklin, Va | Yes | | 11-15-79 |
| Hillandale Mobil, Durham, N.C. | Yes | Yes | 11-15-79 |
| John Cook, Atlanta, Ga. | Yes | Yes | 11-15-79 |
| Cutchons Amoco Serv., Franklin, Va. | | Yes | 11-15-79 |
| Union 76 Truck Plaza, Glencoe, Ky. | Yes | | 11-15-79 |
| Redd Garvin Gulf, Cayce, S.C. | Yes | Yes | 11-15-79 |
| Benjamin G. Fuller, Durham, N.C. | | Yes | 11-15-79 |
| Guess Rd. Amoco, Durham, N.C. | | Yes | 11-15-79 |
| Commander's Exxon, Norfolk, Va | Yes | | 11-16-79 |
| Speed Car Wash, Inc., Birmingham, Ala. | Yes | Yes | 11-16-79 |
| McLelland Service Sta., Bessemer, Ala. | Yes | Yes | 11-16-79 |
| Mike Welchel, Atlanta, Ga. | Yes | | 11-16-79 |
| B. W. Walker, Henerson, N.C. | | Yes | 11-16-79 |
| R. E. Knight, Smyrna, Ga. | Yes | | 11-16-79 |
| Pocahontas Amoco Service, Hampton, Va. | Yes | | 11-16-79 |
| Wilson Harrison, Hampton, Va. | Yes | | 11-16-79 |
| 6th Ave. Service Station, Birmingham, Ala. | | Yes | 11-19-79 |

| Firm name and address | Violation | | Date |
|---|---|---|---|
| | Pricing | Posting | |
| Melvin Trammell, Richmond, Va | Yes | | 11-19-79 |
| Hamson's Service Center, Hampton, Va. | Yes | | 11-19-79 |
| Harbison Standard Station, Birmingham, Ala. | Yes | Yes | 11-19-79 |
| Joe Hyche Chevron, Bessemer, Ala. | Yes | Yes | 11-19-79 |
| Central Park Chevron, Birmingham, Ala. | Yes | Yes | 11-19-79 |
| Jeraco, Richmond, Va | | Yes | 11-20-79 |
| Jim's Exxon, Daytona Beach, Fla | Yes | Yes | 11-21-79 |
| Keith Chevron, Fultondale, Ala | | Yes | 11-21-79 |
| Highland Park Exxon, Richmond, Va. | Yes | | 11-21-79 |
| Royal Service, Birmingham, Ala | Yes | | 11-21-79 |
| Bailey Service Station, Gardendale, Ala. | Yes | | 11-21-79 |
| James W. Head, Pensacola, Fla | Yes | | 11-21-79 |
| Ray C. Keith, Pensacola, Fla | Yes | | 11-21-79 |
| Green's Standard Station, Birmingham, Ala. | Yes | | 11-21-79 |
| Yoo's Exxon, Norfolk, Va | Yes | Yes | 11-21-79 |
| Chevron Subservice, Birmingham, Ala. | | Yes | 11-23-79 |
| Cumberland Standard, Atlanta | Yes | Yes | 11-26-79 |
| Dale Wiechman, Okeechobee, Fla. | Yes | Yes | 11-26-79 |
| 6th Avenue Amoco, North Miami, Fla. | Yes | Yes | 11-27-79 |
| New Interama Service Sta., N. Miami Beach, Fla. | Yes | Yes | 11-27-79 |
| Alan's Shell Service, South Miami, Fla. | Yes | Yes | 11-27-79 |
| Isis Airport Gulf Ser., Miami, Fla | Yes | Yes | 11-27-79 |
| Daniel Simpson, St. Petersburg, Fla. | Yes | Yes | 11-27-79 |
| Curtis Partway 66, Miami, Fla | Yes | Yes | 11-27-79 |
| J. C. Penney Store #1004-1, Tampa, Fla. | Yes | | 11-27-79 |
| Walk's Exxon, Lake City, Fla | Yes | | 11-28-79 |
| Airport Chevron, Tampa, Fla | Yes | Yes | 11-28-79 |
| Norwood Shell Service, Miami, Fla | Yes | Yes | 11-28-79 |
| Robin Shiver, Mayo, Fla | Yes | | 11-28-79 |
| Fike's Amoco, Lake City, Fla | Yes | | 11-28-79 |
| Placeres Texaco, Miami, Fla | Yes | Yes | 11-28-79 |
| Batallia's Chevron, Opa Locka, Fla | Yes | Yes | 11-28-79 |
| Petes Quality Amoco, St. Petersburg, Fla. | Yes | Yes | 11-28-79 |
| Gibson's Exxon, St. Petersburg, Fla. | Yes | Yes | 11-29-79 |
| Raley's Exxon, Tampa, Fla | Yes | | 11-29-79 |
| Paul Durden's Chevron, Lake City, Fla. | Yes | | 11-29-79 |
| Dan's Standard Service, Clearwater, Fla. | Yes | | 11-29-79 |
| B & D Shell, Clearwater, Fla | Yes | Yes | 11-29-79 |
| Flippen Exxon, McDonough, Ga | Yes | | 11-30-79 |

Issued in Atlanta, Ga., on the 8th day of January, 1980.

James C. Easterday,

*District Manager.*

Approved for signature.

Leonard F. Bittner,

*Chief Enforcement Counsel.*

[FR Doc. 80-1864 Filed 1-18-80; 8:45 am]

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[ERA Docket No. 79-24-NG]

## Northern Natural Gas Co.; Application To Import Natural Gas Into the United States From Canada

**AGENCY:** Department of Energy, Economic Regulatory Administration.

**ACTION:** Notice of Receipt of Application and Invitation To Submit Comments and Petitions to Intervene in the Proceeding.

**SUMMARY:** The Economic Regulatory Administration (ERA) of the Department of Energy (DOE) gives notice of receipt of an application under Section 3 of the Natural Gas Act from Northern Natural Gas Company (Northern) to import natural gas from Consolidated Natural Gas Limited (Consolidated), of Alberta, Canada.

**DATES:** Petitions to intervene, comments, and requests for hearing: February 10, 1980.

**FOR FURTHER INFORMATION CONTACT:**

Mr. Finn K. Neilsen, Director, Import/Export Division, 2000 M Street, NW., Room 4201, Washington, D.C. 20461. Telephone (202) 254-8202.

Mr. Martin S. Kaufman, Deputy Assistant General Counsel for International Trade and Emergency Preparedness, 1000 Independence Avenue, SW., Forrestal Building, Room 5E064, Washington, D.C. 20585, telephone (202) 252-2918.

### Background

On October 11, 1979, Northern Natural Gas Company, 2223 Dodge Street, Omaha, Nebraska 68102 filed an application (ERA Docket No. 106) pursuant to Section 3 of the Natural Gas Act for authorization to import up to 200,000 thousand cubic feet (Mcf) of natural gas per day and 73,000,000 Mcf per year, with additional daily volumes delivered, if available, on a best efforts basis. Under this proposal, gas deliveries will commence November 1, 1980, and continue through October 31, 1994. Such gas will be purchased by Northern from Consolidated. The details of the proposal are more fully set forth in the application on file with the ERA. The application is open to public inspection in ERA Public Docket Room at 2000 M Street, NW., Washington, D.C., Room No. B-120, between the hours of 8:00 a.m. to 4:30 p.m., Monday through Friday, except for Federal holidays.

The price of the gas will be the international border price as set from time to time by the National Energy Board (NEB) of Canada, which price currently is $3.45 (U.S.) per MMBtu.

Northern proposes that the imported natural gas will be delivered by TransCanada Pipe Lines Limited (TransCanada) to Great Lakes Gas Transmission (Great Lakes) at an existing point of interconnection on the International Boundary near Emerson, Manitoba. Great Lakes will transport and redeliver such gas to Northern at a point of interconnection between Great Lakes' system and Northern's systems near Carlton, Minnesota and/or by mutual agreement of the parties at the points of interconnection between the facilities of Great Lakes and Michigan Wisconsin Pipeline Company near Fortune Lake and Farwell, Michigan.

The ERA hereby invites petitions for intervention, comments on the application in ERA Docket No. 79-24-NG and requests for hearing to be filed with the Economic Regulatory Administration, Room 4201, 2000 M Street, NW., Washington, D.C. 20461, in accordance with the requirements of the rules of practice and procedure (18 CFR 1.8) and the Regulations under the Natural Gas Act (18 CFR 157.10). Such petitions for intervention, comments, or requests for hearing should be marked "ERA Docket No. 79-24-NG" on the first page and envelope, and will be accepted for consideration if filed no later than 4:30 p.m., February 10, 1980.

Any person wishing to become a party to the proceeding or to participate as a party in any hearing which may be convened therein must file a petition to intervene in accordance with the above-mentioned rules.

Pursuant to the authority contained in, and subject to the jurisdiction conferred upon the ERA by Section 3 of the Natural Gas Act and the rules of practice and procedure, a formal hearing will not be held on this application if no petition to intervene is filed within the required time, or if the ERA on its own review of the matter finds that a grant of the approval is in the public interest. However, if during the appropriate comment period a request for such hearing is timely filed by an intervener and is granted by ERA, or if the ERA on its own motion believes that such a hearing is required, further notice of such hearing will be duly given.

Issued in Washington, D.C., on January 16, 1980.

Doris J. Dewton,

*Assistant Administrator, Office of Petroleum Operations, Economic Regulatory Administration.*

[FR Doc. 80-1860 Filed 1-18-80; 8:45 am]

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## Refiners Crude Oil Allocation Program; Supplemental Notice for Allocation Period of October 1, 1979, Through March 31, 1980, and Notice of Issuance of Emergency Allocations

The notice specified in 10 CFR 211.65(g) of the refiners' crude oil allocation (buy/sell) program for the allocation period of October 1, 1979, through March 31, 1980, was issued September 21, 1979 (44 FR 55943, September 28, 1979). Subsequent to the publication of that Notice, the Economic Regulatory Administration (ERA) of the Department of Energy (DOE) assigned emergency allocations pursuant to 10 CFR 211.65(c)(2) to a number of small refiners and issued supplemental buy/

sell lists on October 17, 1979 (44 FR 60786, October 22, 1979), November 6, 1979 (44 FR 65625, November 14, 1979), December 7, 1979 (44 FR 72625, December 14, 1979), and December 28, 1979 (45 FR 1439, January 7, 1980). The ERA hereby issues a fifth supplemental buy/sell list for the allocation period of October 1, 1979, through March 31, 1980, which sets forth an allocation for expanded refining capacity assigned pursuant to 10 CFR 211.65(a)(1)(iii) and a new emergency allocation assigned pursuant to 10 CFR 211.65(c)(2), as amended on April 27, 1979 (44 FR 26060, May 4, 1979).

The supplemental buy/sell list for the allocation period October 1, 1979, through March 31, 1980, is set forth as an appendix to this notice. The list includes the names of the small refiners granted allocations and their eligible refineries; the quantity of crude oil each refiner is eligible to purchase; the fixed percentage share for each refiner-seller; and the additional sales obligation of each refiner-seller, which reflects each refiner-seller's sales obligation for the allocations listed herein.

The allocations for the small refiners on the supplemental buy/sell list were determined in accordance with 10 CFR 211.65(a)(1)(iii) and 10 CFR 211.65(c)(2). Sales obligations for refiner-sellers were determined in accordance with 10 CFR 211.65 (e) and (f).

The buy/sell list covers PAD Districts I through V, and amounts shown are in barrels of 42 gallons each, for the specified period. Pursuant to 10 CFR 211.65(f), each refiner-seller shall offer for sale during an allocation period, directly or through exchanges to refiner-buyers, a quantity of crude oil equal to that refiner-seller's sales obligation plus any volume that the ERA directs the refiner-seller to sell pursuant to 10 CFR 211.65(j).

Pursuant to 10 CFR 211.65(h), each refiner-buyer and refiner-seller is required to report to ERA in writing or by telegram the details of each transaction under the buy/sell list within forty-eight hours of the completion of arrangements therefore. Each report must identify the refiner-seller, the refiner-buyer, the refineries to which the crude oil is to be delivered, the volumes of crude oil sold or purchased, and the period over which the delivery is expected to take place.

The procedures of 10 CFR 211.65(j) provide that if a sale is not agreed upon subsequent to the date of publication of this notice, a refiner-buyer that has not been able to negotiate a contract to purchase crude oil may request that the ERA direct one or more refiner-sellers to sell a suitable type of crude oil to such refiner-buyer. Such request must be received by the ERA no later than 20 days after the publication date of this supplemental buy/sell notice. Upon such request, the ERA may direct one or more refiner-sellers that have not completed their required sales to sell crude oil to the refiner-buyer.

In directing refiner-sellers to make such sales, ERA will consider the percentage of each refiner-seller's sales obligation for the allocation period that has been sold as reported pursuant to § 211.65(h), as well as the refiner-seller or sellers that can best be expected to consummate a particular directed sale. If, in ERA's opinion, a valid directed sale request cannot reasonably be expected to be consummated by a refiner-seller that has not completed all or substantially all of its sales obligation for the allocation period, the ERA may issue one or more directed sales orders that would result in one or more refiner-sellers selling more than their published sales obligations for that allocation period. In such cases, the refiner-seller or sellers will receive a barrel-for-barrel reduction in their sales obligations for the next allocation period pursuant to 10 CFR 211.65(f)(3)(ii).

If the refiner-buyer declines to purchase the crude oil specified by ERA, the rights of that refiner-buyer to purchase that volume of crude oil are forfeited during this allocation period, provided that the refiner-buyer or refiner-sellers have fully complied with the provision of 10 CFR 211.65.

Refiner-buyers making requests for directed sales must document their inability to purchase crude oil from refiner-sellers by supplying the following information to ERA:

(i) Name of the refiner-buyer and of the person authorized to act for the refiner-buyer in buy/sell program transactions.

(ii) Name and location of the refineries for which crude oil has been sought, the amount of crude oil sought for each refinery, and the technical specifications of crude oils that have historically been processed in each refinery.

(iii) Statement of any restrictions, limitations, or constraints on the refiner-buyer's purchases of crude oil, particularly concerning the manner of time of deliveries.

(iv) Names and locations of all refiner-sellers from which crude oil has been sought under the buy/sell notice, the refineries for which crude oil has been sought, and the volume and specifications of the crude oil sought from each refiner-seller.

(v) The response of each refiner-seller to which a request to purchase crude oil has been made, and the name and telephone number of the individual contacted at each such refiner-seller.

(vi) Such other pertinent information as ERA may request.

All reports and applications made under this notice should be addressed to: Chief, Crude Oil Allocation Branch, 20th Street Postal Station, P.O. Box 19028, Washington, D.C. 20036.

Section 211.65(c)(2)(ii) states in part that applications for emergency allocations "must be submitted by the fifteenth day of the month prior to the month(s) for which an allocation is sought." This provision was intended to permit ERA to receive applications and issue emergency allocations in a timely fashion. Recently, ERA has had difficulty meeting this goal because of the manner in which some applications for emergency allocations have been filed. Therefore, ERA believes it appropriate to offer the following comments on the emergency crude oil application process in the hope that they will clarify the application process for those applying for emergency allocations.

First, most applications have not been received in the Crude Oil Allocation Branch until the fifteenth of the month. The fifteenth of the month is meant as a deadline not a filing date. It is desirable for refiners to file their applications earlier than the fifteenth of the month, which would permit ERA to begin processing applications sooner. Except in unusual circumstances, ERA would expect applications to be filed by the tenth of the month. It should be noted that ERA would generally consider applications filed earlier than the fifth of a month to have been filed too early to present an accurate picture of a refiner's crude oil supply for succeeding months.

Second, applications should be completed by the fifteenth of the month in which they are filed. Applications that are not substantially complete by the fifteenth of the month will be dismissed with prejudice.

Third, ERA requires all applicants for emergency allocations to serve copies of their applications on refiner-sellers. Comments regarding an application will be accepted if received within eight days of receipt of the application. Applicants are required to serve copies of their application (and any amendments thereto) on refiner-sellers simultaneously with the filing of the application with ERA; that is, *refiner-sellers must receive their copies of emergency applications on the same date the application is filed with ERA.* Refiner-sellers must submit their comments on the applications to the Crude Oil Allocation Branch within

eight days of the refiner-sellers' receipt of the application, or no later than the twenty-third of the month in which the application is filed. If the fifteenth or the twenty-third of the month falls on a weekend or holiday, the deadline would be the next working day. (The name and address of the contact for each refiner-seller is listed in the appendix.)

As has been stated in previous notices, if an applicant claims confidentiality for any of the information contained in its application, the basis for the claim must be clearly stated. ERA does not consider the names of potential suppliers contacted in unsuccessful attempts to obtain crude oil or offers of crude oil that the applicant has rejected to be proprietary.

Finally, ERA emphasizes that an application for an emergency allocation must contain a *detailed* statement as to why the applicant believes it has exhausted all supply possibilities. Applications which fail to make this statement will be dismissed with prejudice.

Copies of the decisions and orders assigning the emergency allocations listed herein may be obtained from: Economic Regulatory Administration, Public Information Office, 2000 M Street, NW., Rm. B110, Washington, D.C. 20461 (202) 634–2170.

This notice is issued pursuant to Subpart G of DOE's regulations governing its administrative procedures and sanctions, 10 CFR Part 205. Any person aggrieved hereby may file an appeal with DOE's Office of Hearings and Appeals in accordance with Subpart H of 10 CFR Part 205. Any such appeal shall be filed on or before February 20, 1980.

Issued in Washington, D.C., January 14, 1980.

Doris J. Dewton,

*Assistant Administrator, Office of Petroleum Operations, Economic Regulatory Administration.*

## Appendix

The Buy/Sell list for the period October 1, 1979, through March 31, 1980, is hereby amended to reflect an allocation for a refinery expansion and an emergency allocation for the month of Janaury 1980. The amended list sets forth the name of each refiner-seller, the additional volumes of crude oil that each such refiner-seller is required to offer for sale to small refiners, a refinery expansion allocation, and an emergency allocation for January 1980. Also included in the appendix is a list of names and addresses of the persons designated by refiner-sellers to receive service of copies of applications for emergency crude oil allocations.

**Crude Oil Allocation Program Additional Sales Obligations for Expanded Capacity and Emergency Allocation October 1, 1979–March 31, 1980**

| Refiner-sellers | Share [1] | Additional sales obligation |
|---|---|---|
| Amoco Oil Co. | .105 | 19,147 |
| Atlantic Richfield Co. | .077 | 14,069 |
| Chevron U.S.A., Inc. | .101 | 18,556 |
| Cities Service Co. | .025 | 4,436 |
| Continental Oil Co. | .004 | 731 |
| Exxon Co., U.S.A. | .089 | 16,209 |
| Getty Refining & Marketing Co. | .021 | 3,878 |
| Gulf Refining & Marketing Co. | .091 | 16,655 |
| Marathon Oil Co. | .022 | 4,178 |
| Mobil Oil Corp. | .094 | 17,196 |
| Phillips Petroleum Co. | .041 | 7,563 |
| Shell Oil Co. | .113 | 20,769 |
| Sun Co. | .055 | 10,145 |
| Texaco Inc. | .114 | 20,766 |
| Union Oil Co. of California | .046 | 8,356 |
| Total additional sales obligation | | 182,787 |

[1] All Refiner-Sellers' percentage shares have been changed to reflect the Continental Oil Company and Exxon Company, U.S.A. Decision and Order dated March 20, 1979. Case numbers are FEX-0184 and FEX-0185.

## Allocation for Refinery Expansion

An allocation for expanded capacity of 80,280 barrels has been granted to Giant Industries, Inc., for its Bloomfield, New Mexico, refinery for the October 1, 1979, through March 31, 1980, allocation period.

**Emergency Allocation for January 1980**

| Refiner | Refinery location | January 1980 allocation (barrels) |
|---|---|---|
| Allied Materials | Stroud, Okla. | 102,517 |

**Additional Allocations For the October 1, 1979–March 31, 1980, Allocation Period**

| | |
|---|---|
| Emergency Allocation (January) | 102,517 |
| Refinery Expansion (October 1979—March 1980) | 80,280 |
| Total allocations | 182,797 |

## Contact List for Refiner-Sellers

Matthew J. Gallo, Esq., Amoco Oil Co., 200 E. Randolph Drive, P.O. Box 5910–A, Chicago, Ill. 60680.
H. L. Hayes, Atlantic Richfield Co., 515 South Flower St., P.O. Box 2679 TA, Los Angeles, CA 90071.
K. L. Roberts, Chevron U.S.A., Inc. 575 Market St., San Francisco, CA 94105.
W. C. McCollough, Cities Service Oil Company, P.O. Box 300 Tulsa, OK 74102.
John W. Mills, Conoco, P.O. Box 2197, Houston, TX 77001.
Barbara Finney, Exxon, U.S. A., P.O. Box 2180, Houston, TX 77001.
Eugene F. Gervino, Esq., Getty Refining & Marketing Co., P.O. Box 1650, Tulsa, OK 74102.
L. G. Armel, Gulf Oil Corp., Gulf Bldg., P.O. Box 2001, Houston, TX 77001.
Victor Beghini, Vice President, Marathon Oil Company, 539 South Main Street, Findlay, Ohio 45840.
W. L. Fanning, Jr., Mobil Oil Corp., 150 East 42nd St., New York, N.Y. 10017.
R. D. Gooley, Phillips Petroleum Co., Phillips Bldg., Bartlesville, OK 74004.
G. E. Carnahan, Shell Oil Co., P.O. Box 2463, Houston, TX 77001.
Tom J. Collins, Sun Oil Company, Mgr., Coordination Crude Oil, 1608 Walnut St., Philadelphia, Pa. 19103.
Paul D. McNaughton, Texaco, Inc., P.O. Box 52332, Houston, TX 77052.
Howard Johnson, Texaco, Inc., c/o Legal Department, 2000 Westchester Ave., White Plains, N.Y. 10650.
Gus Williams, Union Oil Company of Calif., 1650 East Golf Road, Schaumburg, Ill. 60196.

[FR Doc. 80-1862 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

## Extension of Time for Issuance of Final Orders Granting or Denying Petitions for Temporary Public Interest Exemptions Pursuant to the Powerplant and Industrial Fuel Use Act of 1978; Correction

**AGENCY:** Economic Regulatory Administration, Department of Energy.

**ACTION:** Correction.

**SUMMARY:** This notice will serve to correct 45 FR 78 published on January 2, 1980. The correct date for submittal of written comments to ERA is no later than January 31, 1980. Therefore, ERA has extended the period for issuance of final orders until February 27, 1980.

Issued in Washington, D.C. on January 15, 1980.

Robert L. Davies,

*Assistant Administator, Office of Fuels Conversion, Economic Regulatory Administration.*

[FR Doc. 80-1866 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

## Federal Energy Regulatory Commission

**[Docket No. GP80–19]**

## Panhandle Eastern Pipeline Co.; Notice of Third Party Protest [1]

Issued: January 10, 1980.

Take notice that in accordance with the procedures established by the Federal Energy Regulatory Commission (Commission) in Order No. 23–B,[2] and "Order on Rehearing of Order No. 23–

[1] The term "third party protest" refers to a protest filed by a party who is not a party to the contract which is protested.

[2] "Order Adopting Final Regulations and establishing Protest Procedure," Docket No. RM79–22, issued June 21, 1979.

B," [3] the staff of the Commission protested on November 5, 1979, the assertion by the Panhandle Eastern Pipeline Company (Panhandle) and certain producers that the contracts identified in its protest constitute contractual authority for the producers to charge and collect any applicable maximum lawful price under the Natural Gas Policy Act of 1978 (NGPA).

Staff stated that the language of the contracts contained in Appendix A does not constitue authority for the producer to increase prices to the extent claimed by Panhandle in its evidentiary submission.

Take further notice that the State of Michigan and the Michigan Public Service Commission (hereinafter jointly referred to as Michigan) jointly filed a third-party protest on November 5, 1979. Michigan protests that the contracts listed in Appendix B (all the contracts contained in Panhandle's evidentiary submission) do not constitute contractual authority for the producers to charge and collect NGPA prices for gas sold to Panhandle. Michigan's position has been adopted and incorporated in protest filed November 5, 1979, by associated Gas Distributors (AGD), the Kansas State Corporation Commission (Kansas).

Any person, other than the pipeline and the seller, desiring to be heard or to make any response with respect to those protests should file with the Commission, on or before January 24, 1980, a petition to intervene in accordance with 18 CFR 1.8; after that date these protests will be forwarded to the Commission's Chief Administrative Law Judge, for disposition in accordance with Order No. 23–B. The seller need not file for intervention because under 18 CFR 154.94(j)(4)(ii), the seller in the first sale is automatically jointed as a party.

Kenneth F. Plumb,

*Secretary.*

Appendix A

| Producer | Rate schedule No. or contract date |
|---|---|
| Max E. Banks | 4-30-71 |
| Beaver Mesa Exploration Co | 11-4-70 |
| William Gruenerwald Assoc. *et al.* | 4-30-71 |
| William Gruenerwald Assoc. *et al.* | 1-31-72 |
| Macey & Mershon Oil Inc. | 11-4-70 |
| Colorado Energy Corp | 3-13-75 |
| Husky Oil Co | 2-13-78 |
| Macey & Mershon Oil Inc. | 10-11-71 |
| Marlin Oil Co | 10-11-71 |
| Martin Oil Services, Inc. | 3-13-75 |
| Martin Oil Services, Inc. | 7-15-71 |
| Neilson Enterprises Inc. *et al.* | 10-11-71 |
| Neilson Enterprises Inc. *et al.* | 10-11-77 |
| Petroleum Inc. | 11-11-65 |
| Vessels Oil & Gas Co. | 7-15-71 |

[3] Docket No. RM79–22, issued August 6, 1979.

Appendix A—Continued

| Producer | Rate schedule No. or contract date |
|---|---|
| Worldwide Energy Corp. | 6-20-72 |
| Appleton Oil Co. *et al.* | 8-19-70 |
| Beren Corp. | 4-23-71 |
| Graham Michaelis Drilling Co. | 5-25-70 |
| Inexco Oil Co. | 5-30-72 |
| Inexco Oil Co. | 2-24-75 |
| F. W. Mallonee | 2-25-70 |
| Okmar Oil Co. *et al.* | 4-23-71 |
| A. C. Richards | 4-16-69 |
| A. C. Richards | 4-24-69 |
| Teal Petroleum Co. | 11-14-75 |
| Beaver Mesa Exploration Co | 7-30-71 |
| Beaver Mesa Exploration Co | 8-1-71 |
| Davis Oil Co. *et al.* | 3-2-72 |
| Universal Resources Corp. | 3-2-72 |
| Yale Oil Association | 2-5-69 |
| Montgomery Exploration Co. | 12-15-77 |
| Montgomery Exploration Co. | 4-3-67 |
| Bob F. Allee | 2-1-78 |
| Argonant Energy, Inc., *et al.* | 6-22-77 |
| Argonant Energy, Inc., *et al.* | 7-20-78 |
| Argonant Energy, Inc., *et al.* | 7-24-78 |
| Argonant Energy, Inc., *et al.* | 8-23-78 |
| Barnett Oil Company | 12-1-76 |
| Clyde Beymer, Jr. & C. E. Beyme | 10-20-78 |
| Blair Oil Company | 12-1-76 |
| John P. Castlemen, Jr. | 5-19-77 |
| Blair Oil Co. | 7-3-78 |
| Blair Oil Co. | 8-7-78 |
| Gail B. Gore | 3-29-78 |
| Herman Geo Kaiser *et al.* | 4-26-65 |
| Russell v. Johnson Jr. *et al.* | 10-4-62 |
| Russell v. Johnson Jr. *et al.* | 5-26-64 |
| Maguire Oil Co. Opr. *et al.* | 5-30-78 |
| Western Gas Processors | 1-1-78 |
| R. J. Patrick | 12-30-66 |
| Edwin L. Cox | 9-15-60 |
| Thomas K. Hendrick *et al.* | 9-15-60 |
| Okmar Oil Co. *et al.* | 10-13-75 |
| Sierra Petroleum Co. Inc. | 9-11-61 |
| Tomlinson Oil Co. Inc. *et al.* | 9-12-60 |
| D. R. Lauck Oil Co. Inc. | 11-25-59 |
| Mountain Petroleum Corp. | 1-30-74 |
| Argonaut Energy Inc. *et al.* | 10-12-73 |

[FR Doc. 80-1414 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. GP80-19]

## Panhandle Eastern Pipeline Co.; Notice of Third-Party Protests [1]

Issued: January 10, 1980.

Take notice that in accordance with the procedures established by the Federal Energy Regulatory Commission (Commission) in Order No. 23–B [2], and "Order on Rehearing of Order No. 23–B," [3] the staff of the Commission protested on October 15, 1979, the assertion by the Panhandle Eastern Pipeline Company (Panhandle) and certain producers that the contracts identified in its protest constitute contractual authority for the producers to charge and collect any applicable maximum lawful price under the Natural Gas Policy Act of 1978 (NGPA).

Staff stated that the language of the contracts contained in Appendix A of this notice does not constitute authority for the producer to increase prices to the extent claimed by Panhandle in its evidentiary submission.

Any person, other than the pipeline and the seller, desiring to be heard or to make any response with respect to these protests should file with the Commission, on or before January 24, 1980, a petition to intervene in accordance with 18 CFR 1.8. The seller need not file for intervention because under 18 CFR 154.94(j)(4)(ii), the seller in the first sale is automatically joined as a party.

Kenneth F. Plumb,

*Secretary.*

Appendix A

| Producer | Rate schedule No. or contract date |
|---|---|
| Cabot Corp | 33/7-25-58 |
| Gulf Oil Corp | 167/4-21-59 |
| Diamond Shamrock Corp | 30/11-19-53 |
| Helmerich & Payne, Inc | 6/9-1-59 |
| Sohio Natural Resources | 61/11-13-57 |
| J. M. Huber Corp | 70/3-3-66 |
| Texaco Inc | 559/4-10-63 |
| Pan Eastern Exploration Co | 1/3-24-71 |
| Do | 3/3-24-71 |
| Do | 7/3-24-71 |
| Do | 5/3-24-71 |
| Anadarko Production Co | 44/5-22-61 |
| Do | 41/4-5-61 |
| Do | 39/12-1-60 |
| Do | 25/9-22-59 |
| Do | 109/5-17-65 |
| Do | 114/9-8-65 |
| Do | 137/7-21-70 |
| Do | 167/12-6-60 |
| Do | 197/5-3-60 |
| Do | 195/1-27-61 |
| Do | 209/12-15-59 |
| Do | 222/1-1-75 |
| Do | 107/6-25-64 |
| Texaco, Inc | 164/6-1-77 |
| Anadarko Production Co | 238/8-26-77 |
| Cabot Corporation | 47/1-19-60 |
| Southland Royalty Co | 9-21-78 |
| Gulf Oil Corp | 1-30-57 |
| Ashland Exploration, Inc. *et al* | 141/5-25-60 |
| Ashland Exploration, Inc. *et al* | 125/4-10-60 |
| Anadarko Production Co | 216/9-1-59 |
| Anadarko Production Co | 244/4-25-78 |
| Anadarko Production Co | 240/10-31-77 |
| Anadarko Production Co | 234/4-11-77 |
| J. M. Huber Corp | 4/9-21-35 |
| Anadarko Production Co | 36/8-15-60 |
| Amoco Production Co | 743/4-1-77 |
| Amoco Production Co | 743/4-1-77 |
| Amoco Production Co | 629/11-13-57 |
| Amoco Production Co | 194/1-18-57 |
| Texaco, Inc | 351/3-1-65 |
| Texaco, Inc | 289/2-7-62 |
| Texaco, Inc | 142/11-1-55 |
| Southland Royalty Co | 41/11-3-77 |
| Mesa Petroleum Co. *et al* | 64/5-9-77 |
| Gulf Oil Corp | 523/7-28-77 |
| Diamond Shamrock Corp | 66/11-7-77 |
| Getty Oil Co | 419/1-2-78 |
| Cities Service Co | 456/6-22-77 |
| Cities Service Co | 438/10-11-78 |
| Diamond Shamrock Corp | 81/7-18-77 |
| Anadarko Production Co | 239/9-12-77 |
| J. M. Huber Corp | 9/6-29-51 |
| Anadarko Production Co | 178/1-31-72 |
| Anadarko Production Co | 201/9-5-74 |
| Texas Pacific Oil Co., Inc | 102/3-2-72 |
| M. B. Armer | 3/12-18-50 |
| Gulf Oil Corp | 513/1-31-72 |
| Gulf Oil Corp | 100/6-14-57 |

[1] The term "third-party protest" refers to a protest filed by a party who is not a party to the contract which is protested.

[2] "Order Adopting Final Regulations and Establishing Protest Procedure," Docket No. RM79–22, issued June 21, 1979.

[3] Docket No. RM79–22, issued August 6, 1979.

Appendix A—Continued

| Producer | Rate schedule No. or contract date |
|---|---|
| Champlin Petroleum Co | 105/11-11-69 |
| Anadarko Production Co | 65 |
| Anadarko Production Co | 61 |
| Anadarko Production Co | 22 |
| Cities Service Co | 460 |
| Cities Service Co | 471 |
| Southland Royalty Co | 32 |
| Sun Gas Co | 444 |
| Texaco, Inc | 473 |
| Gulf Oil Corp | 409 |
| Carl M. Archer | 10-7-69 |
| Argonaut Energy Inc. *et al* | 12-23-74 |
| T. D. and E. J. Bailey | 12-22-70 |
| Barnett Oil Co | 5-22-74 |
| Beaver Messa Exploration Co | 5-6-75 |
| Burnett Corp. *et al* | 10-8-71 |
| Chamberlain Family Group | 12-15-59 |
| Calpetco III 1976 | 9-14-77 |
| Dore Corp. *et al* | 3-16-76 |
| John B. Elder | 10-24-73 |
| Do | 10-25-73 |
| Nelson B. Escue | 4-27-73 |
| Francis Oil & Gas Inc | 4-8-65 |
| Do | 5-1-67 |
| Graham Michaelis Drilling Co | 3-13-74 |
| Haseda Industries | 9-12-60 |
| R. L. Hatcher | 10-7-57 |
| Herman Geo Kaiser *et al* | 4-8-65 |
| Do | 6-6-66 |
| Do | 6-16-66 |
| Do | 6-16-66 |
| Do | 7-20-66 |
| Do | 8-5-66 |
| Do | 8-5-66 |
| Do | 8-24-66 |
| Do | 7-20-66 |
| Jack Hodgden | 10-1-73 |
| Imperial Oil Co | 1-28-72 |
| David Jackman, Jr | 8-29-72 |
| Kennedy & Mitchell Inc | 1-8-68 |
| Do | 8-1-77 |
| Leben Oil Corp | 6-29-72 |
| Do | 8-18-75 |
| Nelle Son De Regger *et al* | 9-1-59 |
| W. B. Osborn Jr. *et al* | 7-1-67 |
| R. J. Patrick | 9-1-60 |
| Do | 4-5-78 |
| Petroleum Inc | 1-19-59 |
| Do | 3-24-60 |
| Do | 4-22-73 |
| Phoenix Resources Co | 5-1-67 |
| Premier Resources Ltd | 6-14-74 |
| Samson Resources Co | 4-29-60 |
| Sarkeys Inc | 5-10-72 |
| Guy M. Steele Jr. *et al* | 6-22-67 |
| Stevens Co. Oil & Gas Co. *et al* | 9-1-59 |
| Sidwell Oil & Gas Inc. *et al* | 3-15-71 |
| Jack H. Vaughn | 9-1-60 |

## Appendix B

### Fixed Rate Contracts

| Seller | Rate schedule No. | Date |
|---|---|---|
| **Volume I** | | |
| M. B. Armer | 003 | 12/18/53 |
| **Volume II** | | |
| Champlin Petroleum Company | 105 | 11/11/69 |
| Gulf Oil Corporation | 100 | 6/14/57 |
| Gulf Oil Corporation | 513 | 1/31/72 |
| **Small Producer Contracts Volume II** | | |
| Edwin L. Cox | SPC | 9/15/60 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Edwin L. Cox | SPC | 8/1/66 |
| **Small Producer Contracts Volume III** | | |
| Thomas K. Hendrick | SPC | 9/15/60 |
| **Small Producer Contracts Volume IV** | | |
| D.R. Lauck Oil Co. Inc | SPC | 11/25/59 |
| D.R. Lauck Oil Co., Inc | SPC | 11/25/59 |
| **Small Producer Contracts Volume VI** | | |
| Petrodynamics Inc | SPC | 2/1/71 |
| **Small Producer Contracts Volume VII** | | |
| Sierra Petroleum Co. Inc | SPC | 1/31/63 |
| Sierra Petroleum Co. Inc | SPC | 9/11/61 |
| R. J. Stillings | SPC | 4/4/60 |
| **Price Redetermination Contracts Small Producer Contracts Volume I** | | |
| Argonaut Energy Inc. et al | SPC | 10/12/73 |
| Argonaut Energy Inc. et al | SPC | 10/12/73 |
| **Small Producer Contracts Volume V** | | |
| Mountain Petroleum Corp | SPC | 1/30/74 |
| **Small Producer Contracts Volume VIII** | | |
| Tomlinson Oil Company, et al | SPC | 9/12/60 |
| **Type "A" Area Rate Contracts Volume I** | | |
| American Petrofina Co | 091 | 12-7-67 |
| American Petrofina Co | 092 | 12-8-67 |
| American Petrofina Co | 101 | 12-8-67 |
| Amoco Production Co | 558 | 10-16-70 |
| Amoco Production Co | 789 | 6-8-78 |
| Amoco Production Co | 785 | 8-25-78 |
| Anadarko Production Co | 041 | 4-5-61 |
| Anadarko Production Co | 042 | 4-21-61 |
| Anadarko Production Co | 043 | 5-8-61 |
| Anadarko Production Co | 044 | 5-22-61 |
| Anadarko Production Co | 040 | 1-1-61 |
| Anadarko Production Co | 047 | 12-19-60 |
| Anadarko Production Co | 024 | 10-11-61 |
| Anadarko Production Co | 059 | 11-17-61 |
| Anadarko Production Co | 060 | 1-19-62 |
| Anadarko Production Co | 061 | 3-28-62 |
| Anadarko Production Co | 062 | 5-10-62 |
| Anadarko Production Co | 063 | 5-24-62 |
| Anadarko Production Co | 065 | 6-14-62 |
| Anadarko Production Co | 067 | 6-15-62 |
| Anadarko Production Co | 077 | 1-9-64 |
| Anadarko Production Co | 080 | 5-5-64 |
| Anadarko Production Co | 082 | 5-7-64 |
| Anadarko Production Co | 083 | 5-11-64 |
| Anadarko Production Co | 100 | 8-24-60 |
| Anadarko Production Co | 101 | 11-23-60 |
| Anadarko Production Co | 105 | 9-11-63 |
| Anadarko Production Co | 107 | 6-25-74 |
| Anadarko Production Co | 109 | 5-17-65 |
| Anadarko Production Co | 112 | 7-30-65 |
| Anadarko Production Co | 114 | 9-8-65 |
| Anadarko Production Co | 120 | 2-28-66 |
| Anadarko Production Co | 122 | 1-5-66 |
| Anadarko Production Co | 127 | 6-30-66 |
| Anadarko Production Co | 134 | 7-12-67 |
| Anadarko Production Co | 137 | 7-21-67 |
| Anadarko Production Co | 142 | 4-14-69 |
| Anadarko Production Co | 143 | 5-16-69 |
| Anadarko Production Co | 145 | 11-17-69 |
| Anadarko Production Co | 146 | 11-18-69 |
| Anadarko Production Co | 147 | 11-4-69 |
| Anadarko Production Co | 148 | 11-5-69 |
| Anadarko Production Co | 154 | 7-27-70 |
| Anadarko Production Co | 155 | 7-7-71 |
| Anadarko Production Co | 107 | 12-6-60 |
| Anadarko Production Co | 103 | 9-1-59 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Anadarko Production Co | 174 | 9-1-59 |
| Anadarko Production Co | 183 | 7-7-72 |
| Anadarko Production Co | 185 | 3-11-60 |
| Anadarko Production Co | 195 | 1-27-61 |
| Anadarko Production Co | 197 | 5-3-60 |
| Anadarko Production Co | 208 | 12-15-59 |
| Anadarko Production Co | 209 | 12-15-59 |
| Anadarko Production Co | 210 | 12-13-60 |
| Anadarko Production Co | 212 | 2-5-75 |
| Anadarko Production Co | 220 | 3-1-60 |
| Anadarko Production Co | 221 | 9-1-60 |
| Anadarko Production Co | 222 | 1-1-75 |
| Anadarko Production Co | 224 | 9-20-60 |
| Anadarko Production Co | 225 | 1-16-61 |
| Anadarko Production Co | 247 | 7-21-78 |
| Anadarko Production Co | 248 | 7-24-78 |
| Atlantic Richfield Co | 607 | 12-11-67 |
| Atlantic Richfield Co | 598 | 7-17-67 |
| Ashland Exploration Inc | 269 | 4-3-78 |
| **Volume II** | | |
| Amincil U.S.A. Inc | 025 | 2-28-66 |
| Amincil U.S.A. Inc | 027 | 8-11-69 |
| Amincil U.S.A. Inc | 026 | 8-11-69 |
| Cabot Corporation | 033 | 7-25-56 |
| Cabot Corporation | 069 | 4-24-62 |
| CIG Exploration Inc | 007 | 7-25-56 |
| CIG Exploration Inc | 010 | 9-30-74 |
| Champlin Petroleum Company | 104 | 4-16-69 |
| Cities Service Company | 094 | 3-21-56 |
| Cities Service Company | 250 | 10-1-57 |
| Cities Service Company | 104 | 10-9-57 |
| Cities Service Company | 133 | 3-21-60 |
| Cities Service Company | 154 | 3-21-60 |
| Cities Service Company | 138 | 3-24-60 |
| Cities Service Company | 221 | 12-7-67 |
| Cities Service Company | 198 | 4-9-65 |
| Cities Service Company | 423 | 4-15-75 |
| Cities Service Company | 284 | 2-18-63 |
| Cities Service Company | 303 | 12-8-67 |
| Cities Service Company | 307 | 3-10-69 |
| Cities Service Company | 338 | 5-15-72 |
| Cities Service Company | 408 | 3-22-74 |
| Cities Service Company | 416 | 1-20-75 |
| Cities Service Company | 421 | 3-6-75 |
| CIG Exploration Inc | 007 | 7-25-56 |
| CIG Exploration Inc | 010 | 9-30-74 |
| Continental Oil Company | 202 | 5-5-60 |
| Continental Oil Company | 381 | 3-24-72 |
| Edwin L. Cox | 005 | 4-28-55 |
| Dorchester Gas Producing Co | 004 | 1-1-61 |
| Energy Reserves Group Inc | 045 | 4-7-71 |
| Enserch Exploration Inc | 001 | 7-1-75 |
| Enserch Exploration Inc | 035 | 10-9-67 |
| Enserch Exploration Inc | 119 | 7-1-75 |
| Exxon Company U.S.A. | 196 | 5-20-54 |
| Getty Oil Company | 073 | 5-19-58 |
| Getty Oil Company | 306 | 7-24-59 |
| Gulf Oil Corporation | 167 | 4-21-59 |
| Gulf Oil Corporation | 171 | 6-10-69 |
| Gulf Oil Corporation | 200 | 5-19-60 |
| Gulf Oil Corporation | 371 | 8-5-66 |
| HNG Oil Company | 039 | 7-19-73 |
| Helmerich & Payne Inc | 028 | 9-1-59 |
| JM Huber Corporation | 082 | 8-2-68 |
| Marathon Oil Company | 043 | 7-25-58 |
| Marathon Oil Company | 061 | 9-16-60 |
| McCulloch Oil & Gas Corp | 005 | 2-2-71 |
| McCulloch Oil & Gas Corp | 019 | 2-2-71 |
| Mobil Oil Corporation | 490 | 12-4-67 |
| Paneastern Exploration Co | 001 | 3-24-71 |
| Paneastern Exploration Co | 002 | 3-24-71 |
| Paneastern Exploration Co | 003 | 3-24-71 |
| Paneastern Exploration Co | 004 | 3-24-71 |
| Paneastern Exploration Co | 005 | 3-24-71 |
| Paneastern Exploration Co | 006 | 3-24-71 |
| Paneastern Exploration Co | 007 | 3-24-71 |
| Panhandle Western Gas Co | 001 | 10-16-73 |
| POI Inc | 002 | 11-13-57 |
| **Volume III** | | |
| Petroleum Inc | 035 | 11-2-73 |
| Phillips Petroleum Co | 053 | 9-22-59 |
| Pioneer Production Corp | 048 | 5-19-69 |
| Sabine Production Co | 006 | 7-7-78 |
| Diamond Shamrock Corp | 029 | 11-19-59 |

## Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Diamond Shamrock Corp. | 030 | 11-19-53 |
| Diamond Shamrock Corp. | 031 | 12-6-60 |
| Diamond Shamrock Corp. | 032 | 4-17-61 |
| Diamond Shamrock Corp. | 048 | 8-8-66 |
| Sohio Natural Resources Co. | 061 | 11-13-57 |
| Sohio Natural Resources Co. | 156 | 10-15-70 |
| Southland Royalty Co. | 041 | 11-3-77 |
| Sun Gas Co. | 078 | 8-23-56 |
| Sun Gas Co. | 191 | 7-29-65 |
| Sun Gas Co. | 172 | 2-14-64 |
| Sun Gas Co. | 197 | 1-8-66 |
| Sun Gas Co. | 204 | 7-20-66 |
| Sun Gas Co. | 207 | 7-22-66 |
| Sun Gas Co. | 208 | 7-21-66 |
| Sun Gas Co. | 227 | 5-2-67 |
| Sun Gas Co. | 234 | 3-12-64 |
| Sun Gas Co. | 235 | 6-13-66 |
| Sun Gas Co. | 255 | 2-8-63 |
| Sun Gas Co. | 325 | 6-11-56 |
| Sun Gas Co. | 357 | 11-25-57 |
| Sun Gas Co. | 372 | 7-21-59 |
| Sun Gas Co. | 387 | 6-15-60 |
| Sun Gas Co. | 400 | 6-1-61 |
| Sun Gas Co. | 414 | 6-26-63 |
| Sun Gas Co. | 427 | 2-2-65 |
| Sun Gas Co. | 444 | 5-13-66 |
| Sun Gas Co. | 454 | 9-12-67 |
| Sun Gas Co. | 457 | 12-4-67 |
| Sun Gas Co. | 525 | 7-13-64 |
| Sun Gas Co. | 561 | 9-26-61 |
| Sun Gas Co. | 577 | 4-4-61 |
| Tenneco Oil Co. | 220 | 11-28-67 |
| Terra Resources Inc. | 031 | 3-27-63 |
| Texaco Inc. | 142 | 11-1-55 |
| Texaco Inc. | 418 | 4-1-68 |
| Texaco Inc. | 473 | 4-24-72 |
| *Texas Pacific Oil Co. | 102 | 3-2-72 |
| Tankawa Gas Processing Co. | 003 | 8-30-71 |
| Union Texas Petroleum | 083 | 7-2-65 |
| Union Texas Petroleum | 101 | 1-12-70 |

* Refers to FPC only.

### Small Producer Contracts Volume I

| | | |
|---|---|---|
| Mark H. Adams | SPC | 9-1-59 |
| Adobe Oil Corporation | SPC | 6-9-70 |
| Aegis Corp. | SPC | 6-18-71 |
| Allied Materials Corp., et al | SPC | 4-22-74 |
| Allied Materials Corp., et al | SPC | 9-3-74 |
| An-Son Corporation | SPC | 5-26-72 |
| An-Son Corporation | SPC | 5-26-72 |
| Ascot Oils Inc. | SPC | 10-4-72 |
| Ascot Oils Inc. | SPC | 12-12-72 |
| Aspen Drilling Co. et al. | SPC | 9-23-76 |
| TD and EJ Bailey | SPC | 12-22-70 |
| TD and EJ Bailey | SPC | 12-22-70 |
| Lee Bank | SPC | 2-21-72 |
| Max E. Banks | SPC | 4-30-71 |
| Max E. Banks | SPC | 4-30-71 |
| Barnett Oil Company | SPC | 5-22-74 |
| Barnett Oil Company | SPC | 5-22-74 |
| Barnett Oil Company | SPC | 5-22-74 |
| Barnett Oil Company | SPC | 5-22-74 |
| Barnett Oil Company | SPC | 5-22-74 |
| R. H. Bauman | SPC | 7-29-74 |
| Beard Oil Company et al. | SPC | 9/28/62 |
| Beaver Mesa Exploration Co. | SPC | 9-14-71 |
| Beaver Mesa Exploration Co. | SPC | 5-6-75 |
| Beaver Mesa Exploration Co. | SPC | 5-6-75 |
| Beaver Mesa Exploration Co. | SPC | 5/6/75 |
| John L. Bedwell Inc. | SPC | 7-5-66 |
| Bellwether, Ltd. | SPC | 3-5-58 |
| Boren Corp. | SPC | 4-23-71 |
| Boren Corp. | SPC | 4-23-71 |
| Blaik Oil Company | SPC | 8-29-72 |
| Blaik Oil Company | SPC | 2-26-73 |
| Blaik Oil Company | SPC | 3-18-74 |
| Bonnay Oil Company | SPC | 7-31-72 |
| Bonnay Oil Company | SPC | 4-16-73 |
| Bonnay Oil Company | SPC | 6-1-74 |
| Bonnay Oil Company | SPC | 6-1-74 |
| Estate of Louise W. Bradley | SPC | 6-24-52 |
| Estate of Louise W. Bradley | SPC | 10-4-58 |
| Estate of Louise W. Bradley | SPC | 5-6-58 |
| Estate of Louise W. Bradley | SPC | 7-3-58 |
| C. F. Brown & Company | SPC | 2-4-72 |
| Burnett Corporation et al. | SPC | 10-8-71 |
| Burnett Corporation et al. | SPC | 10-8-71 |

## Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Burnett Corporation et al. | SPC | 10-8-71 |
| H. N. Burnett et al. | SPC | 10-8-71 |
| H. N. Burnett et al. | SPC | 10-8-71 |
| Burnett Corporation, et al. | SPC | 10-8-71 |

### Small Producer Contracts Volume II

| | | |
|---|---|---|
| Calpetco-KMI-1975 | SPC | 11-8-76 |
| Calpetco-KMI-1975 | SPC | 11-8-76 |
| Calpetco III 1976 | SPC | 9-14-77 |
| Calpetco III 1976 | SPC | 9-14-77 |
| Rodney P. Calvin, et al. | SPC | 10-1-71 |
| Calvin Petroleum Corp. | SPC | 10-1-71 |
| Chamberlain Family Group | SPC | 12-15-59 |
| Chamberlain Family Group | SPC | 12-15-59 |
| Chamberlain Family Group | SPC | 12-15-59 |
| Chamberlain Family Group | SPC | 8-4-71 |
| Chamberlain Family Group | SPC | 12-15-59 |
| Chamberlain Family Group | SPC | 12-15-59 |
| Chamberlain Family Group | SPC | 12-15-59 |
| Champlin Exploration Inc. | SPC | 1-21-74 |
| Champlin Exploration Inc. | SPC | 8-1-77 |
| Cherokee Ltd. | SPC | 4-25-74 |
| Classen Oil & Gas Company | SPC | 10-9-72 |
| GM Close et al. | SPC | 2-18-70 |
| GM Close et al. | SPC | 4-22-70 |
| Colorado Energy Corporation | SPC | 3-13-75 |
| Colorado Energy Corporation | SPC | 3-13-75 |
| Colorado Energy Corporation | SPC | 3-13-75 |
| Colorado Energy Corporation | SPC | 3-13-75 |
| Colorado Energy Corporation | SPC | 3-13-75 |
| Colorado Energy Corporation | SPC | 3-13-75 |
| Corpening Companies 1973 Ltd | SPC | 9-25-74 |
| Cotton Petroleum Corp. | SPC | 1-23-75 |
| Cotton Petroleum Corp. | SPC | 3-1-74 |
| Cotton Petroleum Corp. | SPC | 1-23-75 |
| Cotton Petroleum Corp. | SPC | 6-27-75 |
| Cotton Petroleum Corp. | SPC | 4-27-73 |
| Edwin L. Cox | SPC | 4-28-55 |
| Edwin L. Cox | SPC | 4-28-55 |
| Edwin L. Cox | SPC | 4-16-63 |
| Edwin L. Cox | SPC | 3-21-56 |
| Edwin L. Cox | SPC | 7-10-56 |
| Edwin L. Cox | SPC | 9-6-60 |
| Crystal Expl. & Prod. Co. | SPC | 9-24-73 |
| Curran Oil Company, et al. | SPC | 10-23-69 |
| *Davis Oil Company, et al. | SPC | 3-2-72 |
| Davis Oil Company, et al. | SPC | 1-2-74 |
| Decalta International Corp. | SPC | 3-18-68 |
| Decalta International Corp. | SPC | 12-8-67 |
| DeRegger et al. | SPC | 9-1-59 |
| DeRegger et al. | SPC | 9-1-59 |
| DeRegger et al. | SPC | 9-1-59 |
| Dare Corporation, et al. | SPC | 3-16-76 |
| Dunn & Kimberlin | SPC | 12-1-49 |
| Earlsboro Oil & Gas Co. | SPC | 8-6-70 |
| Earlsboro Oil & Gas Co. | SPC | 12-19-72 |
| Earlsboro Oil & Gas Co. | SPC | 12-19-72 |
| Earlsboro Oil & Gas Co. | SPC | 8-12-68 |
| EK Admiston Operator | SPC | 2-25-69 |
| John B. Elder | SPC | 10-25-73 |
| John B. Elder | SPC | 10-25-73 |
| John B. Elder | SPC | 10-24-73 |
| John B. Elder | SPC | 10-24-73 |
| John B. Elder | SPC | 10-24-73 |
| Escor Inc., et al. | SPC | 2-8-74 |
| Nelson B. Escue | SPC | 4-27-73 |
| Etchieson & Watkins | SPC | 4-10-74 |
| Exter Drilling & Exploration | SPC | 2-6-74 |

*Refers to FPC only.

### Small Producer Contracts Volume III

| | | |
|---|---|---|
| Ferguson Oil Co. Inc. et al | SPC | 9-15-61 |
| Ferguson Oil Co. Inc. et al | SPC | 7-26-67 |
| First National Oil Inc. | SPC | 12-13-73 |
| First National Oil Inc. | SPC | 12-13-73 |
| Flag-Redjern Oil Company | SPC | 3-21-68 |
| Flynn Gregy Corp. | SPC | 6-17-74 |
| Fort Worth Nat'l Bank | SPC | 6-26-76 |
| Foster Petroleum | SPC | 2-11-74 |
| Freeport Oil | SPC | 12-7-67 |
| Freeport Oil | SPC | 12-7-67 |
| Funk Petroleum | SPC | 6-25-64 |
| Glenwood Inc. | SPC | 12-29-75 |
| Global Oils | SPC | 4-10-63 |
| Good & Phillips | SPC | 11/16/72 |

## Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Grave Petroleum | SPC | 11/3/72 |
| Grave Petroleum | SPC | 5/15/72 |
| Grave Petroleum | SPC | 3/14/67 |
| Grave Petroleum | SPC | 3/31/70 |
| Grave Petroleum | SPC | 3/31/70 |
| Grave Petroleum | SPC | 4/20/70 |
| Graham Michaelis Drill. Co. | SPC | 2/4/58 |
| Graham Michaelis Drill. Co. | SPC | 11/13/57 |
| Graham Michaelis Drill. Co. | SPC | 4/16/58 |
| Graham Michaelis Drill. Co. | SPC | 7/1/58 |
| Graham Michaelis Drill. Co. | SPC | 7/1/58 |
| Graham Michaelis Drill. Co. | SPC | 7/1/58 |
| Graham Michaelis Drill. Co. | SPC | 4/16/69 |
| Graham Michaelis Drill. Co. | SPC | 5/25/70 |
| Graham Michaelis Drill. Co. | SPC | 3/13/74 |
| William Gruenerwald | SPC | 1/31/72 |
| William Gruenerwald | SPC | 4/30/71 |
| William Gruenerwald | SPC | 4/30/71 |
| William Gruenerwald | SPC | 4/30/71 |
| William Gruenerwald | SPC | 12/28/66 |
| H-30 Inc. | SPC | 4/0/72 |
| Robert L. Hadwiger | SPC | 11/23/77 |
| Hamilton Bros. Petro. Inc. | SPC | 5/23/60 |
| Ralph L. Harvey | SPC | 9/25/74 |
| Hasada Inc. | SPC | 9/12/60 |
| R. L. Hatcher | SPC | 10/7/67 |
| James R. Hazelwood | SPC | 6/28/66 |
| James R. Hazelwood | SPC | 6/28/66 |
| James R. Hazelwood | SPC | 6/28/66 |
| James R. Hazelwood | SPC | 6/28/66 |
| H & L Operating Company | SPC | 4/2/73 |
| H & L Operating Company | SPC | 10/11/73 |
| H & L Operating Company | SPC | 1/17/74 |
| H & L Operating Company | SPC | 6/1/77 |
| H & L Operating Company | SPC | 4/5/77 |
| Hilliard Oil & Gas | SPC | 12/23/74 |
| John H. Hill, et al. | SPC | 6/1/70 |
| John H. Hill, et al. | SPC | 2/26/70 |
| John H. Hill, et al. | SPC | 12/9/71 |
| Jack Hodgden | SPC | 10/1/73 |
| Jack Hodgden | SPC | 10/1/73 |
| Hoover & Bracken | SPC | 3/7/77 |
| Hoover & Bracken | SPC | 2/11/77 |

### Small Producer Contracts Volume IV

| | | |
|---|---|---|
| Imperial Oil Co. | SPC | 10/8/71 |
| Imperial Oil Co. | SPC | 1/28/72 |
| Imperial Oil Co. | SPC | 2/17/72 |
| Inexco Oil Co. | SPC | 5/30/72 |
| Inexco Oil Co. | SPC | 5/30/72 |
| Inexco Oil Co. | SPC | 5/30/72 |
| Investors Drilling & Exploration Co. | SPC | 11/7/73 |
| David Jackman, Jr. | SPC | 8/29/72 |
| David Jackman, Jr. | SPC | 8/29/72 |
| David Jackman, Jr. | SPC | 8/29/72 |
| David Jackman, Jr. | SPC | 8/29/72 |
| W. S. Jernigan | SPC | 12/14/61 |
| W. S. & Charlotte Jernigan | SPC | 12/14/61 |
| E. Lyle Johnson, et al. | SPC | 8/9/72 |
| Jones & Pellow Oil Co. | SPC | 10/2/70 |
| Jones & Pellow Oil Co. | SPC | 11/30/70 |
| Jones & Pellow Oil Co. | SPC | 1/2/73 |
| Joseph Oil Corp. | SPC | 12/12/74 |
| Joseph Oil Corp. | SPC | 12/12/74 |
| G. S. Joslin | SPC | 4/25/74 |
| Herman Geo. Kaiser et al. | SPC | 1/19/59 |
| Herman Geo. Kaiser et al. | SPC | 8/1/72 |
| Herman Geo. Kaiser et al. | SPC | 8/6/62 |
| Herman Geo. Kaiser et al. | SPC | 8/5/68 |
| Herman Geo. Kaiser et al. | SPC | 8/5/68 |
| Herman Geo. Kaiser et al. | SPC | 3/21/75 |
| Herman Geo. Kaiser et al. | SPC | 7/20/66 |
| Herman Geo. Kaiser et al. | SPC | 6/16/66 |
| Herman Geo. Kaiser et al. | SPC | 6/16/66 |
| Kansas Shallow Ltd. | SPC | 12/23/74 |
| Kennedy & Mitchell Inc. | SPC | 1/8/68 |
| Kennedy & Mitchell Inc. | SPC | 8/1/77 |
| Wayne L. Kirkman | SPC | 12/23/74 |
| Kirkpatrick Oil & Gas Co. | SPC | 9/27/72 |
| Kirkpatrick Oil & Gas Co. | SPC | 9/27/72 |
| Kirkpatrick Oil & Gas Co. | SPC | 2/19/73 |
| Krizman Enterprises | SPC | 4/25/74 |
| Krizman Enterprises | SPC | 4/25/74 |
| Ladd Petroleum Corp. | SPC | 11/29/66 |
| Ladd Petroleum Corp. | SPC | 8/10/73 |
| Ladd Petroleum Corp. | SPC | 4/25/74 |
| Cecil L. Lanier et al. | SPC | 6/24/70 |
| D. R. Lauck Oil Co. Inc. | SPC | 4/24/69 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| D. R. Lauck Oil Co. Inc. | SPC | 1/24/74 |
| Lear Petroleum Corp. | SPC | 4/1/66 |
| Lear Petroleum Corp. | SPC | 4/26/66 |
| Lear Petroleum Corp. | SPC | 5/4/66 |
| Lear Petroleum Corp. | SPC | 3/6/74 |
| Leben Oil Corp. | SPC | 9/16/70 |
| Leben Oil Corp. | SPC | 10/14/71 |
| Leben Oil Corp. | SPC | 2/14/72 |
| Leben Oil Corp. | SPC | 8/14/72 |
| Leben Oil Corp. | SPC | 8/14/72 |
| Leben Oil Corp. | SPC | 6/30/72 |
| Leben Oil Corp. | SPC | 6/29/72 |
| Leben Oil Corp. | SPC | 11/20/69 |
| L & M Gas Co. | SPC | 3/11/71 |

Small Producer Contracts Volume V

| | | |
|---|---|---|
| Macey & Mershon Oil Inc. | SPC | 10/11/71 |
| Mahaska Gas Company Inc. | SPC | 9/1/59 |
| Mahaska Gas Company Inc. | SPC | 9/1/59 |
| F. W. Mallones | SPC | 2/25/70 |
| Marlin Oil Company | SPC | 10/11/71 |
| Marlin Oil Company | SPC | 10/11/71 |
| Marlin Oil Company | SPC | 10/11/71 |
| Marlin Oil Company | SPC | 8/25/74 |
| Robert W. Marriot | SPC | 5/13/66 |
| T. F. Marsh | SPC | 3/24/60 |
| T. F. Marsh | SPC | 3/24/60 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 3/13/75 |
| Martin Oil Services, Inc. | SPC | 7/15/71 |
| May Exploration Ventures Inc. | SPC | 6/19/72 |
| May Petroleum Inc. | SPC | 7/12/74 |
| Mesa Petroleum Co., et al | SPC | 11/24/70 |
| Mesa Petroleum Co., et al | SPC | 11/24/70 |
| Mesa Petroleum Co., et al | SPC | 11/24/70 |
| Mesa Petroleum Co., et al | SPC | 11/24/70 |
| Messman Rinehart Oil Co. | SPC | 10/7/59 |
| Messman Rinehart Oil Co. | SPC | 3/18/71 |
| Messman Rinehart Oil Co. | SPC | 3/1/57 |
| Messman Rinehart Oil Co. | SPC | 8/15/57 |
| Messman Rinehart Oil Co. | SPC | 8/15/57 |
| Messman Rinehart Oil Co. | SPC | 12/15/58 |
| Messman Rinehart Oil Co. | SPC | 3/1/58 |
| Mae Weeks Mueller | SPC | 4/25/74 |
| Mae Weeks Mueller | SPC | 4/25/74 |
| Moll Drilling Co., Inc. | SPC | 10/15/58 |
| Multistate Oil Properties | SPC | 1/2/62 |
| Multistate Oil Properties | SPC | 8/19/74 |
| Multistate Oil Properties | SPC | 8/19/74 |
| Multistate Oil Properties | SPC | 8/19/74 |
| Multistate Oil Properties | SPC | 6/18/74 |
| Multistate Oil Properties | SPC | 6/18/74 |
| Multistate Oil Properties | SPC | 6/18/74 |
| David L. Murphy | SPC | 5/15/72 |
| National Coop Ref Assoc. | SPC | 3/28/58 |
| National Oil Company | SPC | 4/2/74 |
| Natural Gas Anadarko Inc. | SPC | 12/3/73 |
| Nelson Petroleum Company | SPC | 8/10/73 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Nielson Enterprises, Inc. | SPC | 10–11/71 |
| Nielson Enterprises, Inc. | SPC | 10/11/71 |
| Carl A. Nilsen | SPC | 4/19/73 |
| Northern Pump Co., et al. | SPC | 3/31/56 |
| Northern Oil & Gas, Inc. | SPC | 6/12/74 |
| Northern Oil & Gas, Inc. | SPC | 6/12/74 |
| Oleum Inc., et al. | SPC | 9/22/69 |
| Olympia Exploration Co. | SPC | 11/30/72 |
| Olympia Exploration Co. | SPC | 11/30/72 |
| Olympia Exploration Co. | SPC | 7/31/72 |
| Olympia Exploration Co. | SPC | 7/31/72 |
| Joseph T. O'Neill | SPC | 4/24/75 |
| Joseph T. O'Neill | SPC | 4/25/75 |
| Joseph T. O'Neill | SPC | 6/1/75 |
| Joseph T. O'Neill | SPC | 6/2/75 |
| Joseph T. O'Neill | SPC | 6/3/75 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Joseph T. O'Neill | SPC | 7/3/75 |
| W. B. Osborn Jr., et al. | SPC | 7/1/67 |
| W. B. Osborn Jr., et al. | SPC | 7/1/67 |
| W. B. Osborn Jr., et al. | SPC | 7/1/67 |
| W. B. Osborn Jr., et al. | SPC | 7/23/70 |
| Oxoco | SPC | 2/2/71 |
| Oxoco | SPC | 2/2/71 |
| Oxoco | SPC | 8/21/73 |

Small Producer Contracts Volume VI

| | | |
|---|---|---|
| Page Petroleum, Inc. | SPC | 11/11/65 |
| Paradox Petroleum Co. | SPC | 3/24/60 |
| Paradox Petroleum Co. | SPC | 3/24/60 |
| R. J. Patrick | SPC | 9/1/60 |
| R. J. Patrick | SPC | 9/1/60 |
| R. J. Patrick | SPC | 4/5/78 |
| WC Payne & Joe M. Coleman | SPC | 11/28/69 |
| WC Payne & Joe M. Coleman | SPC | 2/18/70 |
| WC Payne & Joe M. Coleman | SPC | 5/15/72 |
| WC Payne & Joe M. Coleman | SPC | 5/15/74 |
| Paradox Petroleum Company | SPC | 3/24/60 |
| Petroleum Inc. | SPC | 4/22/65 |
| Petroleum Inc. | SPC | 11/2/73 |
| Petroleum Inc. | SPC | 11/2/73 |
| Petroleum Inc. | SPC | 11/2/73 |
| Petroleum Inc. | SPC | 4/22/73 |
| Petroleum Inc. | SPC | 8/15/61 |
| Petroleum Inc. | SPC | 9/2/59 |
| Petroleum Inc. | SPC | 3/24/60 |
| Petroleum Inc. | SPC | 1/19/59 |
| Petroleum Inc. | SPC | 1/19/59 |
| Petroleum Inc. | SPC | 1/19/59 |
| Petroleum Inc. | SPC | 1/19/59 |
| Petroleum Inc. | SPC | 11/11/65 |
| Petroleum Invest. Ltd. 1972 | SPC | 1/2/73 |
| Petro/Lewis Funds Inc. | SPC | 6/9/70 |
| Pinon Petroleum Corp. | SPC | 12/14/61 |
| Pinon Petroleum Corp. | SPC | 4/25/74 |
| Pinon Petroleum Corp. | SPC | 4/25/74 |
| Pip Petroleum Corp. | SPC | 4/25/74 |
| Pip Petroleum Corp. | SPC | 4/25/74 |
| Post Petroleum Co. | SPC | 8/2/68 |
| Powell & Stone | SPC | 2/10/71 |
| Premier Resources Ltd. | SPC | 3/11/74 |
| Premier Resources Ltd. | SPC | 6/14/74 |
| Premier Resources Ltd. | SPC | 8/14/73 |
| Premier Resources Ltd. | SPC | 9/16/74 |
| Premier Resources Ltd. | SPC | 9/17/74 |
| Premier Resources Ltd. | SPC | 11/13/74 |
| Premier Resources Ltd. | SPC | 12/17/74 |
| Premier Resources Ltd. | SPC | 12/16/74 |
| Premier Resources Ltd. | SPC | 7/7/75 |
| Premier Resources Ltd. | SPC | 11/20/75 |
| Presido Exploration Inc. | SPC | 2/26/70 |
| Virginia K. Price Trust | SPC | 6/6/78 |
| Producers Gas Company | SPC | 2/28/72 |
| Producers Gas Company | SPC | 1/28/72 |
| Producers Gas Company | SPC | 12/18/72 |
| Prudential Funds Inc. | SPC | 4/24/70 |
| Rains & Williamson Oil Co. | SPC | 8/8/74 |
| Ratliff Drilling Company | SPC | 6/28/66 |
| Ratliff Drilling Company | SPC | 6/28/66 |
| A. C. Richards | SPC | 4/10/69 |
| A. C. Richards | SPC | 4/24/69 |
| JI Roberts & BM Roberts | SPC | 4/25/74 |
| Rocket Oil Company | SPC | 10/13/72 |
| Rocket Oil Company | SPC | 10/13/72 |
| Rope Oil Company | SPC | 10/23/73 |
| Rope Oil Company | SPC | 10/23/73 |
| Rope Oil Company | SPC | 3/7/74 |
| Rye 73 Ltd. | SPC | 9/9/74 |

Small Producer Contracts Volume VII

| | | |
|---|---|---|
| Samedan Oil | SPC | 8/20/70 |
| Samson Resources | SPC | 8/8/62 |
| Samson Resources | SPC | 4/29/60 |
| Samson Resources | SPC | 6/30/66 |
| Samson Resources | SPC | 7/5/66 |
| Samson Resources | SPC | 3/2/72 |
| Samson Resources | SPC | 7/1/66 |
| Sandlin Oil | SPC | 11/4/40 |
| Sandlin Oil | SPC | 3/1/79 |
| Sarkeys, Inc. | SPC | 8/11/69 |
| Sarkeys, Inc. | SPC | 8/11/69 |
| Sarkeys, Inc. | SPC | 5/10/72 |
| Sarkeys, Inc. | SPC | 10/1/62 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Sarkeys, Inc. | SPC | 5/7/76 |
| Charles Sarratt | SPC | 9/25/74 |
| Schusterman Development | SPC | 10/10/72 |
| Schusterman Development | SPC | 10/10/72 |
| Service Drilling | SPC | 11/4/76 |
| Service Drilling | SPC | 10/4/76 |
| George B. Shaw | SPC | 7/3/58 |
| Sidewell Oil & Gas, Inc. | SPC | 3/15/71 |
| Sidewell Oil & Gas, Inc. | SPC | 10/22/73 |
| Sidewell Oil & Gas, Inc. | SPC | 10/25/74 |
| Sidewell Oil & Gas, Inc. | SPC | 12/12/74 |
| SOC Gas Systems, Inc. | SPC | 6/18/74 |
| SOC Gas Systems, Inc. | SPC | 6/18/74 |
| SOC Gas Systems, Inc. | SPC | 6/18/74 |
| Southland Royalty Company | SPC | 11/1/56 |
| Special Alden Drilling | SPC | 4/21/75 |
| Spicknall Enterprises | SPC | 10/4/56 |
| Star Petroleum Company | SPC | 9/17/73 |
| Statex Petroleum | SPC | 2/2/71 |
| Guy M. Steele, Jr. | SPC | 6/22/67 |
| Guy M. Steele, Jr. | SPC | 6/22/67 |
| Charles C. Stephenson | SPC | 10/10/72 |
| Charles C. Stephenson | SPC | 10/10/72 |
| Stevens Oil & Gas Company | SPC | 9/1/59 |
| Stevens Oil & Gas Company | SPC | 9/1/57 |
| Stevens Oil & Gas Company | SPC | 9/1/59 |
| Stevens Oil & Gas Company | SPC | 9/1/59 |
| Stevens Oil & Gas Company | SPC | 9/1/59 |
| Stevens Oil & Gas Company | SPC | 9/1/59 |
| Stevens Oil & Gas Company | SPC | 11/1/57 |
| Suco Oil Corp. | SPC | 8/23/56 |
| Suburban Propane Gas Corp. | SPC | 11/29/67 |
| Suburban Propane Gas Corp. | SPC | 11/29/67 |
| Suburban Propane Gas Corp. | SPC | 11/29/67 |
| Suburban Propane Gas Corp. | SPC | 11/29/67 |

Small Producer Contracts Volume VIII

| | | |
|---|---|---|
| Tackion Inc., et al. | SPC | 10/17/57 |
| Tackion Inc., et al. | SPC | 10/17/57 |
| Texas Oil & Gas Company | SPC | 5/2/67 |
| C. H. Todd, Inc. | SPC | 4/25/74 |
| Triton Oil & Gas Corp. et al | SPC | 8/19/63 |
| Tuthill & Barbee | SPC | 3/10/75 |
| Rip C. Underwood, et al. | SPC | 1/2/62 |
| Union Nat'l Bank of Wichita | SPC | 9/1/59 |
| Union Nat'l Bank of Wichita | SPC | 12/6/60 |
| Union Nat'l Bank of Wichita | SPC | 12/6/60 |
| *Universal Resources Corp. | SPC | 3/2/72 |
| *Universal Resources Corp. | SPC | 3/2/72 |
| U.S. Energy Incorporated | SPC | 3/2/72 |
| Jack H. Vaughn | SPC | 9/1/60 |
| Jack H. Vaughn | SPC | 9/1/60 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 7/15/71 |
| Vessels Oil & Gas Co. | SPC | 3/3/75 |
| Vessels Oil & Gas Co. | SPC | 3/3/75 |
| Vessels Oil & Gas Co. | SPC | 3/3/75 |
| Robert L. Waller | SPC | 12/7/72 |
| L.O. Ward Oil Company | SPC | 6/27/75 |
| Webb Resources | SPC | 5/6/71 |
| Webb Resources | SPC | 5/6/71 |
| Webb Resources | SPC | 5/6/71 |
| Ed Weems | SPC | 5/13/66 |
| N. H. Wheless Agent, et al. | SPC | 5/1/60 |
| N. H. Wheless Agent, et al. | SPC | 5/1/60 |
| Robert F. White, et al. | SPC | 4/27/64 |
| Robert F. White, et al. | SPC | 6/21/60 |
| Whiteman Indus. Inc. et al. | SPC | 2/25/75 |
| Whiteman Investment Co. | SPC | 2/25/75 |
| Robert R. Wilson, et al. | SPC | 12/15/59 |
| Robert R. Wilson, et al. | SPC | 12/15/59 |
| Robert R. Wilson, et al. | SPC | 12/15/59 |
| Robert R. Wilson, et al. | SPC | 12/15/59 |
| Robert R. Wilson, et al. | SPC | 12/31/63 |
| Robert R. Wilson, et al. | SPC | 12/31/63 |
| Robert R. Wilson, et al. | SPC | 3/2/64 |
| Robert R. Wilson, et al. | SPC | 3/2/64 |
| Robert R. Wilson, et al. | SPC | 3/9/64 |
| Robert R. Wilson, et al. | SPC | 3/9/64 |
| James W. Wise | SPC | 5/13/66 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule No. | Date |
|---|---|---|
| Worldwide Energy Corp | SPC | 6/20/72 |
| Worldwide Energy Corp | SPC | 6/20/72 |
| Worldwide Energy Corp | SPC | 6/20/72 |
| Woods Petroleum Corp | SPC | 12/9/65 |
| Woods Petroleum Corp | SPC | 7/7/70 |
| W. R. Vinger, et al | SPC | 11/12/70 |
| W. R. Vinger, et al | SPC | 3/24/72 |
| Yucca Petroleum Company | SPC | 5/19/69 |
| Sarkeys, Inc | SPC | 5/7/76 |

*Refers to FPC only.

**Type "B" Area Rate Contracts Volume I**

| | | |
|---|---|---|
| Amoco Production Co | 587 | 11/4/70 |
| Anadarko Production Co | 201 | 9/5/74 |
| Anadarko Production Co | 202 | 8/20/74 |
| Anadarko Production Co | 178 | 1/31/72 |
| Ashland Exploration, Inc | 142 | 4/6/60 |
| Amerada Hess | 138 | 6/16/66 |

**Volume II**

| | | |
|---|---|---|
| *Gulf Oil Corporation | 409 | 2/28/69 |
| J. M. Huber Corporation | 009 | 6/29/51 |
| King Resources Company | 010 | 5/1/67 |
| Pennzoil Company | 032 | 4/30/71 |

*Refers to FPC only.

**Small Producer Contracts Volume I**

| | | |
|---|---|---|
| Appleton Oil Co. et al | SPC | 8/19/70 |
| Carl M. Archer | SPC | 10/7/69 |
| Carl M. Archer | SPC | 10/7/69 |
| Carl M. Archer | SPC | 10/7/69 |
| Argonaut Energy Inc. et al | SPC | 12/23/74 |
| An-Son Corporation | SPC | 3/10/75 |
| Beaver Mesa Exploration Co | SPC | 8/1/71 |
| Beaver Mesa Exploration Co | SPC | 7/30/71 |
| Beaver Mesa Exploration Co | SPC | 7/30/71 |
| Beaver Mesa Exploration Co | SPC | 8/1/71 |
| Beaver Mesa Exploration Co | SPC | 8/1/71 |
| Beaver Mesa Exploration Co | SPC | 7/30/71 |
| Beaver Mesa Exploration Co | SPC | 8/1/71 |
| Beaver Mesa Exploration Co | SPC | 11/4/70 |
| Beaver Mesa Exploration Co | SPC | 7/30/71 |
| Beaver Mesa Exploration Co | SPC | 8/1/71 |
| Beaver Mesa Exploration Co | SPC | 8/1/71 |
| An-Son Corporation | SPC | 7/12/66 |

**Small Producer Contracts Volume II**

| | | |
|---|---|---|
| H. A. Chapman, et al | SPC | 4/6/60 |

**Small Producer Contracts Volume III**

| | | |
|---|---|---|
| General Crude | SPC | 7/6/76 |
| Francis Oil & Gas Inc | SPC | 4/8/65 |
| Francis Oil & Gas Inc | SPC | 5/1/67 |

**Small Producer Contracts Volume IV**

| | | |
|---|---|---|
| Leben Oil Corp | SPC | 8/18/75 |
| Herman Geo. Kaiser et al | SPC | 4/8/65 |
| Inexco Oil Co | SPC | 2/24/75 |
| Inexco Oil Co | SPC | 2/24/75 |
| Inexco Oil Co | SPC | 2/24/75 |
| Inexco Oil Co | SPC | 2/24/75 |
| Herman Geo. Kaiser et al | SPC | 8/5/66 |
| Herman Geo. Kaiser et al | SPC | 7/20/66 |
| Herman Geo. Kaiser et al | SPC | 6/6/66 |
| Herman Geo. Kaiser et al | SPC | 8/24/66 |
| Herman Geo. Kaiser et al | SPC | 6/16/66 |
| Herman Geo. Kaiser et al | SPC | 6/16/66 |
| Leben Oil Corp | SPC | 6/9/65 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule No. | Date |
|---|---|---|
| Leben Oil Corp | SPC | 6/10/68 |

**Small Producer Contracts Volume V**

| | | |
|---|---|---|
| Macey & Mershon Oil Inc | SPC | 11/4/70 |

**Small Producer Contracts Volume VII**

| | | |
|---|---|---|
| Sabine Producer Company | SPC | 7/12/66 |

**Small Producer Contracts Volume VIII**

| | | |
|---|---|---|
| *Yale Oil Association | SPC | 2/5/69 |
| Teal Petroleum Company | SPC | 11/14/75 |
| Teal Petroleum Company | SPC | 11/14/75 |
| Teal Petroleum Company | SPC | 11/14/75 |
| *Refers to FPC only. | | |

*Refers to FPC only.

**Type "C" Area Rate Contracts Volume I**

| | | |
|---|---|---|
| Anadarko Production Co | 243 | 5/15/78 |
| Cities Service Company | 097 | 1/1/57 |
| Cities Service Company | 460 | 5/16/77 |
| Cities Service Company | 471 | 9/24/76 |
| Cotton Petroleum Corporation | 030 | 7/26/78 |
| Cotton Petroleum Corporation | 031 | 8/11/78 |
| Energy Reserves Group Inc | 157 | 6/30/78 |
| Energy Reserves Group Inc | 158 | 7/19/78 |
| Exxon Company U.S.A | 202 | 10/4/56 |
| Exxon Company U.S.A | 204 | 1/7/57 |
| Exxon Company U.S.A | 205 | 1/23/57 |
| Exxon Company U.S.A | 211 | 11/13/57 |
| Exxon Company U.S.A | 248 | 4/29 |
| Exxon Company U.S.A | 254 | 10/17/60 |
| Exxon Company U.S.A | 303 | 2/12/62 |
| Exxon Company U.S.A | 322 | 10/17/62 |
| Exxon Company U.S.A | 356 | 6/17/64 |
| Exxon Company U.S.A | 364 | 8/19/64 |
| Exxon Company U.S.A | 402 | 6/9/66 |
| Exxon Company U.S.A | 425 | 5/1/67 |
| Exxon Company U.S.A | 439 | 11/1/67 |
| JM Huber Corporation | 070 | 3/3/66 |
| JM Huber Corporation | 073 | 4/26/66 |
| JM Huber Corporation | 078 | 4/3/67 |
| Mobile Oil Corporation | 011 | 10/1/56 |
| Panhandle Western Gas Co | 002 | 10/16/77 |
| Panhandle Western Gas Co | 003 | 3/15/78 |
| Panhandle Western Gas Co | 004 | 5/2/78 |
| Panhandle Western Gas Co | 005 | 6/27/78 |
| Panhandle Western Gas Co | 006 | 3/13/78 |
| Panhandle Western Gas Co | 007 | 3/14/78 |
| Panhandle Western Gas Co | 008 | 10/14/77 |
| Panhandle Western Gas Co | 009 | 10/13/77 |
| Panhandle Western Gas Co | 010 | 10/14/77 |
| Panhandle Western Gas Co | 011 | 7/7/78 |
| Panhandle Western Gas Co | 012 | 7/6/78 |
| Panhandle Western Gas Co | 013 | 8/31/78 |

**Volume III**

| | | |
|---|---|---|
| Diamond Shamrock Corp | 095 | 8/21/78 |
| Sohio Natural Resources Co | 038 | 6/24/57 |
| Southland Royalty Co | 032 | 9/24/76 |
| Southland Royalty Co | 035 | 2/24/77 |
| Southland Royalty Co | 039 | 7/25/77 |
| Southland Royalty Co | 086 | 5/24/78 |
| Southland Royalty Co | 087 | 6/5/78 |
| Southland Royalty Co | 088 | 5/5/78 |
| Southland Royalty Co | 094 | 3/27/78 |

**Small Producer Contracts Volume I**

| | | |
|---|---|---|
| AL Abercrombie et al | SPC | 4/25/78 |
| Connie McGill Allen | SPC | 5/24/78 |
| American Public Energy Co | SPC | 9/22/59 |
| An-Son Corporation | SPC | 11/17/78 |
| An-Son Corporation | SPC | 10/16/78 |
| Antares Oil Corp. et al | SPC | 12/18/78 |
| Apache Corporation et al | SPC | 11/3/78 |
| Argonaut Energy Inc. et al | SPC | 3/31/78 |
| Argonaut Energy Inc. et al | SPC | 3/31/78 |
| Argonaut Energy Inc. et al | SPC | 3/31/78 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule No. | Date |
|---|---|---|
| Glenn B. & Mildred Babcock | SPC | 7/24/78 |
| B&B Farm Industries Inc | SPC | 11/29/78 |
| Pauline A. & Leroy Beckwith | SPC | 7/11/78 |
| Phillip F. Beeler | SPC | 1/16/78 |
| Phillip F. Beeler | SPC | 10/6/78 |
| Bellwether Ltd | SPC | 6/1/78 |
| Benson Mineral Group Inc | SPC | 2/15/78 |
| F. E. Bernsen | SPC | 5/6/58 |
| Brandt Oil Company | SPC | 3/15/78 |
| Brandt Oil Company | SPC | 3/15/78 |
| Bridger Pet Corp | SPC | 2/23/78 |
| B. M. Britain | SPC | 7/10/58 |
| Broughton Oil Co | SPC | 11/13/78 |
| The Maurice L. Brown Co | SPC | 4/1/78 |
| Butler Resources Co | SPC | 12/11/75 |
| Butler Resources Co | SPC | 9/27/78 |

**Small Producer Contracts Volume II**

| | | |
|---|---|---|
| Calvin Petroleum Corp | SPC | 10/10/78 |
| Calvin Petroleum Corp | SPC | 1/3/79 |
| John P. Castleman, Jr | SPC | 9/14/78 |
| John P. Castleman, Jr | SPC | 10/4/78 |
| Champlin Exploration Inc | SPC | 10/25/78 |
| Cherokee Resources Inc | SPC | 5/30/78 |
| Cleroy, Inc | SPC | 5/16/79 |
| Clifford Resources, Inc | SPC | 6/7/78 |
| Colonial Royalty Co | SPC | 5/6/58 |
| Continental Gas Trans. Co | SPC | 9/28/78 |
| Roy E. Cooper | SPC | 8/10/78 |
| Cotton Petroleum Corp | SPC | 10/5/78 |
| Cotton Petroleum Corp | SPC | 1/3/79 |
| Cotton Petroleum Corp | SPC | 7/20/78 |
| Cotton Petroleum Corp | SPC | 8/11/78 |
| Dalco Oil Company | SPC | 5/8/58 |
| Damson Oil Corp | SPC | 12/1/78 |
| Darnell Drilling Inc | SPC | 7/11/78 |
| Davis Oil Company, et al | SPC | 7/4/77 |
| Davis Oil Company, et al | SPC | 7/8/77 |
| Davis Oil Company, et al | SPC | 3/14/78 |
| Davis Oil Company, et al | SPC | 3/14/78 |
| Davis Oil Company, et al | SPC | 3/15/78 |
| Davis Oil Company, et al | SPC | 3/15/78 |
| Davis Oil Company, et al | SPC | 3/16/78 |
| Davis Oil Company, et al | SPC | 3/16/78 |
| Davis Oil Company, et al | SPC | 3/17/78 |
| Davis Oil Company, et al | SPC | 3/17/78 |
| Davis Oil Company, et al | SPC | 10/23/78 |
| Decalta International Corp | SPC | 7/7/78 |
| Devon Corporation | SPC | 9/5/78 |
| Cub Dillard, Jr | SPC | 6/8/78 |
| Eagle Exploration Co. Inc | SPC | 10/5/78 |
| Eason Oil Company | SPC | 6/8/78 |
| ENI Exploration Program/1975 | SPC | 1/7/77 |
| ENI Oil & Gas | SPC | 11/16/78 |
| Exploration Associates | SPC | 9/21/78 |

**Small Producer Contracts Volume III**

| | | |
|---|---|---|
| Husky Oil | SPC | 2/13/78 |
| Falcon Petroleum | SPC | 6/20/78 |
| Farmer's Royalty Pool | SPC | 8/28/78 |
| Filon Exploration Corp | SPC | 11/17/78 |
| First National Oil, Inc | SPC | 4/2/78 |
| First National Oil, Inc | SPC | 5/13/78 |
| Flag-Redjern Oil Company | SPC | 4/27/69 |
| Funk Petroleum | SPC | 7/20/78 |
| Gomaro Inc | SPC | 11/1/78 |
| Gungoll & Gungoll | SPC | 6/9/78 |
| Gungoll & Gungoll | SPC | 7/11/78 |
| Henry H. Gungoll Assoc | SPC | 5/8/78 |
| Henry H. Gungoll Assoc | SPC | 7/19/78 |
| Hudson Ohio Oil | SPC | 5/10/72 |
| Robert L. Hadwiger | SPC | 3/1/78 |
| Robert L. Hadwiger | SPC | 4/20/78 |
| Robert L. Hadwiger | SPC | 5/15/78 |
| Hasada Inc | SPC | 7/3/78 |
| Hasada Inc | SPC | 7/24/78 |
| Hasada Inc | SPC | 7/24/78 |
| H & L Operating Company | SPC | 5/19/78 |
| H & L Operating Company | SPC | 7/20/78 |
| F. M. Holker | SPC | 3/23/60 |
| Houston Domestic Oil | SPC | 9/29/78 |
| Owen Hulsey | SPC | 7/5/78 |
| Husky Oil | SPC | 3/1/78 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Husky Oil | SPC | 3/1/78 |
| **Small Producer Contracts Volume IV** | | |
| Jico, Inc | SPC | 3/15/78 |
| Kennedy & Mitchell, Inc | SPC | 9/18/78 |
| Kirby Petroleum Co. et al | SPC | 5/6/58 |
| Roland Kletke | SPC | 5/22/78 |
| Laclede Gas Co | SPC | 9/1/78 |
| Laclede Gas Co | SPC | 9/1/78 |
| Ladd Petroleum Corp | SPC | 11/30/78 |
| Leede Exploration | SPC | 8/7/78 |
| Don Leeman | SPC | 10/24/78 |
| Lowrys Lease Management | SPC | 4/17/78 |
| **Small Producer Contracts Volume V** | | |
| Magnatex Corp | SPC | 7/5/78 |
| Maguire Oil Co. Opr. et al | SPC | 5/30/78 |
| Dorothy McGill | SPC | 5/24/78 |
| Gene McGill | SPC | 5/24/78 |
| Gene McGill | SPC | 5/23/78 |
| Gene McGill | SPC | 8/21/78 |
| Menbourne Oil Company | SPC | 10/30/78 |
| Menbourne Oil Company | SPC | 10/30/78 |
| Menbourne Oil Company | SPC | 10/30/78 |
| Mowhawk Energy Corp | SPC | 10/6/78 |
| Multistate Oil Properties | SPC | 7/10/78 |
| Murfin Drilling | SPC | 10/28/77 |
| National Coop Ref. Assoc | SPC | 6/12/77 |
| Natomas | SPC | 8/28/78 |
| Natomas | SPC | 10/16/78 |
| Nielson Enterprises Inc | SPC | 3/16/79 |
| Nielson Enterprises Inc | SPC | 11/10/78 |
| North Am Exploration Co | SPC | 8/13/75 |
| Nova Energy Corp. et al | SPC | 5/24/78 |
| Okmar Oil Company et al | SPC | 12/15/78 |
| **Small Producer Contracts Volume VI** | | |
| P & O Oil Corporation | SPC | 6/28/78 |
| Pacific Oil & Gas Co | SPC | 7/5/78 |
| Panhandle Western Gas Co | SPC | 3/13/79 |
| Petrodynamics Inc | SPC | 1/17/66 |
| Petrodynamics Inc | SPC | 4/16/65 |
| Petrodynamics Inc | SPC | 11/15/61 |
| Petro-Lewis Corporation | SPC | 1/15/79 |
| Picknell Drilling Company | SPC | 2/16/78 |
| Rope Oil Company | SPC | 5/17/78 |
| **Small Producer Contracts Volume VII** | | |
| Sandlin Oil | SPC | 8/17/78 |
| Viersen & Sant | SPC | 6/12/78 |
| Scarten Petroleum Inc | SPC | 8/21/78 |
| Phoebe Schermerhen | SPC | 5/6/58 |
| SB & KW Schuster | SPC | 7/20/78 |
| Singer Fleischaker Royalty | SPC | 6/6/78 |
| Sovereign Exploration Co | SPC | 10/23/78 |
| Swala Oil & Gas | SPC | 11/27/78 |
| **Small Producer Contracts Volume VIII** | | |
| Texas Oil & Gas Corp | SPC | 6/6/78 |
| Texas Oil & Gas Corp | SPC | 6/6/78 |
| Texas Oil & Gas Corp | SPC | 7/19/78 |
| Texas Oil & Gas Corp | SPC | 11/10/78 |
| Texas Oil & Gas Corp | SPC | 11/10/78 |
| Texas Oil & Gas Corp | SPC | 11/10/78 |
| Texas Oil & Gas Corp | SPC | 11/10/78 |
| Texas Oil & Gas Corp | SPC | 11/10/78 |
| Tuthill & Barbee | SPC | 11/9/78 |
| Tuthill & Barbee | SPC | 11/9/78 |
| Tuthill & Barbee | SPC | 11/9/78 |
| Tuthill & Barbee | SPC | 11/9/78 |
| Tuthill & Barbee | SPC | 6/6/78 |
| Tuthill & Barbee | SPC | 8/21/78 |
| Tuthill & Barbee | SPC | 7/28/78 |
| L.O. Ward Oil Co | SPC | 9/22/78 |
| Wessely Energy Corporation | SPC | 7/28/78 |
| Western Gas Systems, Ltd | SPC | 8/15/78 |
| Whiteman Indus. Inc. et al | SPC | 5/18/78 |
| H. L. Willett | SPC | 6/20/78 |
| H. L. Willett | SPC | 6/20/78 |
| H. L. Willett | SPC | 6/20/78 |
| Woods Petroleum Corp | SPC | 7/27/78 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| XO Exploration Inc | SPC | 3/31/78 |
| **Large Producers Supplement** | | |
| Panhandle Western Gas | Pending | 10/26/78 |
| Terra Resources, Inc | Pending | 9/25/78 |
| Texaco, Inc | Pending | 9/29/78 |
| Texaco, Inc | Pending | 11/6/78 |
| **Type "D" Area Rate Contracts Volume I** | | |
| Anadarko Production Co. | 230 | 4/21/77 |
| Anadarko Production Co. | 231 | 2/14/77 |
| Anadarko Production Co. | 233 | 9/12/77 |
| Anadarko Production Co. | 244 | 4/25/78 |
| American Natural Gas Prod. | 031 | 5/25/77 |
| Amoco Production Co. | 194 | 1/18/57 |
| Amoco Production Co. | 221 | 3/20/58 |
| Amoco Production Co. | 223 | 3/5/58 |
| Amoco Production Co. | 629 | 11/13/57 |
| Amoco Production Co. | 690 | 4/28/75 |
| Amoco Production Co. | 743 | 4/1/77 |
| Anadarko Production Co. | 168 | 9/1/59 |
| Anadarko Production Co. | 177 | 4/8/73 |
| Anadarko Production Co. | 186 | 3/1/61 |
| Anadarko Production Co. | 213 | 6/13/75 |
| Anadarko Production Co. | 215 | 8/1/75 |
| Anadarko Production Co. | 216 | 9/1/59 |
| Anadarko Production Co. | 217 | 7/11/75 |
| Anadarko Production Co. | 218 | 11/28/75 |
| Anadarko Production Co. | 219 | 1/2/76 |
| Anadarko Production Co. | 226 | 8/26/76 |
| Anadarko Production Co. | 227 | 8/24/76 |
| Anadarko Production Co. | 228 | 12/13/76 |
| Anadarko Production Co. | 229 | 1/10/77 |
| Anadarko Production Co. | 233 | 3/11/77 |
| Anadarko Production Co. | 234 | 4/11/77 |
| Anadarko Production Co. | 236 | 4/25/77 |
| Anadarko Production Co. | 238 | 8/26/77 |
| Anadarko Production Co. | 240 | 10/31/77 |
| Ashland Exploration Co. | 125 | 4/16/56 |
| Ashland Exploration Co. | 078 | 4/27/60 |
| Ashland Exploration Co. | 135 | 11/1/58 |
| Ashland Exploration Co. | 141 | 5/25/60 |
| Ashland Exploration Co. | 145 | 2/9/61 |
| Ashland Exploration Co. | 148 | 10/20/61 |
| Ashland Exploration Co. | 153 | 5/6/63 |
| Ashland Exploration Co. | 172 | 12/16/64 |
| Atlantic Richfield Co. | 454 | 4/10/01 |
| Atlantic Richfield Co. | 422 | 6/23/59 |
| Atlantic Richfield Co. | 407 | 9/27/57 |
| Atlantic Richfield Co. | 273 | 4/17/63 |
| Ashland Exploration Co. | 177 | 5/19/66 |
| **Volume II** | | |
| Dorchester Gas Producing Co. | 002 | 10/4/56 |
| Mobil Oil Corporation | 054 | 5/13/47 |
| Mobil Oil Corporation | 223 | 12/22/59 |
| Mobil Oil Corporation | 246 | 7/13/60 |
| Mobil Oil Corporation | 248 | 8/15/60 |
| Mobil Oil Corporation | 233 | 7/21/60 |
| Mobil Oil Corporation | 301 | 1/22/60 |
| Mobil Oil Corporation | 303 | 12/19/60 |
| Mobil Oil Corporation | 325 | 10/25/60 |
| Mobil Oil Corporation | 363 | 10/8/64 |
| Mobil Oil Corporation | 332 | 12/9/66 |
| Mobil Oil Corporation | 394 | 12/30/66 |
| Northern Natural Gas Production Co. | 031 | 5/10/63 |
| Cabot Corporation | 035 | 10/15/56 |
| Cabot Corporation | 060 | 4/2/62 |
| Champlin Petroleum Co. | 148 | 10/1/76 |
| Cities Service Company | 252 | 2/2/59 |
| Cities Service Company | 256 | 2/2/59 |
| Cities Service Company | 432 | 1/5/76 |
| Cities Service Company | 438 | 10/11/76 |
| Cities Service Company | 452 | 6/27/77 |
| Cities Service Company | 456 | 6/22/77 |
| Cities Service Company | 465 | 5/5/77 |
| Cities Service Company | 259 | 3/17/61 |
| Enserch Exploration Inc. | 132 | 5/15/78 |
| Exxon Company U.S.A. | 602 | 8/29/77 |
| Vernon E. Faulconer et al. | 003 | 4/2/62 |
| Getty Oil Company | 321 | 4/2/62 |
| Getty Oil Company | 419 | 1/2/78 |
| Gulf Oil Corporation | 051 | 6/29/56 |
| Gulf Oil Corporation | 264 | 9/25/63 |
| Gulf Oil Corporation | 297 | 3/10/65 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Gulf Oil Corporation | 380 | 11/11/66 |
| Gulf Oil Corporation | 496 | 10/2/57 |
| Gulf Oil Corporation | 523 | 7/28/77 |
| Gulf Oil Corporation | 528 | 12/12/77 |
| Gulf Oil Corporation | 535 | 3/16/78 |
| J. M. Huber Corporation | 004 | 9/21/35 |
| Liquid Energy Corporation | 001 | 10/25/77 |
| McCulloch Oil & Gas Corp. | 013 | 11/20/75 |
| McCulloch Oil & Gas Corp. | 032 | 11/20/78 |
| Mesa Petroleum Co. et al. | 074 | 8/14/75 |
| Mesa Petroleum Co. et al. | 084 | 5/9/77 |
| Mobil Oil Corporation | 434 | 6/18/68 |
| Monsanto Company et al. | 086 | 8/25/66 |
| Palm Petroleum Corp. | 002 | 10/4/56 |
| **Volume III** | | |
| Diamond Shamrock Corp. | 086 | 11/7/77 |
| Texaco Inc. | 318 | 7/3/63 |
| Texaco Inc. | 444 | 4/10/70 |
| Texaco Inc. | 518 | 6/1/75 |
| Petroleum Inc. | 107 | 9/27/76 |
| Petroleum Inc. | 112 | 4/27/77 |
| Diamond Shamrock Corp. | 081 | 7/18/77 |
| Shell Oil Co. | 291 | 11/23/64 |
| Southland Royalty Co. | 033 | 3/2/77 |
| Sun Gas Co. | 582 | 12/3/76 |
| Superior Oil Co. | 126 | 8/22/67 |
| Texaco Inc. | 136 | 3/3/77 |
| Texaco Inc. | 152 | 11/15/76 |
| Texaco Inc. | 164 | 8/1/77 |
| Texaco Inc. | 171 | 12/19/77 |
| Texaco Inc. | 172 | 1/1/78 |
| Texaco Inc. | 173 | 3/24/77 |
| Texaco Inc. | 289 | 2/7/62 |
| Texaco Inc. | 351 | 3/1/65 |
| Texaco Inc. | 353 | 3/18/65 |
| Texaco Inc. | 558 | 4/10/63 |
| Texaco Oil & Gas Corp. | 099 | 3/3/72 |
| **Small Producer Contract Volume I** | | |
| Aegis Corp. | SPC | 11/9/76 |
| Bob F. Alle | SPC | 2/1/78 |
| Allied Material's Corp. et al. | SPC | 1/20/77 |
| Alpine Drilling Company | SPC | 7/5/76 |
| E. T. Anderson | SPC | 12/30/75 |
| Robt. G. Anderson | SPC | 1/1/78 |
| Argonaut Energy Inc. et al. | SPC | 4/5/76 |
| Argonaut Energy Inc. et al. | SPC | 10/8/76 |
| Argonaut Energy Inc. et al. | SPC | 4/25/77 |
| Argonaut Energy Inc. et al. | SPC | 7/29/77 |
| Argonaut Energy Inc. et al. | SPC | 7/24/78 |
| Argonaut Energy Inc. et al. | SPC | 7/20/78 |
| Argonaut Energy Inc. et al. | SPC | 8/23/78 |
| Argonaut Energy Inc. et al. | SPC | 6/22/77 |
| Jerry D. Armstrong | SPC | 3/1/76 |
| Jerry D. Armstrong | SPC | 2/7/77 |
| Donald L. Bagwell | SPC | 4/20/76 |
| B&B Farm Industries, Inc. | SPC | 11/10/77 |
| J. H. Bander | SPC | 2/7/77 |
| J. H. Bander | SPC | 3/1/76 |
| Banta & Hatch | SPC | 3/1/76 |
| Banta & Hatch | SPC | 3/1/76 |
| Barnett Oil Company | SPC | 12/1/76 |
| Barnett Oil Company | SPC | 12/1/76 |
| Charles Barr et al. | SPC | 9/29/77 |
| Charles Barr et al. | SPC | 9/29/77 |
| BCS Natural Resources Corp. | SPC | 5/5/75 |
| Beard & Leeman | SPC | 3/7/77 |
| Phillip F. Beeler | SPC | 3/11/76 |
| Bellwether, Ltd. | SPC | 7/1/77 |
| Bellwether, Ltd. | SPC | 6/7/77 |
| Clyde Beymer, Jr. & C. E. Beymer | SPC | 10/20/78 |
| Dallas C. Biggers | SPC | 2/16/76 |
| Dallas C. Biggers | SPC | 5/19/76 |
| Blair Oil Company | SPC | 12/1/76 |
| Blair Oil Company | SPC | 12/1/76 |
| Blair Oil Company | SPC | 12/1/78 |
| Blair Oil Company | SPC | 7/3/78 |
| Blair Oil Company | SPC | 8/7/78 |
| Bluewater Oil & Gas et al. | SPC | 3/21/77 |
| Borell & Brown | SPC | 3/3/76 |
| C. F. Brown & Company | SPC | 11/25/74 |
| C. F. Brown & Company | SPC | 5/15/72 |
| G. W. Brewer | SPC | 12/22/75 |
| Bridger Petroleum Corp. | SPC | 12/3/76 |
| Brook Hall Oil Corp. | SPC | 5/1/67 |
| Tom Brown Inc. | SPC | 3/1/76 |
| Ray O. Brownlie | SPC | 3/1/76 |
| Ray O. Brownlie | SPC | 2/7/77 |
| Ray O. Brownlie | SPC | 9/26/77 |
| M. Peyton Bucy | SPC | 9/8/77 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| R. L. Burns Corp. | SPC | 10/29/76 |
| B&W Oil & Gas | SPC | 8/1/77 |

Small Producer Contracts Volume II

| | | |
|---|---|---|
| John P. Castleman, Jr. | SPC | 5/19/77 |
| John P. Castleman, Jr. | SPC | 5/19/77 |
| John P. Castleman, Jr. | SPC | 5/19/77 |
| John P. Castleman, Jr. | SPC | 5/19/77 |
| Central Leduc Oils Inc. | SPC | 8/2/66 |
| Chamberlain Family Group | SPC | 1/29/76 |
| Jerry Chambers | SPC | 6/20/77 |
| Champlin Exploration Inc. | SPC | 7/21/75 |
| Champlin Exploration Inc. | SPC | 2/28/78 |
| Champlin Exploration Inc. | SPC | 1/19/78 |
| H. A. Chapman et al. | SPC | 5/21/76 |
| Cherokee, Ltd. | SPC | 2/24/76 |
| Cheyenne Petroleum Company | SPC | 7/21/75 |
| Cimarron Petroleum Corp. | SPC | 7/27/76 |
| Col. Gas Compression Co. | SPC | 2/1/77 |
| Col. Gas Compression Co. | SPC | 2/1/77 |
| Colt Oil Inc. | SPC | 12/30/75 |
| Con Petro | SPC | 8/25/75 |
| Continental Gas Tran. Co. | SPC | 9/23/75 |
| Continental Gas Tran. Co. | SPC | 5/20/77 |
| Continental Gas Tran. Co. | SPC | 5/20/77 |
| Continental Gas Tran. Co. | SPC | 10/26/77 |
| Consolidated Oil & Gas Inc., et al. | SPC | 3/31/77 |
| D. L. Cook | SPC | 9/26/77 |
| Cordillera Corporation | SPC | 6/7/77 |
| Corexcal Inc. | SPC | 9/24/64 |
| Cotton Petroleum Corp. | SPC | 9/5/75 |
| Cotton Petroleum Corp. | SPC | 1/23/76 |
| Cotton Petroleum Corp. | SPC | 9/5/75 |
| Cotton Petroleum Corp. | SPC | 3/13/78 |
| Edwin L. Cox | SPC | 8/2/66 |
| Edwin L. Cox | SPC | 5/28/57 |
| John L. Crawford | SPC | 4/15/75 |
| Maude P. Crawford | SPC | 4/19/76 |
| Maude P. Crawford | SPC | 4/19/76 |
| Douglas R. Cummings | SPC | 1/27/78 |
| Davis Oil Company, et al. | SPC | 8/19/77 |
| Davis Oil Company, et al. | SPC | 8/19/77 |
| Davis Oil Company, et al. | SPC | 8/19/77 |
| Decalta International Corp. | SPC | 9/24/64 |
| Decalta International Corp. | SPC | 7/1/75 |
| Del Resources | SPC | 2/14/77 |
| Dorchester Exploration Inc. | SPC | 2/25/76 |
| Raymond T. Duncan | SPC | 12/30/75 |
| Dyco | SPC | 5/1/75 |
| Earlsboro Oil & Gas Co. | SPC | 9/1/75 |
| Earlsboro Oil & Gas Co. | SPC | 9/16/77 |
| Energy Minerals Corp. | SPC | 1/2/76 |
| Energy Minerals Corp. | SPC | 1/2/76 |
| Energy Minerals Corp. | SPC | 1/2/76 |

Small Producer Contracts Volume III

| | | |
|---|---|---|
| Vernon E. Faulconer et al. | SPC | 4/2/60 |
| Vernon E. Faulconer et al. | SPC | 4/2/62 |
| Ferguson Oil Co. Inc. et al. | SPC | 2/9/70 |
| Ferguson Oil Co. Inc. et al. | SPC | 3/20/58 |
| Ferguson Oil Co. Inc. et al. | SPC | 11/19/76 |
| Ferguson Oil Co. Inc. et al. | SPC | 11/19/76 |
| Ferguson Oil Co. Inc. et al. | SPC | 5/10/77 |
| First National Oil, Inc. | SPC | 10/29/76 |
| Follet Operating Corp. | SPC | 8/1/77 |
| Follet Operating Corp. | SPC | 1/13/78 |
| Follet Operating Corp. | SPC | 5/12/78 |
| Follet Operating Corp. | SPC | 7/26/78 |
| R. L. Force, et al. | SPC | 2/12/76 |
| Foster Petroleum | SPC | 1/24/68 |
| Fraley Oil Co. | SPC | 4/17/78 |
| French & Walker, Inc. | SPC | 8/5/75 |
| Fuel Resources Development | SPC | 1/5/65 |
| GMC Oil & Gas Corp. | SPC | 3/31/66 |
| Gail B. Gore | SPC | 3/29/67 |
| Grave Petroleum Inc. | SPC | 1/19/68 |
| Graham Michaelis Drill. Co. | SPC | 2/4/58 |
| Graham Michaelis Drill. Co. | SPC | 10/4/56 |
| Graham Michaelis Drill. Co. | SPC | 11/1/56 |
| Graham Michaelis Drill. Co. | SPC | 4/16/68 |
| Graham Michaelis Drill. Co. | SPC | 4/27/77 |
| Grayrock Corp. | SPC | 5/10/77 |
| Grayrock Corp. | SPC | 7/31/77 |
| Grayrock Corp. | SPC | 10/31/77 |
| William Gruenerwald | SPC | 1/13/76 |
| William Gruenerwald | SPC | 1/6/78 |
| Hamilton Bros. Petro. Inc. | SPC | 5/9/60 |
| Hamilton Bros. Petro. Inc. | SPC | 8/17/77 |
| W.V. Harlow, et al. | SPC | 8/14/75 |
| Robert L. Haynie | SPC | 5/24/76 |
| Robert L. Haynie | SPC | 5/24/76 |
| H & L Operating Company | SPC | 3/30/61 |
| Holly Energy | SPC | 5/24/76 |
| Holly Energy | SPC | 5/24/76 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Holly Energy | SPC | 5/5/77 |
| Hugo Oils | SPC | 6/10/77 |
| Own Hulsey | SPC | 3/3/76 |

Small Producer Contracts Volume IV

| | | |
|---|---|---|
| Herman Geo. Kaiser et al. | SPC | 4/29/60 |
| Herman Geo. Kaiser et al. | SPC | 4/29/60 |
| Imperial Oil Co. | SPC | 4/5/72 |
| Imperial Oil Co. | SPC | 5/7/75 |
| Imperial Oil Co. | SPC | 5/7/75 |
| Imperial Oil Co. | SPC | 5/7/75 |
| Imperial Oil Co. | SPC | 5/3/76 |
| Imperial Oil Co. | SPC | 5/7/76 |
| Inca Oil Co. | SPC | 10/25/77 |
| Industrial Gas Services | SPC | 4/12/76 |
| Inca Oil Co. | SPC | 10/1/76 |
| Inca Oil Co. | SPC | 8/1/77 |
| Russel V. Johnson, et al. | SPC | 5/26/64 |
| Russel V. Johnson, et al. | SPC | 10/4/62 |
| Jones & Pellow Oil Co. | SPC | 8/7/75 |
| G. S. Joslin | SPC | 5/3/76 |
| G. S. Joslin | SPC | 4/25/74 |
| Kaiser-Francis Oper. Acct. | SPC | 10/1/77 |
| Herman Geo. Kaiser et al. | SPC | 8/15/60 |
| Herman Geo. Kaiser et al. | SPC | 8/15/60 |
| Herman Geo. Kaiser et al. | SPC | 10/27/66 |
| Herman Geo. Kaiser et al. | SPC | 10/8/65 |
| Herman Geo. Kaiser et al. | SPC | 10/19/66 |
| Herman Geo. Kaiser et al. | SPC | 7/11/66 |
| Herman Geo. Kaiser et al. | SPC | 8/5/66 |
| Herman Geo. Kaiser et al. | SPC | 8/28/75 |
| Herman Geo. Kaiser et al. | SPC | 8/28/75 |
| Herman Geo. Kaiser et al. | SPC | 4/26/65 |
| Herman Geo. Kaiser et al. | SPC | 4/26/65 |
| Herman Geo. Kaiser et al. | SPC | 7/31/77 |
| Kennedy & Mitchell Inc. | SPC | 3/20/58 |
| Wayne L. Kirkman | SPC | 7/9/75 |
| Koch Industries, Inc. | SPC | 1/12/76 |
| Krizman Enterprises | SPC | 4/13/76 |
| KRM Petroleum Corp. | SPC | 9/22/77 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 2/23/76 |
| Ladd Petroleum Corp. | SPC | 7/15/76 |
| Ladd Petroleum Corp. | SPC | 7/15/76 |
| D.R. Lauck Oil Co. Inc. | SPC | 10/17/77 |
| Lear Petroleum Corp. | SPC | 9/15/65 |
| Lear Petroleum Corp. | SPC | 8/2/68 |
| C.V. Lyman | SPC | 3/1/76 |

Small Producer Contracts Volume V

| | | |
|---|---|---|
| Macey & Mershon Oil Inc. | SPC | 3/10/76 |
| Macey & Mershon Oil Inc. | SPC | 3/10/76 |
| Macey & Mershon Oil Inc. | SPC | 4/1/76 |
| Macey & Mershon Oil Inc. | SPC | 4/1/76 |
| Macey & Mershon Oil Inc. | SPC | 7/1/76 |
| Macey & Mershon Oil Inc. | SPC | 7/1/76 |
| Macey & Mershon Oil Inc. | SPC | 8/25/76 |
| Macey & Mershon Oil Inc. | SPC | 8/25/76 |
| Macey & Mershon Oil Inc. | SPC | 8/25/76 |
| Macey & Mershon Oil Inc. | SPC | 8/25/76 |
| Magnatex Corp. | SPC | 7/21/75 |
| Maguire Oil Co. Opr. et al. | SPC | 5/30/78 |
| Maguire Oil Co. Opr. et al. | SPC | 5/30/78 |
| Robert L. Manning | SPC | 12/30/75 |
| T. Kieth Marks | SPC | 12/30/75 |
| Martin Oil Services Inc. | SPC | 5/27/77 |
| Martin Oil Services Inc. | SPC | 5/27/77 |
| Len Mayer | SPC | 5/24/76 |
| Len Mayer | SPC | 5/24/76 |
| Mesa Petroleum Co. et al. | SPC | 7/14/72 |
| Mesa Petroleum Co. et al. | SPC | 12/18/72 |
| Mesa Petroleum Co. et al. | SPC | 7/14/72 |
| Midland PRC Petro. Ptnship | SPC | 4/30/76 |
| Molz Oil Co. | SPC | 11/4/76 |
| Molz Oil Co. | SPC | 11/4/76 |
| Molz Oil Co. | SPC | 11/4/76 |
| W.A. Moncrief, Jr. | SPC | 6/29/78 |
| Montgomery Exploration Co. | SPC | 4/3/67 |
| Montgomery Exploration Co. | SPC | 12/15/77 |
| Mae Weeks Mueller | SPC | 4/12/76 |
| Multistate Oil Properties | SPC | 5/1/67 |
| Multistate Oil Properties | SPC | 1/10/77 |
| National Oil Co. | SPC | 9/22/76 |
| Natomas | SPC | 2/1/60 |
| Natomas | SPC | 4/8/63 |
| Natomas | SPC | 4/8/63 |
| Natomas | SPC | 4/8/63 |

Fixed Rate Contracts—Continued

| Seller | Rate schedule No. | Date |
|---|---|---|
| Natural Gas Anadarko Inc. | SPC | 7/27/76 |
| Nelson Petroleum Company | SPC | 3/8/76 |
| Nelson Petroleum Company | SPC | 3/8/76 |
| Nielson Enterprises Inc. | SPC | 3/15/76 |
| Nielson Enterprises Inc. | SPC | 3/15/76 |
| Nielson Enterprises Inc. | SPC | 3/15/76 |
| Nielson Enterprises Inc. | SPC | 3/15/76 |
| North American Royal, Inc. | SPC | 12/19/77 |
| North Central Oil Corp. | SPC | 5/1/76 |
| Northern Pump Co., et al. | SPC | 3/23/60 |
| Joseph T. O'Neill | SPC | 8/13/75 |
| Joseph T. O'Neill | SPC | 12/30/75 |
| W.B. Osborn Jr., et al. | SPC | 11/17/77 |
| W.B. Osborn Jr., et al. | SPC | 11/17/77 |
| W.B. Osborn Jr., et al. | SPC | 6/8/78 |
| W.B. Osborn Jr., et al. | SPC | 9/23/78 |
| W.B. Osborn Jr., et al. | SPC | 11/17/77 |
| Oxoco | SPC | 5/10/77 |

Small Producer Contracts Volume VI

| | | |
|---|---|---|
| R. J. Patrick | SPC | 12/30/66 |
| Phoenix Resources Company | SPC | 5/1/67 |
| Phoenix Resources Company | SPC | 5/1/67 |
| Phoenix Resources Company | SPC | 5/1/67 |
| Phoenix Resources Company | SPC | 5/1/67 |
| Phoenix Resources Company | SPC | 5/1/67 |
| Pacific Oil & Gas Company | SPC | 1/18/78 |
| Panhandle Investors | SPC | 6/10/75 |
| Panhandle Producing Co. et al. | SPC | 3/8/76 |
| Pandhandle Properties, Inc. | SPC | 6/16/76 |
| Par Petroleum Inc. | SPC | 1/31/78 |
| Partnership Properties | SPC | 10/1/76 |
| R. J. Patrick | SPC | 7/6/66 |
| Patrick Petroleum Co. | SPC | 1/17/77 |
| Payne Inc. | SPC | 12/8/75 |
| WC Payne & Joe M. Coleman | SPC | 8/1/77 |
| WC Payne & Joe M. Coleman | SPC | 8/1/77 |
| WC Payne & Joe M. Coleman | SPC | 9/6/77 |
| WC Payne & Joe M. Coleman | SPC | 1/28/78 |
| WC Payne & Joe M. Coleman | SPC | 1/28/78 |
| WC Payne & Joe M. Coleman | SPC | 9/21/78 |
| WC Payne & Joe M. Coleman | SPC | 9/22/78 |
| Richard Pearson | SPC | 4/14/78 |
| Petroleum Inc. | SPC | 9/27/76 |
| Petroleum Inc. | SPC | 4/27/77 |
| Petrorep Inc. | SPC | 9/24/64 |
| Petro-Search, Inc. | SPC | 3/23/60 |
| Phoenix Resources Company | SPC | 5/1/67 |
| Pinon Petroleum Corp. | SPC | 5/19/78 |
| Powell & Stone | SPC | 3/1/76 |
| Powell & Stone | SPC | 12/2/76 |
| Powell & Stone | SPC | 12/2/76 |
| Proctor Inc. | SPC | 10/1/76 |
| John F. Ranchoo | SPC | 3/1/76 |
| Read & Stevens, Inc. | SPC | 7/21/77 |
| Reserve Oil Inc. | SPC | 12/11/75 |
| Resources Development Corp. | SPC | 5/10/76 |
| J. Mark Richardson | SPC | 11/10/77 |
| J. Mark Richardson | SPC | 11/10/77 |
| Richome Oil & Gas Co. | SPC | 5/31/76 |
| Ran Ricks, Jr. | SPC | 10/1/76 |
| Ran Ricks, Jr. | SPC | 8/1/77 |
| Ran Ricks, Jr. | SPC | 8/1/77 |
| Ran Ricks, Jr. | SPC | 11/14/77 |
| Ran Ricks, Jr. | SPC | 1/28/78 |
| Ran Ricks, Jr. | SPC | 4/6/78 |
| JI & BM Roberts | SPC | 2/25/76 |
| JI & BM Roberts | SPC | 2/25/76 |
| Dale Robinson, et al. | SPC | 2/15/77 |
| Romano & Romano Oil Property & Mgmt. | SPC | 3/2/78 |

Small Producer Contracts Volume VII

| | | |
|---|---|---|
| Samson Resources | SPC | 8/30/67 |
| Samson Resources | SPC | 10/6/65 |
| Samson Resources | SPC | 4/17/69 |
| Samson Resources | SPC | 2/1/78 |
| Samson Resources | SPC | 2/1/78 |
| Scandlin Oil | SPC | 5/31/78 |
| Scarten Petroleum, Inc. | SPC | 8/19/78 |
| Scarten Petroleum, Inc. | SPC | 10/1/76 |
| Scarten Petroleum, Inc. | SPC | 6/10/77 |
| Scarten Petroleum, Inc. | SPC | 6/10/77 |
| Scarten Petroleum, Inc. | SPC | 6/10/77 |
| Scarten Petroleum, Inc. | SPC | 8/1/77 |
| Seneca Oil | SPC | 8/1/77 |
| Seneca Oil | SPC | 11/14/77 |
| Seneca Oil | SPC | 1/28/78 |
| Seneca Oil | SPC | 8/15/78 |
| Serban | SPC | 5/30/78 |
| Serban | SPC | 8/1/78 |
| Ethelyn Shadid | SPC | 3/23/60 |
| George B. Shaw | SPC | 4/21/65 |
| George B. Shaw | SPC | 9/15/65 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule | No. | Date |
|---|---|---|---|
| J. D. Simmons Inc. | SPC | | 2/4/76 |
| V.I. Smith | SPC | | 12/30/75 |
| Spradling Drilling Co. | SPC | | 8/27/76 |
| Statex Petroleum | SPC | | 12/31/77 |
| St. Joe Petroleum Corp. | SPC | | 5/9/77 |
| Suco Oil Corp. | SPC | | 11/19/76 |
| Suco Oil Corp. | SPC | | 11/19/76 |
| David R. Sylvan | SPC | | 12/3/76 |

**Small Producer Contracts Volume VIII**

| | | | |
|---|---|---|---|
| The Termo Company | SPC | | 10/27/77 |
| R. L. Taylor | SPC | | 2/12/76 |
| R. L. Taylor | SPC | | 2/12/76 |
| John A. Taylor | SPC | | 4/9/79 |
| John A. Taylor | SPC | | 4/28/78 |
| R. Clark Taylor | SPC | | 6/19/75 |
| Texas Energies Inc. et al. | SPC | | 1/25/78 |
| Texas Oil & Gas Company | SPC | | 1/22/76 |
| Texas Oil & Gas Company | SPC | | 6/2/77 |
| Texas Oil & Gas Corp. | SPC | | 8/31/77 |
| Texas Oil & Gas Corp. | SPC | | 9/1/77 |
| Texas Oil & Gas Corp. | SPC | | 9/1/77 |
| Texas Oil & Gas Corp. | SPC | | 9/29/77 |
| Texas Oil & Gas Corp. | SPC | | 1/25/78 |
| C. H. Todd Inc. | SPC | | 4/12/62 |
| Tumbleweed Production Co. | SPC | | 6/6/77 |
| Tuthill & Barbee | SPC | | 7/21/75 |
| Unit Drilling Co., et al. | SPC | | 5/12/77 |
| Venture 1200 | SPC | | 7/8/76 |
| Voiles, et al. | SPC | | 4/2/59 |
| James B. Wallace | SPC | | 3/1/76 |
| James B. Wallace | SPC | | 2/7/77 |
| Ruby I. Webb | SPC | | 3/23/60 |
| West Plains Royalty Co. Inc. | SPC | | 1/27/78 |
| Western Gas Processors | SPC | | 1/1/78 |
| Western Gas Processors | SPC | | 1/1/78 |
| Western Gas Processors | SPC | | 1/1/78 |
| H. L. Willett | SPC | | 2/2/76 |
| H. L. Willett | SPC | | 2/2/76 |
| H. L. Willett | SPC | | 7/19/77 |
| H. L. Willett | SPC | | 3/17/78 |
| Winter Drilling Inc. | SPC | | 7/20/76 |
| Robert R. Wilson, et al. | SPC | | 3/1/61 |
| R. O. Wilkin | SPC | | 3/23/60 |
| Wolf Energy Co. | SPC | | 1/7/76 |
| Woods Petroleum Corporation | SPC | | 10/26/76 |
| Woods Petroleum Corporation | SPC | | 2/14/77 |
| Woods Petroleum Corporation | SPC | | 2/14/77 |
| Zenith Drilling Corporation | SPC | | 12/12/75 |
| Zenith Drilling Corporation | SPC | | 2/7/78 |
| Yucca Petroleum Company | SPC | | 8/23/56 |
| Yucca Petroleum Company | SPC | | 4/25/60 |

**Large Producers Supplement**

| | | | |
|---|---|---|---|
| Gulf Oil Corporation | Pending | | 1/30/57 |
| Gulf Oil Corporation | Pending | | 1/30/57 |
| Southland Royalty Company | Pending | | 9/21/78 |

**Contracts Which, On Their Face, Appear To Authorize Collection Of NGPA Ceiling Prices Volume I**

| | | | |
|---|---|---|---|
| Ashland Exploration Inc. | | 108 | 11/19/53 |
| Ashland Exploration Inc. | | 109 | 11/19/53 |
| Ashland Exploration Inc. | | 120 | 11/19/53 |
| Ashland Exploration Inc. | | 121 | 11/19/53 |
| Atlantic Richfield Co. | | 339 | 8/30/51 |
| Ashland Exploration Inc. | | 247 | 3/23/60 |

**Volume II**

| | | | |
|---|---|---|---|
| Kerr McGee Corporation | | 066 | 6/15/60 |
| Cabot Corporation | | 122 | 6/28/78 |
| Cities Service Company | | 197 | 1/22/65 |
| Cities Service Company | | 148 | 3/3/61 |
| Coltexo Corporation | | 002 | 11/19/53 |
| Continental Oil Company | | 234 | 3/23/60 |
| Cabot Corporation | | 047 | 1/19/60 |
| Gulf Oil Corporation | | 293 | 2/1/65 |

**Volume III**

| | | | |
|---|---|---|---|
| Diamond Shamrock Corp. | | 093 | 9/1/78 |
| Diamond Shamrock Corp. | | 094 | 8/7/78 |
| Shell Oil Co. | | 021 | 8/30/51 |
| Shell Oil Co. | | 250 | 2/14/61 |
| Shell Oil Co. | | 252 | 6/6/61 |
| Shell Oil Co. | | 267 | 3/23/60 |
| Shell Oil Co. | | 276 | 5/31/62 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule | No. | Date |
|---|---|---|---|
| Shell Oil Co. | | 317 | 12/28/64 |
| Shell Oil Co. | | 332 | 1/20/66 |
| Shell Oil Co. | | 335 | 4/15/66 |
| Shell Oil Co. | | 353 | 11/17/67 |
| Shell Oil Co. | | 360 | 3/12/68 |
| Shell Oil Co. | | 380 | 4/1/70 |
| Superior Oil Co. | | 151 | 1/23/57 |
| Phillips Petroleum Co. | | 005 | 9/22/59 |
| Phillips Petroleum Co. | | 053 | 7/2/52 |
| Phillips Petroleum Co. | | 290 | 8/24/56 |
| Phillips Petroleum Co. | | 296 | 6/20/57 |
| Phillips Petroleum Co. | | 327 | 9/2/58 |
| Phillips Petroleum Co. | | 353 | 9/22/59 |
| Phillips Petroleum Co. | | 399 | 4/18/63 |
| Phillips Petroleum Co. | | 409 | 12/2/64 |
| Phillips Petroleum Co. | | 412 | 5/11/65 |
| Phillips Petroleum Co. | | 414 | 9/16/63 |
| Phillips Petroleum Co. | | 418 | 11/11/65 |
| Phillips Petroleum Co. | | 419 | 11/23/65 |
| Phillips Petroleum Co. | | 421 | 10/25/65 |
| Phillips Petroleum Co. | | 432 | 11/30/66 |
| Phillips Petroleum Co. | | 446 | 3/18/68 |
| Phillips Petroleum Co. | | 447 | 3/25/68 |
| Phillips Petroleum Co. | | 449 | 6/18/68 |
| Phillips Petroleum Co. | | 476 | 2/6/70 |
| Phillips Petroleum Co. | | 478 | 4/15/70 |
| Phillips Petroleum Co. | | 479 | 3/1/70 |
| Phillips Petroleum Co. | | 528 | 7/12/73 |
| Phillips Petroleum Co. | | 561 | 10/1/73 |
| Phillips Petroleum Co. | | 565 | 3/1/70 |
| Phillips Petroleum Co. | | 567 | 4/5/72 |
| Phillips Petroleum Co. | | 583 | 2/12/76 |
| Phillips Petroleum Co. | | 605 | 3/11/77 |
| Phillips Petroleum Co. | | 620 | 7/15/63 |

**Small Producer Contracts Volume I**

| | | | |
|---|---|---|---|
| Alpar Resources Inc. | SPC | | 5/3/78 |
| Andover Oil Company | SPC | | 4/23/79 |
| ASA Energy Corp. | SPC | | 4/4/79 |
| James P. Biddick | SPC | | 4/16/79 |
| Blaik Oil Company | SPC | | 3/1/79 |
| Milton Blakemore | SPC | | 1/23/79 |
| Veldo H. Brewer Co., Ltd. | SPC | | 4/17/79 |
| Richard E. Brunsterer | SPC | | 4/10/79 |
| Blair Oil Company | SPC | | 2/26/79 |
| B&W Oil & Gas Co. | SPC | | 2/28/79 |
| B&W Oil & Gas Co. | SPC | | 2/28/79 |

**Small Producer Contracts Volume II**

| | | | |
|---|---|---|---|
| John P. Castleman, Jr. | SPC | | 4/3/79 |
| Continental Gas Tran. Co. | SPC | | 1/4/79 |
| Douglas R. Cummings | SPC | | 4/4/79 |
| Davis Oil Company, et al. | SPC | | 12/16/78 |
| Davis Oil Company, et al. | SPC | | 12/16/78 |
| Davis Oil Company, et al. | SPC | | 4/16/79 |
| Cub F. Dillard, Jr. | SPC | | 5/5/79 |
| Dyco | SPC | | 4/20/79 |
| Dyco | SPC | | 4/20/79 |

**Small Producer Contracts Volume III**

| | | | |
|---|---|---|---|
| Ferguson Oil Co. Inc. et al. | SPC | | 8/31/62 |
| Flag-Redjern Oil Company | SPC | | 7/10/78 |
| Funk Petroleum | SPC | | 12/14/78 |
| Gasanaderko, Ltd. | SPC | | 4/6/79 |
| GHK Company | SPC | | 2/5/79 |
| Joseph Gould | SPC | | 2/26/79 |
| Gulf Energy | SPC | | 12/8/78 |
| Robert L. Hadwiger | SPC | | 1/24/79 |
| Harper Oil | SPC | | 1/23/79 |
| J. D. Helms | SPC | | 4/10/79 |
| Holly Energy | SPC | | 3/30/79 |

**Small Producer Contracts Volume IV**

| | | | |
|---|---|---|---|
| Herman Geo. Kaiser et al. | SPC | | 1/23/57 |
| Imperial Oil Co. | SPC | | 4/14/78 |
| Imperial Oil Co. | SPC | | 7/7/78 |
| Imperial Oil Co. | SPC | | 7/10/78 |
| Herman Geo. Kaiser et al. | SPC | | 4/20/79 |
| Kansas K-Tex Joint Venture | SPC | | 1/12/79 |

**Small Producer Contracts Volume V**

| | | | |
|---|---|---|---|
| Dorothy McGill | SPC | | 4/30/79 |
| Gene McGill | SPC | | 4/2/79 |
| Mesa Petroleum Co., et al. | SPC | | 3/1/79 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule | No. | Date |
|---|---|---|---|
| Mesa Petroleum Co., et al. | SPC | | 3/1/79 |
| Monexco | SPC | | 1/19/79 |
| Moody Energy Company | SPC | | 1/29/79 |
| Natomas | SPC | | 4/20/79 |
| Natomas | SPC | | 4/20/79 |
| Frank G. & Patricia J. Ofer | SPC | | 5/2/79 |

**Small Producer Contracts Volume VI**

| | | | |
|---|---|---|---|
| Panhandle Coop Royal. Co. | SPC | | 4/4/79 |
| Panhandle Coop Royal. Co. | SPC | | 4/4/79 |
| Panhandle Western Gas Co. | SPC | | 12/13/78 |
| Petroleum Associates Fund | SPC | | 12/12/63 |
| Page Petroleum Inc. | SPC | | 11/11/65 |
| Payne Petroleum Corp. | SPC | | 2/12/79 |
| Petroleum Investments Ltd. | SPC | | 3/23/79 |
| Petroleum Investments Ltd. | SPC | | 3/23/79 |
| Ricks Exploration Corp. | SPC | | 2/7/79 |
| Ran Ricks, Jr. | SPC | | 2/26/79 |
| Rocket Oil Company | SPC | | 4/6/79 |

**Small Producer Contracts Volume VII**

| | | | |
|---|---|---|---|
| Santa Fe Energy | SPC | | 10/13/65 |
| Santa Fe Energy | SPC | | 10/13/65 |
| Santa Fe Energy | SPC | | 10/13/65 |
| Sarkeys, Inc. | SPC | | 11/7/78 |
| Sandin Oil | SPC | | 4/30/79 |
| Sands SFGS Oil & Gas | SPC | | 11/19/79 |
| Sands SFGS Oil & Gas | SPC | | 11/19/79 |
| Varsen & Sant | SPC | | 4/17/79 |
| Seneca Resources | SPC | | 12/13/78 |
| Service Drilling | SPC | | 2/20/79 |
| 1776 Inc. | SPC | | 5/3/79 |
| Singer Brothers | SPC | | 4/4/79 |
| Southland Royalty Company | SPC | | 4/27/79 |
| Spearfox Gran Co. | SPC | | 4/30/79 |
| C. Dale Stamquist | SPC | | 1/29/79 |

**Small Producer Contracts Volume VIII**

| | | | |
|---|---|---|---|
| Texas American Oil Corp. | SPC | | 1/15/79 |
| Texas Oil & Gas Corp. | SPC | | 4/9/79 |
| Trigg Drilling Company | SPC | | 4/30/79 |
| Wessely Energy Corp. | SPC | | 2/28/79 |
| E.B. Yale | SPC | | 3/23/60 |

**Large Producers Supplement**

| | | | |
|---|---|---|---|
| Shell Oil Company & Atlantic Richfield | Pending | | 8/30/51 |

**Miscellaneous Volume I**

| | | | |
|---|---|---|---|
| Amerada Hess Corporation | | 138 | 6-16-66 |

**Volume II**

| | | | |
|---|---|---|---|
| Cities Service Company | | 252 | 2-2-59 |
| Cities Service Company | | 256 | 2-2-59 |
| Enserch Exploration, Inc. | | 001 | 7-1-75 |
| Enserch Exploration, Inc. | | 119 | 7-1-75 |
| Gulf Oil Corporation | | 371 | 8-5-66 |
| Helmerich & Payne, Inc. | | 028 | 9-1-59 |

**Volume III**

| | | | |
|---|---|---|---|
| Sun Gas Co. | | 204 | 7-20-66 |
| Texaco, Inc. | | 353 | 3-18-65 |
| Texaco, Inc. | | 558 | 4-10-63 |

**Small Producer Contracts Volume I**

| | | | |
|---|---|---|---|
| An-Son Corporation | SPC | | 7-12-66 |

**Small Producer Contracts Volume IV**

| | | | |
|---|---|---|---|
| Herman Geo. Kaiser, et al. | SPC | | 4-8-65 |

**Fixed Rate Contracts—Continued**

| Seller | Rate schedule No. | Date |
|---|---|---|
| **Small Producer Contracts Volume VI** | | |
| Ratliff Drilling Co. | SPC | 6-28-66 |
| **Small Producer Contracts Volume VII** | | |
| Sabine Production Co. | SPC | 7-12-66 |
| **Small Producer Contracts Volume VIII** | | |
| The Termo Company | SPC | 10-27-77 |

[FR Doc. 80-1415 Filed 1-18-80; 8:45 am]
BILLING CODE 6450-01-M

[Docket No. GP80-21]

## Texas Eastern Transmission Corp.; Notice of Third-Party Protests [1]

Issued: January 10, 1980.

Take notice that in accordance with the procedures established by the Federal Energy Regulatory Commission (Commission) in Order No. 23-B [2], and "Order on Rehearing of Order No. 23-B," [3] the staff of the Commission protested on December 14, 1979, the assertion by the Texas Eastern Transmission Corporation (Texas Eastern) and certain producers that the contracts identified in its protest constitute contractual authority for the producer to charge and collect applicable maximum lawful prices under the Natural Gas Policy Act of 1978 (NGPA).

Staff stated that the language of the contracts contained in Appendix A of this notice does not constitute authority for the producer to increase prices to the extent claimed by Texas Eastern in its evidentiary submission.

Take further notice that on December 10, 1979 the Associated Gas Distributors (AGD) filed a Supplemental Third-Party Protest to their protest of October 15, 1979. AGD protests that the contracts listed in Appendix B do not constitute contractual authority for the producers to increase prices to the applicable NGPA maximum lawful price.

Any person, other than the pipeline and the seller, desiring to be heard or to make any response with respect to these protests should file with the Commission on or before January 24, 1980, a petition to intervene in accordance with 18 CFR 1.8. The seller need not file for intervention because under 18 CFR § 154.94(j)(4)(ii), the seller in the first sale is automatically joined as a party.

Kenneth F. Plumb,
*Secretary.*

**Appendix A**

| Seller | Rate schedule No. or contract date |
|---|---|
| American Petrofina Co. of Texas | 63 |
| McAlester Fuel Company | 12-01-77 |
| Mobil Oil Corporation | 82 |
| Monsanto Company | 2 |
| Owl Petroleum Company | 10-27-70 |
| Tenneco Oil Company | 72 |

**Appendix B**

| Producer | Rate schedule No. or contract date |
|---|---|
| Louisiana Land Offshore Exploration Co. | 9-20-79 |
| Texas Eastern Exploration Co. | 8-6-79 |
| Sun Oil Co. | 617/10-3-79 |
| Union Texas Petroleum | 20/7-31-79 |
| Davis Oil Co. | 7-29-79 |
| Hanson Production Co. | SPC |
| McCormick 1971 Oil and Gas Program | 5-16-79 |
| Paramount Petroleum | 7-6-79 |
| Union Oil Co. of Ca. | 139/8-13-79 |
| Union Texas Petroleum | 14/7-31-79 |
| Union Texas Petroleum | 16/7-31/79 |
| Continental Oil Co. | 461/9-7-79 |
| Exxon Corp. | 15/10-1-79 |
| General American Oil Co. | 18/8-14-79 |
| Gulf Oil Corp. | 108/10-4-79 |
| Mobil Oil Corp. | 418/6-29-79 |
| Atlantic Richfield Co. | 365/9-11-79 |

[FR Doc. 80-1421 Filed 1-18-80; 8:45 am]
BILLING CODE 6450-01-M

[Docket No. GP80-21]

## Texas Eastern Transmission Corp.; Notice of Third-Party Protests [1]

Issued January 10, 1980.

Take notice that in accordance with the procedures established by the Federal Energy Regulatory Commission (Commission) in Order No. 23-B [2], and "Order on Rehearing of Order No. 23-B," [3] the staff of the Commission protested on October 15, 1979, the assertion by the Texas Eastern Transmission Corporation (Texas Eastern) and certain producers that the contracts identified in its protest constitute contractual authority for the producers to charge and collect any applicable maximum lawful price under the Natural Gas Policy Act of 1978 (NGPA).

Staff stated that the language of the contracts contained in Appendix A of this notice does not constitute authority for the producer to increase prices to the extent claimed by Texas Eastern in its evidentiary submission.

Take further notice that the Public Service Commission of the State of New York (New York) also filed a third-party protest on October 15, 1979. New York protests that the contracts in Appendix B do not constitute contractual authority for the producer to increase prices to the applicable NGPA maximum lawful price. New York's position has been adopted and incorporated in protests filed by Associated Gas Distributors (AGD), the Arizona Corporation Commission, the Florida Cities, the Gas Consumers Group, the Kansas State Corporation Commission, Congressman Andrew Maguire, joint protests by Connecticut Public Utilities Control Authority, Maine Public Utilities Commission, Massachusetts Department of Public Utilities, New Hampshire Public Utilities Commission, Rhode Island Division of Public Utilities and Carriers, and Dennis J. Roberts II, the Cities of Mangum, Oklahoma and Winfield, Kansas, the Memphis Light, Gas and Water Division, the South Dakota Public Service Commission and the Minnesota Public Service Commission.

Take further notice that on October 15, 1979, Associated Gas Distributors (AGD) filed separate protests with respect to producer assertions of contractual authority to collect NGPA ceiling prices. The contracts separately protested by AGD are listed in Appendix C. AGD's position has been adopted and incorporated in protests by Memphis Light, Gas and Water Division; Connecticut Public Utilities Control Authority, Maine Public Utilities Commission, Massachusetts Department of Public Utilities, New Hampshire Public Utilities Commission, Rhode Island Division of Public Utilities and Carriers, and Dennis J. Roberts, II.

Any person, other than the pipeline and the seller, desiring to be heard or to make any response with respect to these protests should file with the Commission, on or before January 24, 1980, a petition to intervene in accordance with 18 CFR 1.8. The seller need not file for intervention because under 18 CFR § 154.94(j)(4)(ii), the seller

[1] The term "third-party protest" refers to a protest filed by a party who is not a party to the contract which is protested.

[2] "Order Adopting Final Regulations and Establishing Protest Procedure," Docket No. RM79-22, issued June 21, 1979.

[3] Docket No. RM79-22, issued August 6, 1979.

[1] The term "third party protest" refers to a protest filed by a party who is not a party to the contract which is protested.

[2] "Order Adopting Final Regulations and Establishing Protest Procedure," Docket No. RM79-22, issued June 21, 1979.

[3] Docket No. RM79-22, issued August 6, 1979.

in the first sale is automatically joined as a party.

Kenneth F. Plumb,
*Secretary.*

### Appendix A

| Producer | Rate schedule No. or contract date |
|---|---|
| Hassie Hunt Exploration Co. | 37/1-8-69 |
| Sun Oil Co. | 35/9-1-73 |
| Texaco Inc. | 273 |
| Atlantic Richfield Co. | 160 |
| Barth Energy Corp. | 6-7-77 |
| Belco Petro. Corp. | 8-9-74 |
| Mills Bennett Estate | 7-5-77 |
| C & K Petro. Inc. | 8-15-74 |
| CEJA Corp. | 4-7-75 |
| Continental Oil Co. | 435 |
| Enserch Explor., Inc. | 87 |
| Enserch Explor., Inc. | 90 |
| Exxon Corp. | 490 |
| Highland Resources, Inc. | 6 |
| HNG Oil Co. | 17 |
| Jones-O'Brien, Inc. | 10-27-75 |
| La. Land & Explor. Co. | 6 |
| Marathon Oil Co. | 143 |
| A. Nelson McCarter | 7-1-77 |
| Mobil Oil Corp. | 543 |
| Paramount Petroleum Corp. | 1-5-77 |
| Pennzoil Producing Co. | 251 |
| Placid Oil Co. | 26 |
| Lamar Hunt | 9 |
| Lamar Hunt Trust Estate | 8 |
| Nelson Bunker Hunt Trust Estate | 7 |
| William Herbert Hunt Trust Estate | 10 |
| Sun Gas Co. | 424 |
| Sun Oil Co. | 28 |
| Texas Eastern Explor. Co. | 13, 16, 18 |
| Texas Oil & Gas Corp. | 93 |
| Union Oil Co. of California | 235 |
| Atlantic Richfield Co. | 606 |
| J.M. Huber Corp. | 77 |
| Kerr-McGee Corp. | 93 |
| Amoco Prod. Co. | 8 |
| Amoco Prod. Co./Cities Service Co. | 283/375 |
| Atlantic Richfield Co. | 268 |
| George L. Blohm | 5-28-62 |
| Chevron USA, Inc. | 42 |
| Cities Service Co. | 377 |
| Claiborne Gas Co. | 8-14-59 |
| Getty Oil Co. | 191 |
| LA Coastal Petro. Corp. | 6-12-69 |
| Tri-State Gas Group | 6-6-63 |
| Union Oil of California | 201/10-7-68 |

## Appendix B

### Type A—Pricing Clause

| Name of seller | R.S. No. or contract date | Date of contract |
|---|---|---|
| Amoco Production Co | 283 | 8/14/59 |
| Amoco Production Co | 203 | 2/12/57 |
| Atlantic Richfield Co | 268 | 7/25/62 |
| George Blohn | | 5/28/62 |
| Cities Service Co | 375 | 8/14/59 |
| Cities Service Co | 377 | 11/08/60 |
| Claiborne Gasoline Co | 8/14/59 | 8/14/59 |
| Crystal Oil Co. and Hassie Hunt Exploration Co. | 39 | [1]10/01/78 |
| Damson Petroleum Corp | 5/25/64 | [2]4/03/67 |
| Exxon Corp | 10, 258 | 2/20/64 |
| Exxon Corp | 391 | [3]10/01/62 |
| Getty Oil Co | 191 | 10/26/62 |
| Getty Oil Co | 241 | 6/01/68 |
| La Coastal Petroleum Corp | 6/12/69 | 6/12/69 |
| Sun Oil Co | 88 | 7/01/63 |
| Tenneco Oil Co | 112 | 6/14/64 |
| Tri-State Gas Group | 6/06/963 | 6/01/72 |
| Wilcox Trend Contract No. 21. | 2/05/54 | 2/05/54 |
| Continental Oil Co | 114 | 3/25/52 |
| Energy Reserves Group, Inc | 78 | 2/16/62 |
| Gulf Oil Corp | 278 | 1/06/64 |

### Type A—Pricing Clause—Continued

| Name of seller | R.S. No. or contract date | Date of contract |
|---|---|---|
| H. L. Hawkins and H. L. Hawkins, Jr. | 11/10/65 | 11/10/65 |

[1] Amend B.
[2] Amend.
[3] Amend.

### Type B—Pricing Clause

| Producer name | R.S. No. or contract date | Date of type B | Date of earlier clause |
|---|---|---|---|
| American Petrofina | 7 | 10/01/77 | 11/28/55 |
| American Petrofina | 33 | 10/01/77 | 12/01/55 |
| Coastal States | 39 | 10/01/77 | 12/01/55 |
| American Petrofina | 40 | 4/05/77 | 2/05/63 |
| American Petrofina | 44 | 12/01/77 | 2/18/58 |
| Getty Oil | 7 | 6/20/79 | 8/01/73 |
| Wm. Herbert Hunt | 2 | 12/01/78 | 11/01/78 |
| IBHK Operators | 4/04/74 | 11/01/77 | 4/01/74 |
| MF McCain | 6/01/79 | 6/01/79 | 4/01/58 |
| | | | 8/01/64 |
| | | | 12/23/75 |
| Mitchell Energy Corp | 9 | 5/24/79 | 11/01/73 |
| Mitchell Energy Corp | 10 | 4/28/79 | 11/14/73 |
| Mitchell Energy Corp | 35 | 5/16/79 | 10/01/78 |

### Type C—*Pricing Clause*

| Name of Seller | R. S. No. or contract date | Date of contract |
|---|---|---|
| Amerada Hess | 163 | 1/28/74 |
| Amerada Hess | 165 | 9/01/76 |
| American Petrofina Co. of Texas. | 40 | 2/05/63 |
| American Petrofina Co. of Texas. | 63 | 8/05/75 |
| American Petrofina Co. of Texas. | 88 | 6/01/76 |
| Aminoil USA Inc | 33 | 1/28/74 |
| Aminoil USA Inc | 43 | 1/25/77 |
| Amoco Production Co | 58 | 1/01/75 |
| Amoco Production Co | 87 | 1/01/75 |
| Amoco Production Co | 150 | 6/01/75 |
| Atlantic Richfield | 141 | 11/01/72 |
| Atlantic Richfield | 142 | 11/01/72 |
| Atlantic Richfield | 459 | 7/01/61 |
| Atlantic Richfield | 554 | 3/20/78 |
| Atlantic Richfield | 669 | 10/20/72 |
| Atlantic Richfield | 160 | 9/10/76 |
| Atlantic Richfield | 244 | 12/01/73 |
| Atlantic Richfield | 359 | 10/01/73 |
| Atlantic Richfield | 360 | 10/01/73 |
| Atlantic Richfield | 365 | 12/01/73 |
| Atlantic Richfield | 507 | 1/05/77 |
| Barth Energy Corp | | 6/07/77 |
| Belco Petroleum Corp | | 8/09/74 |
| Benedvon-Trees | | 3/20/78 |
| Mills Bennett | | 1/01/77 |
| Mills Bennett | | 1/05/77 |
| Mills Bennett | | 3/04/77 |
| Mills Bennett | | 7/05/77 |
| Robert M. Beren | | 8/27/74 |
| Big "6" Drilling | | 6/14/71 |
| Bock & Bacon | 11/1/72 | 10/01/73 |
| Bradco Oil & Gas | | 5/01/75 |
| Brammer | | 2/01/62 |
| Brammer Engineering | | 11/01/76 |
| George R. Brown | 55 | 11/18/69 |
| Glen D. Bute | | 12/16/69 |
| Terra Resources | 37 | 12/16/69 |
| Burk Royalty Co | | 2/04/59 |
| J. D. Burke | | 10/22/56 |
| J. D. Burke | | 12/01/74 |
| C & K Petroleum | | 8/15/74 |
| Cabot Corp | 110 | 9/01/75 |
| Morris Cannan | | 8/01/71 |
| Morris Cannan | | 12/28/74 |
| Morris Cannan | | 12/26/74 |
| F. William Carr | | 9/10/73 |
| Carter-Jones Drilling | | 7/18/75 |
| Kerr-McGee | 157 | 7/18/75 |
| Case-Pomeroy Oil | 6 | 9/01/75 |
| Ceja Corp | | 4/07/75 |
| Champlin Petroleum | 2 | 6/15/53 |
| Champlin Petroleum | 27 | 9/14/56 |
| Chevron U.S.A | 29 | 5/01/62 |
| Chevron U.S.A | 38 | 11/01/65 |

### Type C—*Pricing Clause*—Continued

| Name of Seller | R. S. No. or contract date | Date of contract |
|---|---|---|
| Chevron U.S.A | 42 | 6/8/67 |
| Chevron U.S.A | 47 | 2/15/69 |
| Chevron U.S.A | 54 | 7/01/72 |
| Cities Service | 2 | 4/27/53 |
| Cities Service | 220 | 9/01/67 |
| Cities Service | 314 | 6/16/69 |
| Cities Service | 330 | 8/27/70 |
| Cities Service | 346 | 6/21/71 |
| Cities Service | 355 | 4/27/53 |
| Cities Service | 366 | 8/01/75 |
| Cities Service | 368 | 3/01/76 |
| Cities Service | 370 | 6/03/77 |
| Continental Oil Co | 84 | 1/05/77 |
| Continental Oil Co | 139 | 1/01/77 |
| Atlantic Richfield Co | 161 | 1/01/77 |
| Sun Oil Co | 74 | 1/01/77 |
| Continental Oil Co | 248 | 3/01/75 |
| Continental Oil Co | 435 | 3/02/77 |
| Edwin L. Cox | 4/15/48 | 8/01/72 |
| Edwin L. Cox | 6/01/60 | 2/05/76 |
| Edwin L. Cox | 3/11/68 | 2/10/76 |
| Cremer Oil Co | 10/29/73 | 10/29/73 |
| Daniel Oil Co | 8/01/76 | 8/01/76 |
| Davis Oil Co | 11/29/76 | 11/29/76 |
| Davis Oil Co | 7/25/74 | 7/25/74 |
| Ladd Petroleum Corp | 72 | 7/25/74 |
| Devon Corp | 42 | 7/23/74 |
| Louis Dorfman | 12/20/60 | 9/24/74 |
| Energy Reserves Group, Inc | 48 | 3/01/74 |
| Energy Reserves Group, Inc | 78 | 10/27/74 |
| Enserch Exploration, Inc | 84 | 10/27/74 |
| Enserch Exploration, Inc | 87 | 10/27/74 |
| Enserch Exploration, Inc | 90 | 5/01/69 |
| Amoco Production Co | 541 | 5/01/69 |
| Exxon Corp | 12 | [1]10/01/53 |
| Exxon Corp | 15 | 1/01/73 |
| Exxon Corp | 19 | 5/01/68 |
| Sun Oil Co | 23 | 5/01/68 |
| Exxon Corp | 401 | 1/12/72 |
| Exxon Corp | 433 | 5/01/76 |
| Exxon Corp | 430 | 4/26/71 |
| Exxon Corp | 505 | 2/17/72 |
| Texo No. 1890 (Exxon) | 5/01/76 | 5/01/76 |
| Fairmont Oil Corp | 23 | 9/01/75 |
| Finley Co | 7/20/77 | 7/20/77 |
| Forced Gas Co | 12/01/74 | 12/01/74 |
| Forest Oil Corp | 11 | 8/01/72 |
| Fortune Gas and Oil, Inc | 8/03/76 | 3/03/76 |
| General American Oil Co. of Texas. | 18 | 7/01/74 |
| General Crude Oil Co | 9/06/74 | 9/06/74 |
| Getty Oil Co | 55 | 11/20/75 |
| Getty Oil Co | 111 | 10/26/75 |
| A. G. Hill | 4 | 1/24/61 |
| Getty Oil Co | 269 | 8/01/75 |
| Getty Oil Co | 272 | 10/01/75 |
| Getty Oil Co | 284 | 4/01/75 |
| Getty Oil Co | 362 | 9/01/67 |
| Getty Oil Co | 372 | 6/15/69 |
| Getty Oil Co | 374 | 5/28/70 |
| Getty Oil Co | 378 | 6/01/71 |
| Hugh Goodrich | 6/01/74 | 6/01/74 |
| Gulf Oil Corp | 108 | 12/05/73 |
| Gulf Oil Corp | 425 | 5/13/71 |
| Gulf Oil Corp | 537 | 9/08/77 |
| HNG Oil Co | 4 | 6/24/74 |
| HNG Oil Co | 17 | 8/06/76 |
| Louis H. Haring, Jr | 11/26/74 | 11/26/74 |
| H. L. Hawkins and H. L. Hawkins, Jr. | 11/10/65 | 11/15/74 |
| Herman F. Heep Trust | 6/03/77 | 6/03/77 |
| Tenneco Oil Co | 11 | 6/03/77 |
| Transocean Oil, Inc | 8 | 6/03/77 |
| Highland Resources, Inc | 6 | 2/05/76 |
| Houston Petroleum Co | 10/07/77 | 10/07/77 |
| J. M. Huber Corp | 77 | 12/01/74 |
| Atlantic Richfield Co | 606 | 12/01/74 |
| Hassie Hunt, Inc | 4 | 9/20/77 |
| Hassie Hunt Exploration Co | 37 | 1/03/69 |
| Hunt Oil Co | 32 | 1/24/77 |
| Hunt Oil Co | 23 | 2/26/76 |
| Atlantic Richfield | 544 | 2/26/76 |
| Marathon Oil Co | 69 | 2/26/76 |
| Sun Oil Co | 328 | 2/26/76 |
| Hurley Oil and Gas Co | 4/15/43 | 8/01/72 |
| Hurley Oil and Gas Co | 4/15/75 | 4/15/74 |
| C. A. Hurst | 11/18/60 | 1/31/77 |
| Kerr-McGee Corp | 97 | 8/03/76 |
| Devon Corp | 25 | 3/03/76 |
| Industrial Electronic Engineering Corp. | 12/10/56 | 1/15/75 |
| Inexo Oil co | 10/01/74 | 10/01/74 |

**Type C—*Pricing Clause*—Continued**

| Name of Seller | R. S. No. or contract date | Date of contract |
|---|---|---|
| Inexo Oil Co | 8/01/76 | 8/01/76 |
| Joanaco Projects of Texas | 7/15/75 | 7/15/75 |
| Jones-O'Brien, Inc | 10/27/75 | 10/27/75 |
| Amoco Production Co | 720 | 10/27/75 |
| Exxon Corp | 201 | 10/27/75 |
| Placid Oil Co | 36 | 10/27/75 |
| Tenneco Oil Co | 101, 113 | 10/27/75 |
| Edwin M. Jones Oil Co | 11/20/75 | 11/20/75 |
| Kerr-McGee Corp | 133 | 9/01/75 |
| Kerr-McGee Corp | 93 | 5/01/76 |
| S. H. Killingsworth | 6/01/73 | 6/01/73 |
| Kilroy Properties Inc | 8/29/75 | 8/29/75 |
| La Coastal Petroleum Corp | 3/20/70 | 3/20/70 |
| Largo Drilling Company, Inc | 8/20/75 | 8/20/75 |
| The Louisiana Land and Exploration Co. | 6 | 7/30/70 |
| The Louisiana Land and Exploration Co. | 16 | 1/28/74 |
| The Louisiana Land and Exploration Co. | 20 | 4/12/77 |
| Louisiana Land Offshore Exploration Co., Inc. | 2 | 4/18/75 |
| Louisiana Land Offshore Exploration Co., Inc. | 3 | 8/02/77 |
| Louisiana Land Offshore Exploration Co., Inc. | 4 | 7/18/77 |
| Lyons Petroleum, Inc | 3/01/63 | 2/09/73 |
| M-K Oil and Gas, Inc | 8/01/73 | 8/01/73 |
| MPS Production Co | 11/11/66 | 4/01/75 |
| M & V Oil, Inc | 11/30/75 | 11/30/76 |
| Maguire Oil Co | 6/01/76 | 6/01/76 |
| Marathon Oil Co | 128 | 1/28/74 |
| Marathon Oil Co | 132 | 4/21/75 |
| Marathon Oil Co | 139 | 9/01/76 |
| Marathon Oil Co | 143 | 6/21/77 |
| M. H. Marr | 4/15/48 | 11/01/74 |
| McAlester Fuel Co | 12/01/77 | 12/01/77 |
| A. Nelson McCarter | 7/01/77 | 7/01/77 |
| McCormick Properties, Inc | 6/21/74 | 6/21/74 |
| Mesa Petroleum Co | 76 | 3/01/76 |
| Mobil Oil Corp | 43 | 5/01/79 |
| Mobil Oil Corp | 72 | 12/12/78 |
| Mobil Oil Corp | 82 | 5/13/75 |
| Mobil Oil Corp | 387 | 9/19/78 |
| Mobil Oil Corp | 407 | 9/19/78 |
| Mobil Oil Corp | 414 | 9/01/73 |
| Mobil Oil Exploration & Producing SE. | 418 | 5/13/78 |
| Mobil Oil Corp | 420 | 10/09/78 |
| Mobil Oil Corp | 441 | 5/13/75 |
| Mobil Oil Corp | 454 | 9/18/78 |
| Mobil Oil Corp | 456 | 9/19/78 |
| Mobil Oil Corp | 467 | 9/19/78 |
| Mobil Oil Corp | 476 | 9/19/78 |
| Mobil Oil Corp | 486 | 2/18/72 |
| Mobil Oil Corp | 526 | 2/25/75 |
| Mobil Oil Corp | 527 | 2/25/75 |
| Mobil Oil Corp | 528 | 2/25/75 |
| Mobil Oil Corp | 556 | 8/21/78 |
| Mobil Oil Corp | 543 | 5/17/77 |
| Monroe Producers, Inc | 1/08/76 | 1/08/76 |
| Monsanto Co | 2 | 9/01/73 |
| Monsanto Co | 135 | 7/01/77 |
| Monsanto Co | 1 | 9/01/73 |
| Robert Mosbacher | 11/01/72<br>10/01/73 | 5/20/76 |
| Robert Mosbacher | 10/05/73 | 10/05/73 |
| Murphy Oil Corp | 1 | 11/01/74 |
| Murphy Oil Corp | 13 | 1/25/74 |
| Murphy Oil Corp | 14 | 12/03/76 |
| George A. Musselman, et al | 7/15/75 | 7/15/75 |
| Occidental Petroleum Corp | 11/20/64 | 8/13/73 |
| Paramount Petroleum Corp | 108 | 1/05/77 |
| Paramount Petroleum Corp | 12/05/73 | 12/05/73 |
| Patrick Petroleum Corp | 2/25/66 | 11/01/73 |
| Patrick Petroleum Corp | 8/01/77 | 8/01/77 |
| Petro-Lewis Funds, Inc | 2/25/66 | 5/01/75 |
| Ashland Oil, Inc | 246 | 5/01/75 |
| Energy Reserves Corp., Inc. | 148 | 5/01/75 |
| Pennzoil Producing Co | 202 | 7/26/74 |
| Pennzoil Producing Co | 251 | 7/01/73 |
| Pennzoil Producing Co | 300 | 8/15/74 |
| Petrofunds, Inc | 2/22/72 | 2/22/72 |
| Petroleum Corp. of Texas | 4/27/53 | 5/01/68 |
| Petroleum Production Engineers. | 7/28/61 | 5/16/77 |
| A. O. Phillips | 6/10/75 | 1/14/77 |
| Phillips Petroleum Co | 281 | 11/20/75 |
| Phillips Petroleum Co | 370 | 5/01/76 |
| Placid Oil Co | 26 | 10/14/74 |
| Lamar Hunt | 9 | 10/14/74 |

**Type C—*Pricing Clause*—Continued**

| Name of Seller | R. S. No. or contract date | Date of contract |
|---|---|---|
| Lamar Hunt Trust Estate | 8 | 10/14/74 |
| Nelson Bunker Hunt Trust Estate. | 7 | 10/14/74 |
| William Herbert Hunt Trust Estate. | 10 | 10/14/74 |
| W. L. Puls | 5/19/48 | 1/05/74 |
| Reserve Oil and Gas Co | 1/01/74 | 1/01/74 |
| Reserve Oil and Gas Co | 7/15/75 | 7/15/75 |
| Monsanto Co | 122 | 7/15/75 |
| Reserve Oil, Inc | 11/18/75 | 11/18/75 |
| J. I. Roberts | 4/15/48 | 8/01/72 |
| Sabine Production Co | 4/22/63 | 2/01/75 |
| Sanchez-O'Brien Petroleum Corp. | 9/01/77 | 9/01/77 |
| Sante Fe Energy Co | 11/05/71 | 11/05/71 |
| Shell Oil Co | 10 | 10/27/70 |
| Owl Petroleum Co | 10/27/70 | 10/27/70 |
| Shell Oil Co | 257 | 12/13/73 |
| Shell Oil Co | 379 | 5/12/76 |
| Shell Oil Co | 400 | 1/01/77 |
| Shell Oil Co | 369 | 8/27/68 |
| Sohio Petroleum Co | 11 | 2/01/76 |
| Sohio Petroleum Co | 28 | 9/01/75 |
| Southland Drilling Co., Inc | 11/01/72<br>10/01/73 | 11/01/72 |
| J. G. Stone | 1/15/75 | 1/15/75 |
| Stream, Inc | 10/01/75 | 10/01/75 |
| H. A. Stuart | 12/18/61 | 4/25/75 |
| Sun Gas Co | 206 | 6/03/77 |
| Sun Gas Co | 282 | 11/20/73 |
| Sun Gas Co | 330 | 10/28/76 |
| Sun Gas Co | 405 | 6/01/76 |
| Sun Gas Co | 424 | 12/15/72 |
| Sun Oil Co | 35 | 9/01/73 |
| Texaco | 273 | 9/01/73 |
| Sun Oil Co | 162 | 6/01/76 |
| Sun Oil Co | 24 | 11/01/73 |
| Sun Oil Co | 28 | 11/01/76 |
| Sun Oil Co | 161 | 1/29/73 |
| Sun Oil Co | 474 | 10/08/73 |
| Superior Oil Co | 167 | 12/10/73 |
| Tenneco Oil Co | 72 | 11/01/74 |
| Terra Resources | 37 | 9/01/74 |
| Texaco, Inc | 97 | 12/05/73 |
| Texaco, Inc | 160 | 11/01/74 |
| Texaco, Inc | 458 | 4/01/71 |
| Texaco, Inc | 272 | 11/13/75 |
| Texaco, Inc | 416 | 1/04/68 |
| Texaco, Inc | 479 | 6/22/72 |
| Texas Eastern Exploration Co | 10 | 8/27/74 |
| Texas Eastern Exploration Co | 12 | 4/22/75 |
| Texas Eastern Exploration Co | 13 | 5/31/77 |
| Texas Eastern Exploration Co | 15 | 6/15/77 |
| Texas Eastern Exploration Co | 16 | 8/08/77 |
| Texas Eastern Exploration Co | 17 | 7/13/77 |
| Texas Eastern Exploration Co | 18 | 7/12/77 |
| Texas Eastern Exploration Co | 6 | 8/24/73 |
| Texas Eastern Exploration Co | 7 | 8/24/73 |
| Texas Eastern Exploration Co | 8 | 8/24/73 |
| Texas Eastern Exploration Co | 9 | 8/24/73 |
| Texasgulf, Inc | 2/13/76 | 2/13/76 |
| Texas Oil and Gas Corp | 56 | 9/08/69 |
| Texas Oil and Gas Corp | 93 | 8/05/71 |
| Triton Oil and Gas Corp | 4/27/53 | 5/01/68 |
| Union Oil Co. of California | 190 | 10/07/68 |
| Union Oil Co. of California | 201 | 4/01/75 |
| Union Oil Co. of California | 235 | 5/09/77 |
| Union Oil Co. of California | 242 | 5/09/77 |
| Union Oil Co. of California | 139 | 7/01/74 |
| Union Oil Co. of California | 179 | 8/24/67 |
| Union Oil Co. of California | 218 | 1/06/75 |
| Union Oil Co. of California | 219 | 1/06/75 |
| Union Oil Co. of California | 220 | 1/06/75 |
| Union Oil Co. of California | 221 | 1/06/75 |
| Union Texas Petroleum | 14 | 1/01/74 |
| Union Texas Petroleum | 16 | 1/01/74 |
| Union Texas Petroleum | 20 | 1/01/74 |
| Vaughey and Vaughey | 4/15/48 | 7/01/73 |
| Warren Petroleum Co | 18-A, 18-B | 1/14/72 |

[1] Amendment.

## Appendix C

### Texas Eastern Transmission Corporation

| Seller | Rate schedule No. | Contract date |
|---|---|---|
| American Petrofina Co. of Texas | 63 | 6/15/75 |
| American Petrofina Co. of Texas | 68 | 6/1/76 |
| Amoco Prod. Co | 67 | 6/1/76 |
| Mills Bennett Estate | | 1/1/77 |
| Mills Bennett Estate | | 1/5/77 |
| Mills Bennett Estate | | 3/4/77 |
| Carter-Jones Drilling Co., Inc | | 7/18/75 |
| Kerr-McGee Corp | 157 | |
| Chevron USA Inc | 58 | 6/3/77 |
| Cities Service Co | 368 | 6/1/75 |
| Cities Service Co | 368 | 3/1/76 |
| Dixel Resources, Inc | | 7/19/76 |
| Getty Oil Co | 55 | 11/20/75 |
| Getty Oil Co | 269 | 6/1/75 |
| Getty Oil Co | 272 | 10/1/75 |
| Gulf Oil Corp | 537 | 9/9/77 |
| Joanaco Projects of Texas | SPC | 7/15/75 |
| Edwin M. Jones Oil Co | SPC | 11/20/75 |
| Larco Drilling Co., Inc | SPC | 8/20/75 |
| M&V Oil, Inc | SPC | 11/30/76 |
| Maguire Oil Co | SPC | 6/1/76 |
| Monroe Producers, Inc | SPC | 1/8/76 |
| Murphy Oil Corp | 14 | 1/13/76 |
| George A. Musselman | SPC | 7/15/75 |
| Patrick Petroleum Corp | SPC | 8/1/77 |
| Phillips Petroleum Co | 281 | 11/20/75 |
| Reserve Oil & Gas Co | SPC | 7/15/75 |
| Reserve Oil Inc | SPC | 11/18/75 |
| Stream Inc | SPC | 10/1/75 |
| Sun Oil Co | 24 | 1/1/76 |
| Monsanto Co | 122 | |
| Aminoil USA | 46 | 9/16/76 |
| Case-Pomeroy Oil Corp | 11 | 3/20/79 |
| Felmont Oil Corp | 33 | 3/16/79 |
| Louisiana Land & Explor. Co | | 5/30/79 |
| Marathon Oil Co | | 6/30/76 |
| Marathon Oil Co | | 1/17/79 |
| Aminoil USA | 47 | 9/12/76 |
| Louisiana Land & Explor. Co | 28 | 6/28/76 |
| Louisiana Land & Explor. Co | 3 | 6/2/77 |
| Louisiana Land & Explor. Co | 4 | 7/18/77 |
| Marathon Oil Co | 128 | 1/28/74 |
| Marathon Oil Co | 139 | 9/1/76 |
| Robert Mosbacher | SPC | 11/1/72, 10/1/73 |
| Southland Drilling Co. Inc | SPC | 11/1/72, 10/1/73 |
| Sun Gas Co | 162 | 6/1/76 |
| Sun Gas Co | 405 | 6/1/76 |
| Texas Eastern Explor. Co | 12 | 4/22/75 |
| Texas Eastern Explor. Co | 17 | 7/13/77 |
| Texas Eastern Explor. Co | 18 | 7/12/77 |
| American Petrofina Co. of Texas | 7 | 10/1/77 |
| American Petrofina Co. of Texas | 33 | 10/1/77 |
| Coastal States Gas Producing Co | 49 | |
| American Petrofina Co. of Texas | 44 | 12/1/77 |
| Enserch Explor. Inc | 128 | 11/27/77 |
| A.G. Hill | 8 | 9/16/77 |
| Hassie Hunt, Inc | 4 | 9/20/77 |
| Texaco Inc | 170 | 10/17/77 |
| Texaco Inc | 274 | 7/15/77 |
| Amerada Hess | 163 | 1/28/74 |
| Amerada Hess | 165 | 9/1/76 |
| American Petrofina | 40 | 2/5/63 |
| American Petrofina | 44 | 3/15/77 |
| Aminoil USA | 39 | 1/28/74 |
| Aminoil USA | 43 | 1/25/77 |
| Bock & Bacon | | 11/1/72 |
| Bock & Bacon | | 10/1/73 |
| Brammer Engr. Inc., et al | | 1/30/76 |
| George R. Brown | 22 | 2/19/76 |
| Cabot Corp | 116 | 9/1/75 |
| Case-Pomeroy Oil Corp | 6 | 10/1/75 |
| Edwin L. Cox | | 9/1/60 |
| Edwin L. Cox | | 2/10/76 |
| Felmont Oil Corp | 23 | 9/1/75 |
| HNG Oil Co | 17 | 8/6/76 |
| Kerr-McGee Corp | 133 | 9/1/75 |
| Louisiana Land & Explor. Co | 16 | 1/28/74 |
| Louisiana Land & Explor. Co | 20 | 4/12/77 |
| Louisiana Land & Explor. Co | 2 | 4/10/75 |
| Amoco Production Co | 8 | 8/17/71 |
| Amoco Production Co | 58 | 1/1/75 |
| Amoco Production Co | 97 | 1/1/75 |
| Atlantic Richfield Co | 244 | 12/1/76 |
| Atlantic Richfield Co | 365 | 12/1/73 |
| Belco Petroleum Corp.-Sml. Prod. Contract | | 8/9/74 |

## Texas Eastern Transmission Corporation—Continued

| Seller | Rate schedule No. | Contract date |
|---|---|---|
| Mills Bennett Estate | | 7/5/77 |
| Robert M. Beren | | 8/27/74 |
| Big "6" Drilling Co. | | 6/14/71 |
| Bradco Oil & Gas Co. | | 5/1/75 |
| Glen D. Buie | | 11/1/75 |
| Terra Resources | 37 | |
| Burk Royalty Co. | | 2/4/59 |
| J.D. Burke | | 10/22/56 |
| J.D. Burke | | 12/1/74 |
| C&K Petroleum, Inc. | | 8/15/74 |
| Morris Cannan | | 8/1/71 |
| Morris Cannan | | 12/26/74 |
| Morris Cannan | | 12/26/74 |
| F. William Carr | | 9/10/73 |
| Ceja Corp. | | 4/7/75 |
| Champlin Petroleum Co. | 2 | 3/1/72 |
| Champlin Petroleum Co. | 27 | 6/21/72 |
| Chevron USA, Inc. | 29 | 4/1/70 |
| Chevron USA, Inc. | 42 | 9/20/71 |
| Chevron USA, Inc. | 54 | 7/1/72 |
| Cities Service Co. | 220 | 9/1/67 |
| Cities Service Co. | 370 | 6/3/77 |
| Continental Oil Co. | 248 | 3/1/75 |
| Continental Oil Co. | 435 | 3/2/77 |
| Cremer Oil Co. | | 10/29/73 |
| Davis Oil Co. | | 7/25/74 |
| Ladd Petroleum Corp. | 72 | |
| Devon Corp. | | 7/23/74 |
| Energy Reserves Group | 48 | 3/1/74 |
| Energy Reserves Group | 78 | 8/9/73 |
| Enserch Explor., Inc. | 84 | 10/27/74 |
| Enserch Explor., Inc. | 87 | 10/27/74 |
| Enserch Explor., Inc. | 90 | 5/1/69 |
| Amoco Prod. Co. | 541 | |
| Exxon Corp. | 15 | 1/1/73 |
| Exxon Corp. | 401 | 1/13/72 |
| Finley Co. | | 7/20/77 |
| Forced Gas Co. | | 12/1/74 |
| Forest Oil Corp. | 11 | 8/1/72 |
| General American Oil Co of Texas | 18 | 7/1/74 |
| General Crude Oil Co | SPC | 9-6-74 |
| Getty Oil Co | 111 | |
| A. G. Hill | 4 | |
| Northern Pump Co | SPC | 1/24/61, 10/26/75 |
| Getty Oil Co | 284 | 4/1/75 |
| Getty Oil Co | 362 | 9/1/67 |
| Gulf Oil Corp. | 42 | 6/16/77 |
| Gulf Oil Corp. | 108 | 12/5/73 |
| Gulf Oil Corp. | 425 | 5/19/71 |
| Louis H. Haring, Jr. | SPC | 11/26/75 |
| H. L. Hawkins & H. L. Hawkins, Jr. | SPC | 11/10/65 |
| Highland Resources, Inc. | 6 | 2/5/76 |
| Alvin C. Hope | SPC | 9/20/73 |
| William Herbert Hunt Trust Estate | 2 | 11/1/73 |
| Hurley Oil & Gas Co | SPC | 4/15/75 |
| IBEX Inc | SPC | 1/15/74 |
| Industrial Electronic Engineering Corp | SPC | 12/10/56, 1/15/75 |
| INEXO Oil Co. | SPC | 10/1/74 |
| S. H. Killingsworth | SPC | 6/1/73 |
| Lyons Petroleum Inc. | SPC | 3/1/63 |
| M-K Oil & Gas Co | SPC | 8/1/73 |
| MPS Production Co | SPC | 11/11/66 |
| M. F. McCain | SPC | 4/1/58, 12/23/75 |
| McCormick Properties, Inc. | SPC | 6/21/74 |
| Mitchell Energy | 10 | 11/14/73 |
| Mitchell Energy | 35 | 10/1/76 |
| Monsanto Co | 1 | 9/1/73 |
| Murphy Oil Corp | 13 | 1/25/74 |
| Occidental Petroleum Corp. | SPC | 11/20/64, 8/13/73 |
| Paramount Petroleum Corp | SPC | 12/5/73 |
| W. L. Puls | SPC | 5/19/48, 1/5/74 |
| Reserve Oil & Gas Co. | SPC | 1/1/74 |
| Sabine Production Co. | SPC | 4/22/63, 2/1/75 |
| Santa Fe Energy Co | SPC | 11/5/71 |
| Shell Oil Co. | 369 | 8/27/68 |
| Energy Reserves Corp., Inc. | 148 | |
| Pennzoil Producing Co | 202 | 7/26/74 |
| Pennzoil Producing Co | 251 | 7/1/73 |
| Petrofunds Inc | SPC | 2/22/75 |
| Petroleum Production Engineers | SPC | 7/28/61, 5/16/77 |
| A. O. Phillips | SPC | 6/10/75 |
| Phillips Petroleum Co | 370 | 5/1/76 |
| J. G. Stone | SPC | 1/15/75 |

## Texas Eastern Transmission Corporation—Continued

| Seller | Rate schedule No. | Contract date |
|---|---|---|
| H. A. Stuart | SPC | 12/18/61, 4/25/75 |
| Sun Oil Co. | 24 | 11/1/73 |
| Sun Gas Co | 161 | 1/23/73 |
| Sun Gas Co | 206 | 6/3/77 |
| Sun Gas Co | 282 | 11/20/73 |
| Sun Gas Co | 474 | 10/8/73 |
| Terra Resources | 37 | 9/1/74 |
| Texaco | 416 | 1/4/68 |
| Texaco | 479 | 6/22/72 |
| Texas Eastern Exploration Co. | 6 | 8/24/73 |
| Texas Eastern Exploration Co. | 7 | 8/24/73 |
| Texas Eastern Exploration Co. | 8 | 8/24/73 |
| Texas Eastern Exploration Co. | 9 | 8/24/73 |
| Texas Eastern Exploration Co. | 10 | 8/24/73 |
| Texas Gulf Inc. | SPC | 2/13/76 |
| Texas Oil & Gas Corp. | 93 | 8/5/71 |
| Union Oil Co. of Calif. | 139 | 7/1/74 |
| Union Oil Co. of Calif. | 179 | 8/24/67 |
| Union Oil Co. of Calif. | 218 | 1/6/75 |
| Union Oil Co. of Calif. | 219 | 1/6/75 |
| Union Oil Co. of Calif. | 220 | 1/6/75 |
| Union Texas Petroleum | 14 | 1/1/74 |
| Union Texas Petroleum | 18 | 1/1/74 |
| Union Texas Petroleum | 20 | 1/1/74 |
| Amoco Production Co | 636 | 4/24/78 |
| Amoco Production Co | 172 | 4/24/78 |
| Amoco Prod. Co. | 763 | 1/17/78 |
| Amoco Prod. Co. | 764 | 1/17/78 |
| Amoco Prod. Co. | 765 | 1/17/78 |
| Amoco Prod. Co. | 766 | 1/17/78 |
| Cavalla Energy Exploration Co. | | 8/9/74 |
| Highland Resources, Inc. | 18 | 11/22/77 |
| Highland Resources, Inc. | 19 | 11/21/77 |
| John N. Loftin | SPC | 1/24/78 |
| Marathon Oil Co. | 158 | 7/18/78 |
| Sanchez-O'Brien Petroleum Corp. | SPC | 2/8/78 |
| Sun Gas Co | 91 | 10/17/77 |
| Sun Gas Co | 337 | 10/20/77 |
| Texas Eastern Exploration Co. | 19 | 5/10/78 |
| Union Texas Petroleum | 148 | 9/2/78 |
| Atlantic Richfield Co | 34 | 3/1/71 |
| Atlantic Richfield Co | 34 | 4/14/72 |
| Atlantic Richfield Co | 36 | 1/17/79 |
| Atlantic Richfield Co | 36 | 10/1/73 |
| Patrick Petroleum | SPC | 2/25/66, 11/1/73 |
| Atlantic Richfield Co | 141 | 11/1/72 |
| Atlantic Richfield Co | 142 | 11/1/72 |
| Atlantic Richfield Co | 459 | 10/20/72 |
| Atlantic Richfield Co | 160 | 9/10/76 |
| Colorado County Gas Gathering | 84 | 1/5/77 |
| Hunt Oil Co | 32 | 1/24/77 |
| A. Nelson McCarter | SPC | 7/1/77 |
| Paramount Petroleum Corp | SPC | 1/5/77 |
| Atlantic Richfield Co | 359 | 10/1/73 |
| Atlantic Richfield Co | 360 | 10/1/73 |
| Atlantic Richfield Co | 507 | 1/5/77 |
| Atlantic Richfield Co | 554 | 3/20/78 |
| Benedum-Trees Oil Co. Sml. Prod. Contract | | 3/23/78 |
| HNG Oil Co | 4 | 6/24/74 |
| Sun Gas Co | 583 | 5/8/78 |
| Barth Energy Corp.—Sml. Prod. Cont. | | 6/7/77 |
| Brammer Engineering, Inc. | 1 | 11/1/78 |
| George R. Brown | 3 | 10/20/78 |
| Morris Cannan | | 4/18/78 |
| Morris Cannan | | 6/1/78 |
| Morris Cannan | | 7/31/78 |
| Centrua, Inc. | | 7/12/78 |
| Cobra Oil & Gas Co. | | 10/3/78 |
| Davis Oil Co. | | 8/15/78 |
| Estate of Genevieve Tarlton Dougherty | | 5/26/79 |
| Crystal Oil Co. | | 10/1/78 |
| Hassie Hunt Exploration Co. | 33 | 10/1/78 |
| Esenjay Petroleum Corp. | | 8/23/78 |
| Expando Oil Co. | | 12/1/78 |
| Field Drilling Co. | | 3/1/78 |
| Roy R. Gardner | | 8/10/78 |
| Getty Oil Co. | 7 | 6/20/79 |
| Getty Oil Co. | 228 | 11/1/78 |
| H-M Oil Co. | SPC | 7/28/78 |
| Harkins & Co. | SPC | 6/7/78 |
| William Herbert Hunt Trust Estate | 2 | 12/1/78 |
| IBEX | SPC | 4/23/79 |
| Kamlok, Inc. | SPC | 7/5/79 |
| Lightning Production, Inc. | SPC | 12/23/77 |
| Louisiana Land and Explor. Co. | 29 | 8/9/78 |
| Marathon Oil Co. | 142 | 8/17/78 |

## Texas Eastern Transmission Corporation—Continued

| Seller | Rate schedule No. | Contract date |
|---|---|---|
| M. F. McCain | SPC | 6/1/79 |
| Mitchell Energy Corp. | 9 | 5/24/79 |
| Mitchell Energy Corp. | 10 | 4/28/79 |
| Mitchell Energy Corp. | 35 | 5/16/78 |
| Robert Mosbacher | SPC | 10/13/78 |
| Texas Oil & Gas Corp. | 107 | |
| Southeastern Pipeline Co. | SPC | 8/24/78 |
| Southland Minerals Co. | SPC | 8/18/78 |
| Sun Gas Co. | 277 | 10/14/78 |
| Texas Oil & Gas Corp. | 44 | 11/1/78 |
| Texas Oil & Gas Corp. | SPC | 5/8/78 |
| Texas Oil & Gas Corp. | SPC | 7/25/78 |
| Texas Oil & Gas Corp. | SPC | 8/14/78 |
| Vega Petroleum Corp. | SPC | 3/31/78 |
| Chevron USA, Inc. | 38 | 1/2/75 |
| Chevron USA, Inc. | 42 | 2/15/69 |
| Chevron USA, Inc. | 47 | 11/25/70 |
| Cities Service Co. | 314 | 6/16/69 |
| Cities Service Co. | 330 | 8/27/70 |
| Getty Oil Co. | 372 | 6/16/69 |
| Getty Oil Co. | 374 | 8/28/70 |
| La Coastal Petroleum Corp. | SPC | 3/20/70 |
| Atlantic Richfield Co. | 669 | 10/20/72 |
| Cities Service Co. | 2 | 5/1/68 |
| Cities Service Co. | 355 | 5/1/68 |
| Edwin L. Cox | | 4/15/48 |
| Exxon Corp. | 19 | 5/1/68 |
| Sun Oil Co. | 23 | |
| Hurley Oil & Gas Co. | SPC | 4/15/78, 8/1/72 |
| M. H. Marr | SR6/48, | 11/1/74 |
| Monsanto Co. | 2 | 9/1/73 |
| Murphy Oil Corp. | 1 | 11/1/74 |
| Petroleum Corp. of Texas | SPC | 2/27/53, 5/1/68 |
| J. I. Roberts | SPC | 4/15/48 |
| Sun Oil Co. | 35 | 9/1/73 |
| Tenneco Oil Co. | 72 | 11/1/74 |
| Triton Oil & Gas Corp. | SPC | 4/27/53 |
| Vaughey & Vaughey | SPC | 4/15/48, 7/1/73 |
| Sohio Petroleum Co. | 11 | 2/1/76 |
| Cities Service Co. | 346 | 6/21/71 |
| Exxon Corp. | 430 | 4/26/71 |
| Exxon Corp. | 505 | 2/17/72 |
| Getty Oil Corp. | 378 | 6/1/71 |
| Mobil Oil Corp. | 486 | 2/18/72 |
| Mobil Oil Corp. | 543 | 5/17/77 |
| Amoco Production Co. | | 9/4/74 |
| Cities Service Co. | 373 | 9/25/78 |
| Cities Service Co. | | 3/21/79 |
| Continental Oil Co. | 139 | 1/1/77 |
| Atlantic Richfield Co. | 161 | 1/1/77 |
| Sun Oil Co. | 74 | 1/1/77 |
| Damson Petroleum Corp. | | 7/3/73 |
| Daniel Oil Co. | | 8/1/76 |
| Davis Oil Co. | | 11/29/76 |
| Louis Dorfman | | 12/20/60 |
| Exxon Corp. | 12 | |
| Exxon Corp. | 19 | 5/1/76 |
| Exxon Corp. | 433 | 5/1/76 |
| Kerr-McGee Corp. | 93 | |
| Shell Oil Co. | 379 | 5/12/76 |
| J. M. Huber Corp. | 77 | 12/1/74 |
| Bert Fields, Jr. | | 1/24/77 |
| Fortune Gas & Oil, Inc. | | 8/3/76 |
| Hewitt B. Fox, Inc. | | 8/27/68 |
| Mobil Oil Corp. | 477 | |
| Union Oil Co. of Calif. | 190 | 10/7/68 |
| Union Oil Co. of Calif. | 201 | 10/7/68 |
| Getty Oil Co. | 51 | 9/1/75 |
| Sohio Petroleum Co. | 28 | 9/1/75 |
| Texaco, Inc. | 97 | 12/5/73 |
| Texaco, Inc. | 272 | 11/13/75 |
| Hugh Goodrich | SPC | 6/1/74 |
| Kilroy Properties, Inc. | SPC | 8/29/75 |
| Gulf Oil Corp. | 278 | 9/2/71 |
| Gulf Oil Corp. | 391 | 7/1/67 |
| Herman F. Heep Trust | SPC | 6/3/77 |
| TransOcean Oil, Inc. | 8 | |
| Tenneco Oil Co. | 11 | |
| Houston Petroleum Co. | SPC | 10/7/77 |
| Sanchez-O'Brien Petroleum Corp. | SPC | 9/1/77 |
| Hassie Hunt, Inc. | 37 | 1/8/69 |
| Hunt Oil Co. | 28 | 2/26/76 |
| Atlantic Richfield Co. | 544 | |
| Marathon Oil Co. | 69 | |
| Sun Oil Co. | 328 | |
| C. A. Hurst | SPC | 11/18/60, 1/31/77 |
| Texas Eastern Explor. Co. | 13 | 5/31/77 |
| Texas Eastern Explor. Co. | 15 | 6/15/77 |

Texas Eastern Transmission Corporation—Continued

| Seller | Rate schedule No. | Contract date |
|---|---|---|
| Texas Eastern Explor. Co. | 16 | 8/8/77 |
| Union Oil Co. of Calif. | 235 | 5/9/77 |
| Union Oil Co. of Calif. | 242 | 5/9/77 |
| Hytech Energy Corp. | SPC | 11/30/77 |
| IBHK Operators | SPC | 4/1/74, 11/1/77 |
| INEXO Oil Co. | SPC | 11/21/77 |
| INEXO Oil Co. | SPC | 11/22/77 |
| INEXO Oil Co. | SPC | 8/1/76 |
| Shell Oil Co. | 400 | 1/1/77 |
| Jones-O'Brien, Inc. | SPC | 10/27/75 |
| Amoco Prod. Co. | 720 | |
| Tenneco Oil Co. | 101, 113 | |
| Exxon Corp. | 201 | |
| Placid Oil Co. | 36 | |
| Sun Gas Co. | 320 | 10/28/76 |
| Kerr McGee Corp. | 97 | 8/3/76 |
| Devon Corp. | 25 | |
| Eason Oil Co. | 52 | |
| Louisiana Land & Explor. Co. | 6 | 7/3/70 |
| Marathon Oil Co. | 132 | 4/21/75 |
| Marathon Oil Co. | 143 | 6/21/71 |
| McAlester Fuel Co. | SPC | 12/1/77 |
| Mesa Petroleum Co. | 76 | 3/1/76 |
| Mitchell Energy Corp. | 9 | 11/1/73 |
| Mobil Oil Corp. | 43 | 5/1/79 |
| Mobil Oil Corp. | 72 | 12/12/78 |
| Mobil Oil Corp. | 387 | 9/19/78 |
| Mobil Oil Corp. | 407 | 9/19/78 |
| Mobil Oil Corp. | 420 | 10/9/78 |
| Mobil Oil Corp. | 454 | 9/19/78 |
| Mobil Oil Corp. | 456 | 9/19/78 |
| Mobil Oil Corp. | 467 | 9/19/78 |
| Mobil Oil Corp. | 476 | 9/19/78 |
| Mobil Oil Corp. | 556 | 8/31/78 |
| Mobil Oil Corp. | 43 | 8/22/73 |
| Mobil Oil Corp. | 72 | 5/13/75 |
| Mobil Oil Corp. | 82 | 5/13/75 |
| Mobil Oil Explor. & Producing S.E., Inc. | 418 | 5/13/75 |
| Mobil Oil Corp. | 441 | 5/13/75 |
| Mobil Oil Corp. | 414 | 9/1/73 |
| Mobil Oil Corp. | 526 | 2/25/75 |
| Mobil Oil Corp. | 527 | 2/15/75 |
| Mobil Oil Corp. | 528 | 2/25/75 |
| Monsanto Co. | 135 | 7/1/77 |
| Robert Mochbacher | SPC | 10/5/73 |
| Placid Oil | 26 | 10/14/74 |
| Lamar Hunt Trust Estate | 8 | 10/14/74 |
| Lillian Herbert Hunt Trust Estate | 10 | 10/14/74 |
| Lamar Hunt | 9 | 10/14/74 |
| Nelson Bunker Hunt Trust Estate | 7 | 10/14/74 |
| Owl Petroleum | SPC | 10/27/70 |
| Shell Oil Co. | 10 | |
| Shell Oil Co. | 257 | 12/13/73 |
| Sun Gas Co. | 424 | 12/15/72 |
| Sun Gas Co. | 614 | 8/14/78 |
| Superior Oil Co. | 167 | 12/10/73 |
| Texaco, Inc. | 97 | 11/1/74 |
| Texaco, Inc. | 458 | 4/1/71 |
| Texas Eastern Exploration Co. | | 1/31/79 |
| Texas Oil & Gas Corp. | 56 | 9/8/69 |
| Union Oil Co. of Calif. | 247 | 8/14/79 |
| La Coastal Petroleum Corp. | SPC | 6/12/79 |
| American Petrofina | 40 | 2/5/63 |
| Amoco Production Co. | 203 | 4/12/57 |
| Amoco Production Co. | | 4/28/67 |
| Amoco Production Co. | 283 | 8/14/59 |
| Cities Service Co. | 375 | |
| Atlantic Richfield Co. | 34 | 3/25/52 |
| Atlantic Richfield Co. | 34 | 3/1/62 |
| Atlantic Richfield Co. | 268 | 7/25/62 |
| Atlantic Richfield Co. | 459 | 6/1/71 |
| George L. Blohm | | 5/28/62 |
| Brammer Engr. Inc., *et al.* | | 2/1/62 |
| Champlin Petroleum Co. | 27 | 9/14/56 |
| Chevron USA, Inc. | 29 | 5/1/62 |
| Cities Service Co. | 377 | 11/8/60 |
| Claiborne Gasoline Co. | | 8/14/59 |
| Continental Oil Co. | 114 | 2/16/62 |
| Exxon Corp. | 10 | 2/20/64 |
| Exxon Corp. | 258 | |
| Exxon Corp. | 40 | 5/1/52 |
| Exxon Corp. | 391 | 10/1/62 |
| Getty Oil Co. | 191 | 10/26/72 |
| Getty Oil Co. | 241 | 6/1/68 |
| Sun Oil Co. | 88 | 11/28/56 |
| Sun Oil Co. | 88 | 1/20/60 |
| Tenneco Oil Co. | 112 | 6/15/64 |
| Tri-State Gas Group | SPC | 6/6/63, 6/11/75, 6/1/72 |

[FR Doc. 80-1422 Filed 1-18-80; 8:45 am]

BILLING CODE 6450-01-M

## ENVIRONMENTAL PROTECTION AGENCY

[OPP-180392 FRL 1395-2]

## Department of Agriculture; Issuance of Specific Exemption To Use Permethrin-Coated Bags To Protect Processed Grain Products for Export Shipment

**AGENCY:** Environmental Protection Agency (EPA), Office of Pesticide Programs.

**ACTION:** Issuance of specific exemption.

**SUMMARY:** EPA has granted a specific exemption to the Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture (hereafter referred to as the "Applicant"), to use permethrin in the treatment of multiwall paper bags used for shipment and storage of processed grain products destined for export. The specific exemption expires on October 26, 1980.

**FOR FURTHER INFORMATION CONTACT:** Emergency Response Section, Registration Division (TS-767), Office of Pesticide Programs, EPA, 401 M Street, S.W., Room: E-124, Washington, D.C. 20460, Telephone: 202/426-0223. It is suggested that interested persons telephone before visiting EPA Headquarters, so that the appropriate files may be made conveniently available for review purposes.

**SUPPLEMENTARY INFORMATION:** In the past, the Applicant has used pyrethrin-treated multiwall paper bags for the storage and shipment of processed grain products overseas. Pyrethrin is registered for this use; however, due to a shortage of pyrethrin, treated bags were not available during the 1979 shipping season and the Applicant anticipates the shortage will continue through the 1980 season. There is no registered alternative pesticide-treated bag for the protection of grain products during shipment and storage. According to the Applicant, millions of dollars in processed grain products will be lost to insect damage without the use of an effective alternative to the pyrethrin-treated bags. The processed grain products include: whey drink mix, corn soy blend, wheat soy blend, corn soy milk, instant corn soy milk, soy-fortified corn meal, soy-fortified sorghum grits, soy-fortified rolled oats, and flour.

The Applicant has requested authorization for shipment of the products Permethrin Coating Powder (B) or Permanone 40 EC, from the Fairfield American Corporation in New York to the three companies that produce the bags. Permethrin will be applied as an aqueous slurry by surface coating or by emulsion at a rate of 5 milligrams active ingredient (a.i.) per square foot of paper. Reams of the coated paper will then be shipped to the manufacturers of the finished bags. A total of 3,220 pounds a.i. will be used to produce 30,000,000 bags. Each bag will be constructed of a 3-mil food grade polyethylene film liner, three plies of 50-pound basic weight kraft paper, one 33-pound grease-proof barrier paper, and one outer ply of 60-pound wet strength natural kraft paper treated with permethrin.

Based on available information, EPA has determined that a residue level of 0.5 part per million (ppm) in the grain products listed above is adequate to protect the health of those for whom the grain products are intended and that the proposed use should not exceed this level.

Although the proposed use of permethrin-treated bags is not expected to pose a hazard to the environment, there is a potential hazard involved with the disposal of waste material from the permethrin coating process. Therefore, EPA is requiring that the permethrin slurry and washings be collected and disposed of in an approved landfill or incinerator.

After reviewing the application and other available information, EPA has determined that (a) there is a shortage of the only pesticide registered to protect paper bags used for shipping and storing of processed grains; (b) there are no alternative means of control, taking into account the efficacy and hazard; (c) significant economic and health problems may result if the grain products are not protected; and (d) the time available for action to mitigate the problems posed is insufficient for a pesticide to be registered for this use. Accordingly, the Applicant has been granted a specific exemption to use the pesticide noted above until October 26, 1980, to the extent and in the manner set forth in the application. The specific exemption is also subject to the following conditions:

1. The products Permethrin Coating Powder (B) and Permanone 40 EC are authorized for shipment from the Fairfield American Corporation in Middleport, New York, to the St. Regis Paper Company in Cantonment, Florida; Bemis Company in Peoria, Illinois; and Great Plains Bag Corporation, in Hodge, Louisiana;

2. A maximum of 3,220 pounds a.i. permethrin is authorized for shipment and use in the production of coated paper;

3. Permethrin will be applied as an aqueous slurry by surface coating or by

emulsion at a rate of 5 milligrams per square foot of paper;

4. A total of no more than 3,000 tons of permethrin-coated paper may be produced by the three companies listed in item 1 above and shipped to the manufacturers listed in item 5 below for conversion to permethrin-coated multiwall bags for the Applicant's export program;

5. The companies which will produce the multiwall bags include:

a. Bancroft Bag Inc.
b. Bemis Co., Inc.
c. Chase Bag Co.
d. Gilman Paper Co.
e. Great Plains Bag Corp.
f. Greif Brothers Corp.
g. St. Regis Paper Co.

6. Up to 30,000,000 permethrin-coated bags may be produced and shipped to millers where the processed grain products will be packaged for export shipment;

7. The bag construction, from the inside outward, shall consist of a 3-mil low density polyethylene liner next to the product, three plies of 50-pound natural kraft paper, one ply of a 33-pound grease-proof barrier paper and an outermost ply of 60-pound wet strength kraft paper treated with permethrin;

8. Copies of the product labels must be submitted to EPA prior to the shipment of Permethrin Coating Powder (B) or Permanone 40 EC, the reams of permethrin-coated paper, and the palletloads of finished bags. All permethrin-coated bags must be labeled with the words "For Export Only";

9. All label restrictions and precautions on the product labels shall be followed;

10. This use of permethrin-coated bags is not expected to result in residues of permethrin in processed grain products in excess of 0.5 ppm;

According to the Federal Food, Drug, and Cosmetic Act, a food intended for export shall not be adulterated or misbranded if it (a) accords to the specifications of the foreign purchaser, (b) is not in conflict with the laws of the country to which it is intended for export, and (c) is labeled on the outside of the shipping package to show that it is intended for export;

12. This exemption is not a modification of any NPDES permits which may be issued and does not constitute a waiver of State or Federal discharge limitations;

13. The paper-treating companies named in item 1 must take precautions to insure that permethrin is not discharged with the plant's effluent. Excess permethrin slurry and washings derived from the cleaning of equipment must be disposed of in an approved landfill or incinerator. These companies should contact the EPA Regional Office for their area to determine appropriate disposal sites; and

14. The Applicant is responsible for assuring that all of the provisions of this specific exemption are met and must submit a report summarizing the results of this program by December 31, 1980.

(Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended in 1972, 1975, and 1978 (92 Stat. 819; 7 U.S.C. 136).)

Dated January 11, 1980.

Edwin L. Johnson,

*Deputy Assistant Administrator for Pesticide Programs.*

[FR Doc. 80-1823 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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[OPP-00111; FRL 1395-3]

## State FIFRA Issues Research and Evaluation Group (SFIREG); Open Meeting

**AGENCY:** Environmental Protection Agency (EPA), Office of Pesticide Programs.

**ACTION:** Notice of Open Meeting.

**SUMMARY:** There will be a one-day meeting of the State FIFRA Issues Research and Evaluation Group (SFIREG) on Monday, March 3, 1980, beginning at 8:30 a.m. and ending at 4:30 p.m. The meeting will be held at the Holiday Inn—Thomas Circle, Washington, D.C. and will be open to the public.

**FOR FURTHER INFORMATION CONTACT:** Mr. P. H. Gray, Jr., Operations Division (TS-770-M), Office of Pesticide Programs, EPA, 401 M Street, S.W., Washington, D.C. 20460, Telephone: 202/472-9400.

**SUPPLEMENTARY INFORMATION:** This is the fifth meeting of the full Group. The tentative agenda thus far includes the following topics:

1. Action items from the December, 1979 meeting of SFIREG;
2. Regional reports;
3. Working Committee reports; and
4. Other topics which may arise.

Dated: January 11, 1980.

Edwin L. Johnson,

*Deputy Assistant Administrator for Pesticide Programs.*

[FR Doc. 80-1824 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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[OPTS-51016; FRL 1395-4]

## Office of Pesticides and Toxic Substances; Premanufacture Notices

**AGENCY:** Environmental Protection Agency (EPA, or the Agency).

**ACTION:** Receipt of Premanufacture Notices.

**SUMMARY:** Section 5(a)(1) of the Toxic Substances Control Act (TSCA) requires any person who intends to manufacture or import a new chemical substance to submit a premanufacture notice (PMN) to EPA at least 90 days before manufacture or import. Section 5(d)(2) requires EPA to publish a summary of each PMN in the Federal Register. This Notice announces receipt of PMN's and provides a summary of each.

**DATE:** Persons who wish to file written comments on a PMN should submit their comments no later than 30 days before the applicable notice review period ends.

**ADDRESS:** Written comments should bear the PMMN number of the particular chemical substance, and should be submitted in triplicate to the Document Control Officer (TS-793), Office of Pesticides and Toxic Substances, EPA, 401 M Street, S.W., Washington, D.C. 20460.

Nonconfidential portions of the PMN's and other documents in the public record are available for public inspection from 8:00 a.m. to 4:00 p.m., Monday through Friday (excluding holidays), in Room E-447 at the address above.

**FOR FURTHER INFORMATION CONTACT:**

*Notice manager, PMN No., and telephone*

Mr. Scott Flamm, 5AHQ-1279-0088, 202/426-3890.

Mr. Steve Atkinson, 5AHQ-0180-0096, 202/426-3936.

Mail Address: Premanufacturing Review Division (TS-794), Office of Pesticides and Toxic Substances, EPA, Washington, D.C. 20460.

**SUPPLEMENTARY INFORMATION:** Section 5(a)(1) of TSCA requires any person who intends to manufacture or import a new chemical substance to submit a PMN to EPA at least 90 days before manufacture or import. A "new" chemical substance is any substance that is not on the Inventory of existing substances compliled by EPA under § 8(b) of TSCA. EPA first published the Initial Inventory on June 1, 1979. (Notice of availability of the Initial Inventory was published in the Federal Register on May 15, 1979 (44 FR 28558)). The requirement to submit a PMN for new chemical substances manufactured or

imported for a commercial purpose became effective on July 1, 1979.

EPA has proposed premanufacture notification rules and forms (44 FR 2242, January 10, 1979). These regulations, however, are not yet in effect. Interested persons should consult the Agency's Interim Policy (44 FR 28564, May 15, 1979) for guidance concerning premanufacture notification requirements prior to the effective date of these rules and forms. In particular, see the section entitled "Notice in the Federal Register" on p. 28567 of the Interim Policy. (44 FR 28564; May 15, 1979)

A PMN must include the information listed in § 5(d)(1) of TSCA. Under § 5(d)(2) EPA must publish in the Federal Register nonconfidential information on the identity and uses of the substance, as well as a description of any test data submitted under §5(b). In addition, EPA has decided to publish a description of any test data submitted with the PMN and EPA will publish the identity of the submitter unless this information is claimed confidential.

Publication of the § 5(d)(2) notice is subject to § 14 concerning disclosure of confidential information. A company can claim confidentiality for any information submitted as part of a PMN. If the company claims confidentiality for the specific chemical identity or use(s) of the chemical, EPA encourages the submitter to provide a generic use description, a non-confidential description of the potential exposures from use, and a generic name for the chemical. EPA will publish the generic name, and the generic use and the potential exposure descriptions in the Federal Register.

If no generic use description or generic name is provided, EPA will develop one and after providing due notice to the submitter, will publish an amended Federal Register notice. EPA immediately will review confidentiality claims for chemical identity, chemical use, the identity of the submitter, and for health and safety studies. If EPA determines that portions of this information are not entitled to confidential treatment, the Agency will publish an amended notice and will place the information in the public file, after notifying the submitter and complying with other applicable procedures.

EPA normally has 90 days to review a PMN once the Agency receives it (§ 5(a)(1)). The § 5(d)(2) Federal Register notice indicates the date when the review period ends for each PMN. Under § 5(c), EPA may for good cause extend the review period for up to an additional 90 days. If EPA determines that an extension is necessary, it will publish a notice in the Federal Register.

Once the review period ends, the submitter may manufacture the substance unless EPA has imposed restrictions. When the submitter begins to manufacture the substance, he must report to EPA, and the Agency will add the substance to the Inventory. After the substance is added to the Inventory, any company may manufacture it without providing EPA notice under § 5(a)(1)(A).

(Section 5 of the Toxic Substances Control Act (90 Stat. 2012; 15 U.S.C. 2604))

Dated: January 14, 1980.

John P. DeKany,

*Deputy Assistant Administrator for Chemical Control.*

*PMN No.:* 5AHQ–1279–0088.

*Close of Review Period:* April 1, 1980.

*Manufacturer's Identity:* Manufacturer's identity is claimed confidential.

*Specific Chemical Identity:* Generic name—ring halogenated cyclic dicarboxylic salt.

*Use:* Claimed confidential.

*Data:* The following test data were submitted on a precursor substance: Acute oral toxicity, acute dermal toxicity, acute skin irritation, acute eye irritation, acute inhalation toxicity, subacute dermal toxicity, subacute inhalation toxicity, a mutagenicity study, a teratogenicity study, a patch test, and fish acute toxicity tests.

*PMN No.:* 5AHQ–0180–0096.

*Close of Review Period:* April 1, 1980.

*Manufacturer's Identity:* FarBest Corp., 6715 McKinley Ave., Los Angeles, CA 90001.

*Specific Chemical Identity:* Generic name—3-Alkoxy($C_{10}$-$C_{14}$)-2-hydroxypropyl ester of dimer/trimer acids (fatty ester).

*Use:* The substance is used in lubricants sold to producers of ferrous or non-ferrous rolled metal. Customers include major steel and aluminum firms.

Data

*Physical/Chemical Properties*

Physical appearance: Clear, viscous liquid.
Color, Gardner: 8–10.
Odor: Mild fatty oil.
Flash point, Cleveland open cup: 495°F.
Viscosity, Ubbelohde, centistokes: 1600–1750.
Specific gravity at 24°C: 0.920.
Acid value, mg KOH/g: 30 maximum.
Saponification value, mg KOH/g: 117±13.

*Test Data*

The manufacturer submitted results from two tests.

1. Primary skin irritation: Irritation index = 0.6, on a scale in which 1 = barely perceptible irritation, 4 = severe irritation. Submitter claims that under the conditions of the test, the substance meets Consumer Products Safety Commission requirements for classification as non-irritant.

2. Oral toxicity (one dose): $LD_{50}$ exceeds lg/kg of body weight. No lethal effects were produced at this level.

Related Substances: Manufacturer indicated that the precursor substances are classified as non-hazardous according to Occupational Safety and Health Administration criteria.

Occupational Exposure: The manufacturer claims that: (1) The fatty ester is non-volatile and there are no vapor concentrations encountered in the work area; (2) The physical state of the fatty ester is a viscous fluid, having a typical viscosity of 1670 centistokes, Ubbelohde at 100°F; and (3) the only direct exposure would be accidental skin contact.

Environmental Release/Disposal: The manufacturer states that due to the non-volatile nature of the precursors and their reaction product (fatty ester) there are no chemicals released during handling or preparation. The manufacturer states further that the reactor, a closed system, is facilitated with a total reflux condenser.

[FR Doc. 80-1826 Filed 1-18-80; 8:45 am]
BILLING CODE 6560-01-M

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[OPP-180408; FRL 1394-8]

## Florida Department of Agriculture and Consumer Services; Issuance of Specific Exemption To Use Permethrin on Green Beans To Control Vegetable Leafminer

**AGENCY:** Environmental Protection Agency (EPA), Office of Pesticide Programs.

**ACTION:** Issuance of specific exemption.

**SUMMARY:** EPA has granted a specific exemption to the Florida Department of Agriculture and Consumer Services (hereafter referred to as the ("Applicant") to use permethrin to control the vegetable leafminer on 40,000 acres of green beans in five counties in Florida. The specific exemption expires on June 30, 1980.

**FOR FURTHER INFORMATION CONTACT:** Emergency Response Section, Registration Division (TS–767), Office of Pesticide Programs, EPA, 401 M Street, S.W., Room: E–124, Washington, D.C. 20460, Telephone: 202/426–0223. It is suggested that interested persons telephone before visiting the EPA Headquarters, so that the appropriate files may be made conveniently available for review purposes.

**SUPPLEMENTARY INFORMATION:** According to the Applicant, the

vegetable leafminer (*Liriomyza sativae*) destroys the leaf tissue of green beans. In large numbers the leafminer will defoliate bean plants and cause plant death, or delay growth and maturity, and reduce yield. The Applicant reports that the vegetable leafminer has become the most important insect pest of green beans due to the susceptibility of green beans to the pest and the practice of intense cultivation of green beans in the same areas. The Applicant states that populations that build up on a maturing crop often move to adjacent or other nearby fields of green beans, tomatoes, or other susceptible crops and cause devastating losses in short periods of time. The Applicant claims that in most areas control of the vegetable leafminer on green beans would be beneficial not only to the bean grower but also to other vegetable growers in the area, since migration of uncontrolled populations causes additional pesticide usage on these other crops. Population explosions may be aided by the use of currently labeled materials which fail to control the vegetable leafminer but nearly eliminate their predators and parasites, according to the Applicant. Data indicate that permethrin will control the pest. The Applicant estimates a loss of $10 million for 40,000 acres of green beans without a control program.

The Applicant proposed to treat an area in that portion of the State that lies south of a line formed by and including the counties of Brevard, Citrus, Lake, Seminole, and Sumter. The products Ambush and Pounce, which contain the active ingredient (a.i.) permethrin, will be used.

EPA has determined that residues of permethrin in or on green beans from the proposed plan should not exceed 0.3 part per million (ppm). This residue level has been judged adequate to protect the public health. Since there are no data with respect to residues for bean vines and bean straw, EPA has prohibited the feeding of these items to livestock.

EPA has considered the possibility of an impact on an endangered species found in this area, the Everglade kite, through possible reduction of the apple snail. While it is possible, it is highly unlikely that the number of apple snails will be reduced sufficiently to cause a problem. Green bean fields are not prime habitat for the snail. If permethrin does enter the aquatic environment near the fields, it could affect the snails in the immediate vicinity. EPA has established buffer zones to prevent unreasonable hazard to aquatic organisms and the Applicant has been warned of the possible consequences of ignoring them.

After reviewing the application and other available information, EPA had determined that (a) a pest outbreak of vegetable leafminers has occurred; (b) there is no effective pesticide presently registered and available for use to control the vegetable leafminer in Florida; (c) there are no alternative means of control taking into account the efficacy and hazard; (d) significant economic problems may result if the vegetable leafminer is not controlled; and (e) the time available for action to mitigate the problems posed is insufficient for a pesticide to be registered for this use. Accordingly, the Applicant has been granted a specific exemption to use the pesticide noted above until June 30, 1980, to the extent and in the manner set forth in the application. The specific exemption is also subject to the following conditions:

1. The products, Ambush (EPA Reg. No. 10182–18) manufactured by ICI Americas, Inc., and Pounce 3.2 EC (EPA Reg. No. 279–3014) manufactured by FMC Corp., are authorized;

2. Applications may be made to green bean fields in the areas named above;

3. Total acreage treated may not exceed 40,000 acres;

4. Permethrin will be used at a rate of 0.05 to 0.10 pound a.i. per acre per application. A maximum of three applications will be made;

5. Applications may be made as required. A seven-day pre-harvest interval is imposed;

6. A maximum of 12,000 pounds a.i. may be applied;

7. Applications of permethrin may be made by ground or air equipment;

8. Applications may be made with ground equipment using a rate of 40 to 60 gallons of water per acre, or by aerial equipment using a rate of 3 to 8 gallons of water per acre;

9. All applications will be made by State-certified applicators, or persons under their direct supervision. A 60-day crop rotation restriction is imposed;

10. Application may take place only after a determination has been made that 20 percent or more defoliation of plants has occurred prebloom or 10 percent or more defoliation has occurred post-bloom;

11. Permethrin should not be applied any closer to fishbearing waters than indicated in the chart below:

| Application method | Aerial | | | Ground | | |
|---|---|---|---|---|---|---|
| Application height (feet) | 10 | | | 2 | | |
| Application rate (lbs. A.I.) | .05 | 0.1 | 0.2 | 0.05 | 0.1 | 0.2 |
| Fresh water (distance in feet) | 585 | 990 | 1,600 | 117 | 198 | 320 |
| Salt water (distance in feet) | 1,847 | 2,779 | 3,950 | 363 | 556 | 790 |

The Applicant is warned that applications closer than those allowed in the above chart may result in aquatic organism kills;

12. Precautions must be taken to avoid or minimize spray drift to non-target areas;

13. These products are highly toxic to bees exposed to direct treatment or to residues on crops or weeds. They may not be applied, or allowed to drift, to weeds in bloom on which economically significant numbers of bees are actively foraging. Protective information may be obtained from the State Cooperative Agricultural Extension Service;

14. Permethrin is extremely toxic to fish and aquatic invertebrates. It must be kept out of lakes, streams, ponds, tidal marshes and estuaries. Care must be taken to prevent contamination of water by the cleaning of equipment or disposing of waste;

15. Green beans treated according to the above provisions are not expected to have residues of permethrin in excess of 0.3 ppm. Green beans with residues of permethrin not exceeding this level may enter interstate commerce. The Food and Drug Administration, U.S. Department of Health, Education, and Welfare, has been advised of this action;

16. All applicable directions, restrictions, and precautions on the product labels must be followed;

17. Bean vines and straw from treated fields may not be grazed or fed to livestock;

18. The Florida Everglade kite, an endangered species, is endemic to regions in the treatment area. Applications of the pesticide according to the above instructions and restrictions is expected to minimize the risk to this bird. Permethrin should not be applied in areas where spray drift could possible have an impact on aquatic ecosystems containing federally designated endangered and threatened species. Liaison should be established between the Applicant and the Florida Fresh water Fish and Game Commission in order to protect fish and wildlife;

19. The EPA shall be informed immediately of any adverse effects resulting from this use of permethrin; and

20. The Applicant shall be responsible for assuring that all the provisions of this specific exemption are met and must submit a final report summarizing the results of this program by September 1, 1980.

(Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as

amended in 1972, 1975, and 1978 (92 Stat. 819; 7 U.S.C. 136))

Dated: January 11, 1980.

Edwin L. Johnson,

*Deputy Assistant Administrator for Pesticide Programs.*

[FR Doc. 80-1821 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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[OPP-180402; FRL 1395-1]

## Texas Department of Agriculture; Crisis Exemption To Use DDT To Control Bats

**AGENCY:** Environmental Protection Agency (EPA), Office of Pesticide Programs.

**ACTION:** Notice of temporary crisis exemption.

**SUMMARY:** EPA gives notice that the Texas Department of Agriculture (hereafter referred to as "Texas") availed itself of a crisis exemption to use DDT to control bats. Since treatment was expected to exceed 15 days, Texas requested a specific exemption for continuation of the program.

**FOR FURTHER INFORMATION CONTACT:** Emergency Response Section, Registration Division (TS-767), Office of Pesticide Programs, EPA, 401 M Street, S.W., Room E-124, Washington, D.C. 20460, Telephone: 426-0223. It is suggested that interested persons telephone before visiting EPA Headquarters, so that the appropriate files may be made conveniently available.

**SUPPLEMENTARY INFORMATION:** Texas notified EPA on October 25, 1979 that it had declared a crisis to permit the use of DDT to control bats within the City of Yoakum. According to Texas, the Texas Health Department had confirmed two cases of rabies in Yoakum in an area where bat populations were very high. No chemical pesticide is registered for bat control, Texas reported, and there is no other method available to reduce bat populations.

Old buildings with unoccupied second stories and in poor state of repair were treated. A State-licensed pest control operator applied 50 percent DDT tracking powder at rates recommended by the State Health Department as being safe and effective. Precautions were taken by the applicator to prevent any material from coming in contact with people in the area. The State Health Department monitored the program. Texas has requested a specific exemption for continuation of this program since treatment of buildings with high bat populations will require more than 15 days.

Statutory Authority: Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended in 1972, 1975, and 1978 (92 Stat. 819; 7 U.S.C 136).

Dated: January 11, 1980.

Edwin L. Johnson,

*Deputy Assistant Administrator for Pesticide Programs.*

[FR Doc. 80-1822 Filed 1-18-80; 8:45 am]

BILLING CODE 6560-01-M

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## FARM CREDIT ADMINISTRATION

[Farm Credit Administration Order No. 825]

## Authority of the Deputy Governor, Office of Supervision, and Order of Precedence of Certain Officers To Act as Deputy Governor, Office of Supervision (Revocation of FCA Order No. 809)

**AGENCY:** Farm Credit Administration.

**ACTION:** Notice.

The Governor of the Farm Credit Administration issued Order No. 825 authorizing in the event the Deputy Governor, Office of Supervision is absent or unable to perform the duties of his office, certain officers are authorized to perform the necessary functions of the office. The text of the Order is as follows:

1. The Deputy Governor, Office of Supervision, shall, subject to the jurisdiction and control of the Governor of the Farm Credit Administration, execute and perform all power, authority, and duties relative to supervision of the credit, finance, and operation functions of the institutions of the Farm Credit System and to all matters incidental thereto, and to administration of all provisions of law pertinent to such supervision.

2. In the event the Deputy Governor, Office of Supervision, Farm Credit Administration, is absent or is not able to perform the duties of his office for any other reason, the officer who is highest on the following list and who is available to act is hereby authorized to exercise and perform all functions, power, authority, and duties of the Deputy Governor, Office of Supervision, pertaining to the credit, finance, and operation functions:

(a) Associate Deputy Governor, Office of Supervision.

(b) Assistant Deputy Governor, Office of Supervision.

(c) Director, Western Division, Office of Supervision.

(d) Director Central Division, Office of Supervision.

(e) Director, Eastern Division, Office of Supervision.

3. This order shall be effective on January 16, 1980, and revokes Farm Credit Administration Order No. 809, dated February 8, 1978, 43 FR 6840.

Donald E. Wilkinson,

*Governor of Farm Credit Administration.*

[FR Doc. 80-1832 Filed 1-18-80; 8:45 am]

BILLING CODE 6705-01-M

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## FEDERAL COMMUNICATIONS COMMISSION

[FCC 80-8]

## A Closed Circuit Test of Emergency Broadcast System During the Week of January 21, 1980.

January 15, 1980

A test of the Emergency Broadcast System (EBS) has been scheduled during the week of January 21, 1980. Only ABC, MBS, NPR, AP Radio, CBS, IMN, NBC, and UPI Audio Radio network affiliates will receive the Test Program for the Closed Circuit Test. AP and UPI wire service clients will receive activation and termination messages of the Closed Circuit Test. Television networks are not participating in the Test.

Network and press wire service affiliates will be notified of the test procedures via their network approximately 30 to 45 minutes prior to the test.

Final evaluation of the test is scheduled to be made about one month after the Test.

*This is a closed circuit test and will not be broadcast over the air.*

Action by the Commission January 14, 1980. Commissioners Ferris (Chairman), Lee, Quello, Washburn, Fogarty, Brown and Jones.

Federal Communications Commission.

William J. Tricarico,

*Secretary.*

[FR Doc. 80-1801 Filed 1-18-80; 8:45 am]

BILLING CODE 6712-01-M

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## FEDERAL HOME LOAN BANK BOARD

[No. AC-69]

## Citizens Federal Savings & Loan Association of Matteson, Matteson, Ill.; Notice of Final Action, Approval of Conversion Application

Notice is hereby given that on December 13, 1979, the Federal Home Loan Bank Board ("Board"), as operating head of the Federal Savings and Loan Insurance Corporation, by Board Resolution No. 79-638 approved the application of Citizens Federal

Savings and Loan Association of Matteson, Matteson, Illinois for permission to convert to the stock form of organization. Copies of the application are available for inspection at the Secretariat of said Board, 1700 G Street, N.W., Washington, D.C. 20552 and at the Office of the Supervisory Agent of said Board at the Federal Home Loan Bank of Chicago, 111 East Wacker Drive, Suite 800, Chicago, Illinois 60601.

Dated: January 8, 1980.

By the Federal Home Loan Bank Board.

J. J. Finn,

*Secretary.*

[FR Doc. 80-1818 Filed 1-18-80; 8:45 am]

BILLING CODE 6720-01-M

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[No. AC-70]

## Naples Federal Savings & Loan Association, Naples, Fla.; Notice of Post Approval Amendment of Conversion Application, Notice of Final Action

Notice is hereby given that on December 21, 1979, the Federal Home Loan Bank Board, as the operating head of the Federal Savings and Loan Insurance Corporation, by Resolution No. 79-707, approved the amendment to the application of Naples Federal Savings and Loan Association, Naples, Florida, for permission to convert to the stock form of organization. The application to convert was approved on November 8, 1979, by Resolution No. 79-548. Copies of the application are available for inspection at the Office of the Secretary of said Corporation, 1700 G Street, N.W., Washington, D.C. 20552 and at the Office of the Supervisory Agent of said Corporation at the Federal Home Loan Bank of Atlanta, Coastal States Building, 250 Peachtree Center, N.W. Atlanta, Georgia.

Dated: January 9, 1980.

By the Federal Home Loan Bank Board.

J. J. Finn,

*Secretary.*

[FR Doc. 80-1817 Filed 1-18-80; 8:45 am]

BILLING CODE 6720-01-M

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# FEDERAL RESERVE SYSTEM

## Dublin Bancshares, Inc.; Formation of Bank Holding Company

Dublin Bancshares, Inc., Hawkinsville, Georgia, has applied for the Board's approval under section 3(a)(1) of the Bank Holding Company Act (12 U.S.C. 1842(a)(1)) to become a bank holding company by acquiring 80 per cent or more of the voting shares of The Morris State Bank, Dublin, Georgia. The factors that are considered in acting on the application are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of Atlanta. Any person wishing to comment on the application should submit views in writing to the Reserve Bank to be received not later than February 14, 1980. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Board of Governors of the Federal Reserve System, January 14, 1980.

Griffith L. Garwood,

*Deputy Secretary of the Board.*

[FR Doc. 80-1791 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

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## Peoples Equity Corp.; Acquisition of Bank

Peoples Equity Corporation, Wells, Minnesota, has applied for the Board's approval under section 3(a)(3) of the Bank Holding Company Act (12 U.S.C. 1842(a)(3)) to acquire more than 98 per cent of the voting shares of Peoples State Bank of Wells, Wells, Minnesota. The factors that are considered in acting on the application are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of Minneapolis. Any person wishing to comment on the application should submit views in writing to the Reserve Bank to be received not later than February 14, 1980. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Board of Governors of the Federal Reserve System, January 14, 1980.

Griffith L. Garwood,

*Deputy Secretary of the Board.*

[FR Doc. 80-1792 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

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## Woodfield Bancorp, Inc., Formation of Bank Holding Company

Woodfield Bancorp, Inc., Schaumburg, Illinois, has applied for the Board's approval under section 3(a)(1) of the Bank Holding Company Act (12 U.S.C. 1842(a)(1)) to become a bank holding company by acquiring 80 percent or more of the voting shares of Suburban National Bank of Woodfield, Schaumburg, Illinois. The factors that are considered in acting on the application are set forth in section 3 (c) of the Act (12 U.S.C. 1842(c)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of Chicago. Any person wishing to comment on the application should submit views in writing to the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551 to be received no later than February 14, 1908. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Board of Governors of the Federal Reserve System, January 14, 1980.

Griffith L. Garwood,

*Deputy Secretary of the Board.*

[FR Doc. 80-1793 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

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## Bank Holding Companies; Notice of Proposed De Novo Nonbank Activities

The bank holding companies listed in this notice have applied, pursuant to section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and 225.4(b)(1) of the Board's Regulation Y (12 CFR 225.4(b)(1)), for permission to engage *de novo* (or continue to engage in an activity earlier commenced *de novo*), directly or indirectly, solely in the activities indicated, which have been determined by the Board of Governors to be closely related to banking.

With respect to each application, interested persons may express their views on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interest, or unsound banking practices." Any comment on an application that requests a hearing must include a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a

hearing, and indicating how the party commenting would be aggrieved by approval of that proposal.

Each application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank indicated for that application. Comments and requests for hearings should identify clearly the specific application to which they relate, and should be submitted in writing and received by the appropriate Federal Reserve Bank not later than February 15, 1980.

A. *Federal Reserve Bank of Richmond* (Lloyd W. Bostian, Jr., Vice President) 701 East Byrd Street, Richmond, Virginia 23261:

UNION TRUST BANCORP, Baltimore, Maryland (insurance activities; Florida): to expand the activities of the Jacksonville, Florida, office of its subsidiary, Landmark Financial Services, Inc., to include acting as agent in the sale of insurance protecting collateral held against extensions of credit. The area to be served is Jacksonville, Florida.

B. *Federal Reserve Bank of Chicago* (Franklin D. Dreyer, Vice President) 230 South LaSalle Street, Chicago, Illinois 60690:

1. MILLIKIN BANCSHARES, INC., Decatur, Illinois (financing activities; Illinois): to engage through its subsidiary, Millikin Financial Services, Inc., in making loans to consumers. This activity would be conducted from an office in Decatur, Illinois, serving Christian, Sangamon, Logan, DeWitt, Piatt, Moultrie, Shelby, and Macon Counties, Illinois.

2. CENTRAL NATIONAL BANCSHARES, INC., Des Moines, Iowa (real property leasing, financing and insurance; Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota and Wisconsin): to engage through its subsidiary, CNB Leasing Corporation in leasing real property, sale of credit life and credit accident and health insurance that is directly related to the provision of financial services (leasing of real and personal property) by the subsidiary, and the making of loans and extensions of credit (including issuing letters of credit) with respect to the purchase of real and personal property which is, or will become, subject to a lease on which the subsidiary will be the lessor. These activities will be conducted at an office in Des Moines, Iowa, serving the States listed above.

c. *Other Federal Reserve Banks:* None.

Board of Governors of the Federal Reserve System, January 15, 1980.

**Griffith L. Garwood,**

*Deputy Secretary of the Board.*

[FR Doc. 80-1844 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

## Elk Grove Bancorp, Inc.; Formation of Bank Holding Company.

Elk Grove Bancorp, Inc., Elk Grove Village, Illinois, has applied for the Board's approval under section 3(a)(1) of the Bank Holding Company Act (12 U.S.C. 1842(a)(1)) to become a bank holding company by acquiring 80 per cent or more of the voting shares of Suburban National Bank of Elk Grove Village, Elk Grove Village, Illinois. The factors that are considered in acting on the application are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of Chicago. Any person wishing to comment on the application should submit views in writing to the Secretary, Board of Governors of the Federal Reserve System, Washington, D.C. 20551 to be received no later than February 15, 1980. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Board of Governors of the Federal Reserve System, January 15, 1980.

**Griffith L. Garwood,**

*Deputy Secretary of the Board.*

[FR Doc. 80-1845 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

## Fidelity Corp.; Acquisition of Bank

Fidelity Corporation, Burke, South Dakota, has applied for the Board's approval under § 3(a)(3) of the Bank Holding Company Act (12 U.S.C. 1842(a)(3)) to acquire 78.32 per cent or more of the voting shares of First Fidelity Bank, Colome, South Dakota. The factors that are considered in acting on the application are set forth in § 3(c) of the Act (12 U.S.C. 1842(c)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of Minneapolis. Any person wishing to comment on the application should submit views in writing to the Reserve Bank to be received not later than February 15, 1980. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Board of Governors of the Federal Reserve System, January 15, 1980.

**Griffith L. Garwood,**

*Deputy Secretary of the Board.*

[FR Doc. 80-1846 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

## Fidelity Corp.; Acquisition of Bank

Fidelity Corporation, Burke, South Dakota, has applied for the Board's approval under section 3(a)(3) of the Bank Holding Company Act (12 U.S.C. 1842(a)(3)) to acquire 97 percent or more of the voting shares of First Fidelity Bank, Murdo, South Dakota. The factors that are considered in acting on the application are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank of Minneapolis. Any person wishing to comment on the application should submit views in writing to the Reserve Bank to be received not later than February 15, 1980. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Board of Governors of the Federal Reserve System, January 15, 1980.

**Griffith L. Garwood,**

*Deputy Secretary of the Board.*

[FR Doc. 80-1847 Filed 1-18-80; 8:45 am]

BILLING CODE 6210-01-M

# DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

## Health Care Financing Administration

## Pharmaceutical Reimbursement Board; Proposed MAC's and Announcement of Public Hearing

**AGENCY:** Health Care Financing Administration (HCFA), HEW.

**ACTION:** Notice.

**SUMMARY:** The Pharmaceutical Reimbursement Board proposes maximum allowable cost (MAC) limits on the drugs specified below and announces a public hearing with regard to these proposed MAC limits.

**DATES:** Hearing—March 12, 1980 (9 a.m.–5 p.m.) and March 13, 1980

(9 a.m.–5 p.m.). End of comment period; February 25, 1980. End of period for submission of requests to appear at the hearing; February 25, 1980.

Interested persons and organizations are invited to submit in writing comments on the proposed MACs. All comments received by February 25, 1980, will be considered and will be maintained for public inspection in the office of the Pharmaceutical and Medical Services Reimbursement Branch.

A public hearing on the proposed MACs will be held March 12 and 13, 1980. Persons or organizations wishing to make presentations must submit to the Board's Executive Secretary by February 25, 1980, at least 20 copies of the proposed oral presentation in its entirety together with all supporting studies and materials and the names and addresses of proposed participants. The Board will grant every request to appear if the presentation is relevant to the proposed MAC.

**PLACE OF HEARING:** Multi-Purpose Room, 1st Floor, Altmeyer Building, 6401 Security Boulevard, Baltimore, Maryland 21235.

**FOR FURTHER INFORMATION CONTACT:** Charles Spalding, Acting Executive Secretary, Pharmaceutical Reimbursement Board, 1–C–5 East Low Rise, 6401 Security Boulevard, Baltimore, Maryland 21235 (301) 594–5403.

**SUPPLEMENTARY INFORMATION:** The Pharmaceutical Reimbursement Board has been established within the Health Care Financing Administration for the purpose of setting MAC limits on certain multiple source drugs for which reimbursement is provided under Medicaid, Medicare and other programs administered by the Department. Pursuant to 45 CFR 19.5 the Pharmaceutical Reimbursement Board proposes the following MAC limits:

*Drug and MAC Limit*

Potassium chloride, oral liquid, 10%—$0.0030 per ml.
Fluocinolone acetonide, topical solution, .01%—$0.1043 per ml.
Fluocinolone acetonide, topical cream .01%—$0.0712 per Gm.
Fluocinolone acetonide, topical cream .025%—$0.2087per Gm.
Griseofulvin, microcrystalline, oral tablet, 500 mg—$0.2818 per tab.
Methenamine hippurate, oral tablet, 1 Gm—$0.1453 per tab.
Dicloxacillin sodium, oral capsule, 250 mg—$0.2215 per cap.
Dicloxacillin sodium, oral suspension, 62.5 mg/5 ml.—$0.0236 per ml.
Quinidine sulfate, oral tablet, 200 mg—$0.0645 per tab.
Hydrochlorothiazide, oral tablet, 25 mg—$0.0152 per tab.
Hydrochlorothiazide, oral tablet, 50 mg—$0.0194 per tab.

The Board originally identified these multiple source drugs as drugs for which significant amounts of Federal funds are expended and for which there are significantly different prices. The Food and Drug Administration has advised the Board that there is no regulatory action, either pending or under consideration, that would be a reason for delaying or withholding the establishment of MACs on the drugs listed above. In making the initial determination of the lowest unit price at which each of the drugs is widely and consistently available from any formulator or labeler, the Board relied on two sources; *Drug Topics Red Book* and a HCFA survey. *Drug Topics Red Book*, published annually and updated monthly, is an authoritative and recognized listing of advertised prices. The HCFA survey is a summary, updated monthly, of pharmacy invoice prices obtained by HCFA under contract with IMS America. The HCFA survey price is based on the 70th percentile of invoice prices from a panel of 1,000 pharmacies nationwide.

*1. Potassium Chloride, Oral Liquid, 10%*

The Board proposes a MAC limit of $0.0030 per ml based on a selling price of $1.45 per 480 ml package size.

The *Red Book* lists 18 suppliers who advertise this product at $1.45 or less per 480 ml package size. In addition, according to the HCFA survey, 50 percent of the invoices and 70 percent of the units of "the all other brands" are sold at or below the $0.0030 level. For this drug, "all other brands"; represents 14 percent of the invoice orders in the survey and 32 percent of the units. Small and medium size independents purchased the "all other brands" at or below the $0.0030 level.

*2. Fluocinolone Acetonide, Topical Solution, .01%*

The Board proposes a MAC level of $0.1043 per ml based on a selling price of $6.26 per 60 ml package size. This is the wholesale price of the only alternative source of supply, Marion Laboratories, (the 27th largest ethical drug firm). Marion currently supplies 13 percent of this market, by dollar volume, and their product is purchased by both small and medium size independent pharmacies at the $0.1043 level.

*3. Fluocinolone Acetonide, Topical Cream .01%*

The Board proposes a MAC level of $0.0712 per Gm based on a selling price of $4.27 per 60 Gm package size. This is the wholesale price of the only alternative source of supply, Marion Laboratories. Marion currently supplies 5 percent of this market, by dollar volume, and their product is purchased by both small and medium size independent pharmacies at the $0.0712 level.

*4. Fluocinolone Acetonide, Topical Cream .025%*

The Board proposes a MAC level of $0.2087 per Gm based on a selling price of $3.13 per 15 Gm package size. This is the wholesale price of the only alternative source of supply, Marion Laboratories. Marion currently supplies 3 percent of this market, by dollar volume, and their product is purchased by medium size pharmacies at the $0.2087 level.

*5. Griseofulvin, Microcrystalline, Oral Tablet, 500 mg*

The Board proposes a MAC level of $0.2818 per tablet based on a selling price of $16.91 per 60 tablet package size. This is the wholesale price for Ayerst (subsidiary of the 2nd largest ethical drug firm, American Home Products). Ayerst currently supplies 18 percent of this market, by dollar volume, and their product is purchased by both small and medium size independent pharmacies at or below the $0.2818 level.

*6. Methenamine Hippurate, Oral Tablet, 1 Gm*

The Board proposes a MAC level of $0.1453 per tablet based on a selling price of $14.53 per 100 tablet package size. This is the price at the 70th percentile of the only alternative supplier, Riker (the 33rd largest ethical drug firm, 3M). Riker currently supplies 28 percent of this market, by dollar volume, and their product is purchased by both small and medium size independent pharmacies at or below the $0.1453 level.

*7. Dicloxacillin Sodium, Oral Capsule, 250 mg*

The Board proposes a MAC level of $0.2215 per capsule based on a selling price of $22.15 per 100 capsule package size. This is the wholesale price of Beecham (a subsidiary of the 29th largest ethical drug firm, Beecham-Massengill). Beecham supplies approximately 5 percent of this market, by dollar volume, and their product is purchased by both small and medium independent pharmacies at or below the proposed MAC level.

*8. Dicloxacillin Sodium, Oral Suspension, 62.5 mg/5 ml*

The Board proposes a MAC level of $0.0236 per ml based on a selling price of $1.89 per 80 ml package size. This is the wholesale price of the only alternative supplier, Wyeth (subsidiary of the 2nd largest ethical drug firm). Wyeth currently supplies 9 percent of this market, by dollar volume, and their product is purchased by medium size independent pharmacies at the $0.0236 level.

*9. Quinidine Sulfate, Oral Tablet, 200 mg*

The Board proposes a MAC level of $0.0645 per tablet based on a selling price of $6.45 per 100 tablet package size. This is the price at the 80th percentile of the largest supplier of this product, Parke Davis (a subsidiary of the 7th largest ethical drug firm, Warner Lambert). Parke Davis currently supplies 59 percent of this market, by dollar volume, and their product is purchased by small and medium size pharmacies at the $0.0645 level.

*10. Hydrochlorothiazide, oral tablets, 25 and 50 mg.*—Final MAC limits on hydrochlorothiazide 25 and 50 mg tablets were effective on June 28, 1979 (see 44 FR 28104). Since that time, a number of lower prices have appeared in the marketplace, and in response, the Board has decided to consider new lower MAC limits on hydrochlorothiazide 25 and 50 mg tablets:

*Hydrochlorothiazide, oral tablet, 25 mg.*—The Board proposes a MAC level of $0.0152 per tablet based on a selling price of $1.52 per 100 tablet package size. This is the wholesale price of Smithkline (the 5th largest ethical drug firm). The *Red Book* lists an additional 23 suppliers below the $1.52 price. Smaller independent pharmacies have purchased this product at or below the $0.0152 level.

*Hydrochlorothiazide, oral tablet, 50 mg.*—The Board proposes a MAC level of $0.0194 per tablet based on a selling price of $1.94 per 100 tablet package size. This is the wholesale price of Smithkline. The *Red Book* lists 29 additional suppliers below the $1.94 price. Medium independent pharmacies have purchased this product at or below the proposed level.

The Board has been assured by Smithkline that they will be able to adequately supply those who wish to purchase these products from them.

The FDA advice and the economic data listed above are available for inspection in the office of Pharmaceutical and Medical Services Reimbursement Branch and a limited number of copies are available upon request.

Dated: January 8, 1980.

Charles S. Spalding,

*Acting Executive Secretary, Pharmaceutical Reimbursement Board.*

[FR Doc. 80-1809 Filed 1-18-80; 8:45 am]

BILLING CODE 4110-35-M

## National Institutes of Health

### Clinical Cancer Program Project Review Subcommittee; Amended Notice of Meeting, Change in Agenda

Notice is hereby given of a change in the agenda for the meeting of the Clinical Cancer Program Project Review Subcommittee, which will be held at the National Institutes of Health, Building 31C, Conference Room 6, Bethesda, Maryland, March 24–26, 1980. Notice of this meeting was published in the Federal Register on December 17, 1979 (44 FR 73163).

The meeting will be open to the public on March 24 from 8:30 a.m. to 10:00 a.m. to review administrative details, and again on March 24 from 4:00 p.m. to 5:00 p.m. to hold a seminar on research in hyperthermia. Attendance by the public will be limited to space available.

The meeting will be closed to the public on March 24 from 10:00 a.m. to 4:00 p.m. and on March 25–26 from 8:30 a.m. to adjournment each day, to review research grant applications as stated in the original notice.

For further information please contact Dr. Louise G. Thomson, Westwood Building, Room 809, National Institutes of Health, Bethesda, Maryland 20205 (301/496–7924).

Dated: January 11, 1980.

Suzanne L. Fremeau,

*Committee Management Officer, NIH.*

[FR Doc. 80-1810 Filed 1-18-80; 8:45 am]

BILLING CODE 4110-08-M

### National Advisory Allergy and Infectious Diseases Council; Amended Notice of Meeting

Notice is hereby given of a changes in the "open" and "closed" portions of the National Advisory Allergy and Infectious Diseases Council, National Institute of Allergy and Infectious Diseases, which was published in the Federal Register on December 26, 1979 (44 FR 76407).

On February 1, 1980 discussions will be open from 8:30 a.m. until 12:30 p.m. The meeting will be closed to the public from 12:30 p.m. until adjournment.

Dated: January 11, 1980.

(Catalog of Federal Domestic Assistance Program Nos. 13.855, 13.856, 13.857, National Institutes of Health)

Suzanne L. Fremeau,

*Committee Management Officer, NIH.*

[FR Doc. 80-1811 Filed 1-18-80; 8:45 am]

BILLING CODE 4110-08-M

### Endocrinology Study Section; Notice of Workshop

Notice is hereby given of a Workshop on Cell Biology and Endocrinology by the Endocrinology Study Section at the Vacation Village Hotel, San Diego, CA, March 20, 1980, from 1:00 p.m. to adjournment and March 21, 1980, from 9:00 a.m. to adjournment.

Further information may be obtained from Mr. Morris M. Graff, Executive Secretary, Endocrinology Study Section, Westwood Building, Room 333, telephone 301–496–7346.

This workshop will be open to the public. Attendance by the public will be limited to space available.

Dated: January 11, 1980.

Suzanne L. Fremeau,

*Committee Management Officer, NIH.*

[FR Doc. 80-1812 Filed 1-18-80; 8:45 am]

BILLING CODE 4110-08-M

## Office of Education

**AGENCY:** Office of Education, HEW.

**ACTION:** Closing Date for Transmittal of Applications.

**SUMMARY:** The closing date of January 28, 1980 for the transmittal of applications for grants under the Arts in Education program is withdrawn. The new closing date will be announced when the final regulations for that program are published in the Federal Register.

**SUPPLEMENTARY INFORMATION:** A proposed regulation for the Arts in Education Program was published in the Federal Register on June 18, 1979 (44 FR 35186). The Federal Register of August 23, 1979 (44 FR 49574) announced December 14, 1979 as the closing date for applications. A notice of extension of the closing date to January 28, 1980 was published in the Federal Register on November 7, 1979 (44 FR 64570).

While the Commissioner anticipates that the final regulations will be published in the near future, retention of the January 28 closing date is no longer reasonable. As a result, that closing date is withdrawn. A new notice of closing date will be published at the time the final regulations appear in the Federal Register. That notice will include instructions for submitting applications and program information.

The Commissioner expects that some changes will be made in the final regulations, including points allocated to the selection criteria in the area of program content (§ 161c.32(b)). Copies of the final regulations will be sent to all recipients of the application packet.

**FURTHER INFORMATION:** For further information contact Dr. Harold Arberg, Director, Arts and Humanities Staff, U.S. Office of Education, Room 3728, Donohoe Building, 400 Maryland Avenue, SW., Washington, D.C. 20202, Telephone: (202) 472–7793.

(20 US.C. 2961)

(Catalog of Federal Domestic Assistance Program No. 13.566, Arts Education Program)

Dated: January 14, 1980.

William L. Smith,

*U.S. Commissioner of Education.*

[FR Doc. 80–1786 Filed 1–18–80; 8:45 am]

BILLING CODE 4110–02–M

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

[INT FES 80–3]

### Proposed 5-Year Outer Continental Shelf Oil and Gas Lease Sale Schedule; Availability of Final Environmental Statement

Pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969, the Department of the Interior has completed a final environmental statement relating to a proposed Five-Year Outer Continental Shelf Oil and Gas Lease Sale Schedule, prepared in accordance with Section 18 of the Outer Continental Shelf Lands Act, as amended (92 Stat. 632).

Single copies of the final environmental statement can be obtained from the Office of the Manager, New York Outer Continental Shelf Office, Bureau of Land Management, 26 Federal Plaza, Suite 32–120, New York, New York 10007; Office of the Manager, New Orleans Outer Continental Shelf Office, Bureau of Land Management, Hale Boggs Federal Building, Suite 841, 500 Camp Street, New Orleans, Louisiana 70130; Office of the Manager, Pacific Outer Continental Shelf Office, Bureau of Land Management, 1340 W. Sixth Street, Room 200, Los Angeles, California 90017; Office of Manager, Alaska Outer Continental Shelf Office, Bureau of Land Management, P.O. Box 1159, Anchorage, Alaska 99510, and from the Office of Public Affairs, Bureau of Land Management (130), Washington, D.C. 20240.

Copies of the final environmental statement will also be available for review in public libraries located throughout the coastal States. Information regarding the location of libraries where copies of the statement will be available may be obtained from the OCS Offices listed above.

Ed Hastey,

*Associate Director, Bureau of Land Management.*

Approved:

Heather L. Ross,

*Deputy Assistant Secretary of the Interior.*

[FR Doc. 80–1819 Filed 1–18–80; 8:45 am]

BILLING CODE 4310–84–M

### Fish and Wildlife Service

### Availability of a Draft Environmental Impact Statement on a Proposed National Wildlife Refuge on the Currituck Outer Banks, Currituck County, N.C.

*Correction*

In FR Doc. 80–38 appearing on page 845, in the issue of January 3, 1980, make the following correction,

On page 846, column 1, the third line from the bottom should have read: "would be $100,100,000."

On page 846, column 2, line 17 should have read: "benefits to the biological resource".

BILLING CODE 1505–01–M

### Geological Survey

### National Earthquake Prediction Evaluation Council

Pursuant to Pub. L. 92–463, effective January 5, 1973, notice is hereby given that a meeting of the National Earthquake Prediction Evaluation Council (Prediction Council) will be held February 4 and 5, 1980 beginning at 8:30 a.m. each day. The Prediction Council will meet in Rm. BA102, U.S. Geological Survey (USGS), National Center, 12201 Sunrise Valley Drive, Reston, Virginia 22092.

(1) *Purpose.* The Prediction Council was established to advise the Directors, USGS, in deciding when and/or whether to issue predictions or other information pertinent to the potential for the occurrence of a future significant earthquake (e.g., negative evaluations or advisories).

(2) *Membership.* The Prediction Council is chaired by Dr. Clarence R. Allen and is composed of persons who are experts in scientific disciplines related to the field of earthquake prediction. Half of the membership is drawn primarily from the academic community; the other half from the rolls of the USGS.

(3) *Agenda.* (a) Discussion of operating procedures as contained in the committee charter and consideration of need for any additional rules to assure objectivity in issuing predictions.

(b) Review of information concerning potential for large earthquakes in California and Alaska.

H. William Menard,

*Director, U.S. Geological Survey.*

[FR Doc. 80–1831 Filed 1–18–80; 8:45 am]

BILLING CODE 4310–01–M

### Office of the Secretary

### Fair Market Value for Federal Coal Leases

**AGENCY:** Office of the Assistant Secretary—Land and Water Resources, Interior.

**ACTION:** Notice of Availability of the *Final Report and Recommendations for the Secretary on Fair Market Value and Minimum Acceptable Bids for Federal Coal Leases.*

**SUMMARY:** Notice is hereby given of the availability for public review of the *Final Report and Recommendations for the Secretary on Fair Market Value and Minimum Acceptable Bids for Federal Coal Leases.* Copies of this report can be obtained from the Office of Coal Leasing, Planning and Coordination in Washington, D.C., through February 29, 1980, at the address shown below. On that date the report in its current or amended form will undergo final policy review in the Department of the Interior prior to final Secretarial action on a new policy that will govern the Department's evaluation of Federal coal tracts for leasing, exchange, or other related purposes.

The major recommendations to the Secretary include:

1. Small Federal coal tracts (application tracts) and large, competitive tracts should be evaluated under different systems, principally in order to maximize net return to the Federal Government.

2. Large Federal coal tracts should continue to be evaluated using discounted cash flow (DCF) analysis; however, the DCF analysis should be used more conservatively in order to account for uncertainties attendant to coal development and projections of future markets. The major change to ensure a conservative DCF estimate of value should be the use of a coal price in the model representative of that expected from long-term, competitive

coal contracts. Adjustments for inflation in the tax accounting portion of the DCF model and the use of varying discount rates in the evaluation are also recommended. Comparable sales analyses should also be prepared for large tract evaluations by persons trained in mineral appraisals. The minimum acceptable bid should be set at the higher of the DCF or the comparable sales estimate of value, and used for the acceptance of bids as long as statutory and policy minimums on royalty and bonus bids are also realized.

3. Minimum acceptable bids for small tracts should be set at regional minimum levels to ensure receipt of fair market value. Initially, minimum statutory and policy levels would be used. A continuing region-wide appraisal of coal fair market value must be maintained to ensure the Secretary of receipt of fair market value.

4. The task force made five specific recommendations aimed at improving competition in Federal coal lease sales. These were (1) to study the use of a profit sharing system that would lessen the need to collect Federal revenues from coal lease sales via the use of high pre-sale minimum acceptable bids; (2) to proceed with a trial effort at pre-sale tract unitization of a mixed Federal and other ownership logical mining unit; (3) to consider changes in the manner in which sales are conducted to increase bidder participation; (4) to consider means to reduce the size of initial lessee payments; and (5) to release information on evaluation procedures, the data used in evaluation, and minimum acceptable bids in order to increase the bidders' knowledge of the physical and economic conditions of the tract.

The task force also amplified on the draft recommendations on fair market value considered by the Secretary in forming his decisions on the Federal coal management program in June 1979.

**ADDRESS:** Copies of this report will be available for review from: Director, Office of Coal Leasing, Planning and Coordination, Room 3411, Main Interior Building, 18th & C Streets, N.W., Washington, D.C. 20240. Phone (202) 343-4191.

**FOR FURTHER INFORMATION CONTACT:** Charles Rech or Pat Geehan, Office of Coal Leasing, Planning and Coordination, (202) 343-4191.

Dated: January 15, 1980.

Guy R. Martin,

*Assistant Secretary—Land and Water Resources.*

[FR Doc. 80-1820 Filed 1-18-80; 8:45 am]

BILLING CODE 4310-01-M

## METRIC BOARD

### Public Forum

Notice is hereby given that the United States Metric Board will hold a Public Forum on Thursday, February 14, 1980, from 9 a.m. to 12:30 p.m. The Forum will be held in conjunction with the Metric Board's regular February meeting. Notice of the regular meeting appears in the Sunshine Meeting section of this issue. The Forum will be held at the Del Webb's Townehouse, Phoenix, Arizona 85013 in the Kino Room.

The purpose of the Forum will be to allow Board Members to receive comments about increased metric usage and voluntary metric conversion from individuals and from representatives of groups or organizations. The public is invited and encouraged to provide oral or written comments and ask questions of the Board from 11 a.m. to 12:30 p.m. Those who wish to participate may also submit comments or questions in advance to Mr. William DeReuter, Office of Public Awareness and Education, United States Metric Board, The Magazine Building, 1815 North Lynn Street, Suite 600, Arlington, Virginia 22209.

Louis Polk,

*Chairman, United States Metric Board.*

[FR Doc. 80-2007 Filed 1-18-80; 8:45 am]

BILLING CODE 6820-94-M

## NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

### Humanities Panel Advisory Committee; Meetings

January 14, 1980.

Pursuant to the provisions of the Federal Advisory Committee Act (Pub. L. 92-463, as amended), notice is hereby given that the following meetings of the Humanities Panel will be held at 806 15th Street, N.W., Washington, D.C. 20506:

1. Date: February 4, 1980. (Formerly February 4 and 5, 1980.)
Time: 9 a.m. to 5:30 p.m.
Room: 807.
Purpose: To review the applications submitted to the Research Tools Program of the National Endowment for the Humanities, for projects in music, theater, and film beginning June 1, 1980.

2. Date: February 20, 1980.
Time: 9 a.m. to 5:30 p.m.
Room: 1134.
Purpose: To review Research Collections applications for National Archival projects submitted to the National Endowment for the Humanities for projects beginning after July 1, 1980.

3. Date: February 25 and 26, 1980.
Time: 9 a.m. to 5:30 p.m.
Room: 807.
Purpose: To review the applications submitted to the Research Tools Program of the National Endowment for the Humanities, for projects in Lexicography and Linguistics beginning June 1, 1980.

4. Date: February 27, 1980.
Time: 9 a.m. to 5:30 p.m.
Room: 1134.
Purpose: To review Research Collections applications for Regional Archival projects submitted to the National Endowment for the Humanities for projects beginning after July 1, 1980.

5. Date: February 28 and 29, 1980.
Time: 9 a.m. to 5:30 p.m.
Room: 807.
Purpose: To review the applications submitted to the Research Tools Program of the National Endowment for the Humanities, for projects in Social Science and Philosophy beginning June 1, 1980.

Because the proposed meetings will consider financial information and disclose information of a personal nature the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, pursuant to authority granted me by the Chairman's Delegation of Authority to Close Advisory Committee Meetings, dated January 15, 1979, I have determined that the meetings would fall within exemptions (4) and (6) of 5 U.S.C. 552b(c) and that it is essential to close these meetings to protect the free exchange of internal views and to avoid interference with operation of the Committee.

If you desire more specific information, contact the Advisory Committee Management Officer, Mr. Stephen J. McCleary, 806 15th Street, N.W., Washington, D.C. 20506, or call 202-724-0367.

Stephen J. McCleary,

*Advisory Committee Management Officer.*

[FR Doc. 80-1841 Filed 1-18-80; 8:45 am]

BILLING CODE 7536-01-M

## OFFICE OF MANAGEMENT AND BUDGET

### Agency Forms Under Review

January 16, 1980.

#### Background

When executive departments and agencies propose public use forms, reporting, or recordkeeping requirements, the Office of Management and Budget (OMB) reviews and acts on those requirements under the Federal Reports Act (44 USC, Chapter 35). Departments and agencies use a number of techniques including public hearings to consult with the public on significant reporting requirements before seeking OMB approval. OMB in carrying out its

responsibility under the Act also considers comments on the forms and recordkeeping requirements that will affect the public.

List of Forms Under Review

Every Monday and Thursday OMB publishes a list of the agency forms received for review since the last list was published. The list has all the entries for one agency together and group into new forms, revisions, extensions, or reinstatements. Some forms listed as revisions may only have a change in the number of respondents or a reestimate of the time needed to fill them out rather than any change to the content of the form. The agency clearance officer can tell you the nature of any particular revision you are interested in. Each entry contains the following information:

The name and telephone number of the agency clearance officer (from whom a copy of the form and supporting documents is available);

The office of the agency issuing this form;

The title of the form;

The agency form number, if applicable;

How often the form must be filled out;

Who will be required or asked to report;

An estimate of the number of forms that will be filled out;

An estimate of the total number of hours needed to fill out the forms; and

The name and telephone number of the person or office responsible for OMB review.

Reporting or recordkeeping requirements that appear to raise no significant issues are approved promptly. Our usual practice is not to take any action on proposed reporting requirements until at least ten working days after notice in the Federal Register but occasionally the public interest requires more rapid action.

Comments and Questions

Copies of the proposed forms and supporting documents may be obtained from the agency clearance officer whose name and telephone number appear under the agency name. The agency clearance officer will send you a copy of the proposed form, the request for clearance (SF83), supporting statement, instructions, transmittal letters, and other documents that are submitted to OMB for review. If you experience difficulty in obtaining the information you need in reasonable time, please advise the OMB reviewer to whom the report is assigned. Comments and questions about the item on this list should be directed to the OMB reviewer or office listed at the end of each entry.

If you anticipate commenting on a form but find that time to prepare will prevent you from submitting comments promptly, you should advise the reviewer of your intent as early as possible.

The timing and format of this notice have been changed to make the publication of the notice predictable and to give a clearer explanation of this process to the public. If you have comments and suggestions for future improvements to this notice, please send them to Stanley F. Morris, Deputy Associate Director for Regulatory Policy and Reports Management, Office of Management and Budget, 726 Jackson Place, Northwest, Washington, D.C. 20503

DEPARTMENT OF COMMERCE

Agency Clearance Officer—Edward Michals—377-3627

*Revisions*

National Oceanic and Atmospheric Administration
Public Weather Requirements Survey Plan
Single time
Households in the SMSA's, 2,000 responses; 600 hours
Richard Sheppard, 395-3211.

DEPARTMENT OF ENERGY

Agency Clearance Officer—John Gross—633-9118

*New Forms*

Plant Reporting Form
CS-189-P (Formerly FEA-0524-P-O)
Annually
Plants of corporation that used over 1 trillion Btu's, 14,456 responses; 607,152 hours
Jefferson B. Hill, 395-5867.

Sponsor Reporting Form
CS-189-S (Formerly FEA-0524-P-O)
Annually
Sponsors of corps. that used over 1 trillion Btu's of energy, 75 responses; 12,750 hours
Jefferson B. Hill, 395-5867.

Corporate Reporting Form
CS-189-C (Formerly FEA-0524-P-O)
Annually
Corps. that used over 1 trillion Btu's energy, 1,111 responses; 122,210 hours
Jefferson B. Hill, 395-5867.

*Revisions*

Distribution of Bituminous, Subbituminous, and Lignite Coal
EIA-6
Quarterly
Distributors of over 50,000 tons of bit., subbit., and lig., 5,600 responses; 14,000 hours
Jefferson B. Hill, 395-5867.

Data Gathering Provisions for Final Regulations for Transitional Facilities
ERA-300F, 300B, 300C, and 300R
On occasion
Transitional MFBI's and powerplants, 30 responses; 960 hours
Jefferson B. Hill, 395-5867.

Survey of Fuel Oil Dealers—Retail/Wholesale
FIA-B1156, 1157, 1158, and 1159
Monthly
Retail/wholesale fuel oil dealers, 60,000 responses; 34,980 hours
Jefferson B. Hill, 395-5867.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Agency Clearance Office—William Riley—245-6511

*New Forms*

Center for Disease Control
Sex Education Projects
Single time
Description not furnished by agency
Richard Eisinger, 395-3214.

Public Health Service
National Blood Data Center Annual Census
Annually
All blood banks in the U.S., 7,000 responses; 5,250 hours
Off. of Federal Statistical Policy & Standard, 673-7974

*Revisions*

Health Resources Administration
Record of Capital Expenditure Reviews
HRA-5 (Revised), HRA-47
Other (see SF-83)
State health planning and development agencies, 6,000 responses; 2,400 hours
Richard Eisinger, 395-3214.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Agency Clearance Officer—Robert G. Masarsky—755-5184

*New Forms*

Housing Production and Mortgage Credit
Mortgagee Approval Forms
92001, A, B, C, D, E & K
Single time
Mortgage companies, 18,000 responses; 6,000 hours
Arnold Strasser, 395-5080.

*Extensions*

Policy Development and Research
Survey Questionnaire for HUD Residential Solar Heating and Cooling Demonstration Program

Other (see SF–83)
HUD demo participants, 900 responses; 950 hours
Arnold Strasser, 395–5080.

DEPARTMENT OF JUSTICE

Agency Clearance Officer—Donald E. Lafue—633–3526

*Reinstatements*

Drug Enforcement Administration
Registrant Inventory of Drugs Surrendered
Lass of Controled Substances
DEA 41
On Occasion
Registrants under the controlled substance Act, 20,000 responses, 10,000 hours
Laverne V. Collins, 395–3214.

DEPARTMENT OF LABOR

Agency Clearance Officer—Philip M. Oliver—523–6341

*New Forms*

Employment and Training Administration
Research on the Food Stamp Workfare Demonstration project
MT–303
Single time
Food stamp work registrants, 2,000 responses; 1,500 hours
Charles A. Filett, 395–5080.

FEDERAL EMERGENCY MANAGEMENT AGENCY

Agency Clearance Officer—Linda Shiley—254–9515

*New Forms*

Payment Activities Under the Disaster Relief Act of 1974
90–2
Weekley
State employment security agencies in disaster States, 600 responses; 600 hours
Edward H. Clarke, 395–5867.

TENNESSEE VALLEY AUTHORITY

Agency Clearance Officer—Eugene E. Mynatt—854–2596

*New Forms*

Senior Citizens Counseling Program Information Form
On occasion
Senior Citizens in Nashville/Davidson County, TN; 1,050 responses; 490 hours
Charles A. Filett, 395–5080.

U.S. METRIC BOARD

Agency Clearance Officer—Stanley R. Parent—235–2583

*New Forms*

U.S. Metric Board Survey of Small Businesses
Single time
Chief executive of selected firm, 2,500 responsees; 950 hours
Laverne V. Collins, 395–3214.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Agency Clearance Officer—Charles Ervin—523–0267

*New Forms*

Importers' Questionnaire Valves and Parts From Japan [1] and Italy (Inv. 701–TA–4 & 5)
Single time
Importers, 32 responses; 320 hours
Marsha D. Traynham, 395–6140.

Producers' Questionnaire Valves and Parts From Japan [1] and Italy (Inv. 701–TA–4 & 5)
Single time
Producers of valves and parts, 38 responses; 380 hours
Marsha D. Traynham, 395–6140.

Stanley E. Morris,

*Deputy Associate Director for Regulatory Policy and Reports Management.*

[FR Doc 80–1865 Filed 1–18–80; 8:45 am]

BILLING CODE 3110–01–M

[1] These reports will be acted on before normal 10-day period. The clearance of these questionnaires on an expedited basis is necessary in order for the International Trade Commission to complete its investigation concerning valves and parts from Japan and Italy within the statutory time limits.

## Cumulative Report on Rescissions and Deferrals

January 1, 1980.

This report is submitted in fulfillment of the requirements of Section 1014(e) of the Impoundment Control Act of 1974 (Public law 93–344). Section 1014(e) provides for a monthly report listing all budget authority for this fiscal year with respect to which, as of the first day of the month, a special message has been transmitted to the Congress.

This report gives the status as of January 1, 1980 of one rescission proposal and 40 deferrals contained in the first three special messages of fiscal year 1980. These message were transmitted to the Congress on October 1, November 15, and December 26, 1979.

### Rescission (Attachment A)

As of January 1, 1980, no rescission proposals were pending before the Congress.

### Deferrals (Table A and Attachment B)

As of January 1, 1980, $671.6 million in 1980 budget authority was being deferred from obligation and another $44 thousand in 1980 obligations was being deferred from expenditure. Table A summarizes the status of deferrals reported by the President, and Attachment B shows the history and status of each deferral reported during fiscal year 1980.

### Information From Special Messages

The special messages containing information on the rescission and the deferrals covered by the cumulative report are printed in the Federal Registers of:

Friday, October 5, 1979 (Vol. 44, No. 195, Part IX).
Tuesday, November 20, 1979 (Vol. 44, No. 225, Part III).
Monday. December 31, 1979 (Vol. 44, No. 251, Part VII).

**Table A—Status of 1980 Deferrals**

(In millions of dollars) [1]

| | Amount |
|---|---|
| Deferrals proposed by the President | $1,592.3 |
| Routine Executive release (−$533.2 million) and adjustment (−$387.5 million) through January 1, 1980 | −920.7 |
| Overturned by the Congress | |
| Currently before the Congress | [2]671.1 |

[1] Detail does not add due to rounding.
[2] This amount includes $44 thousand in outlays for a Department of the Treasury deferral (D80–23).

BILLING CODE 3110–01–M

| AS OF JAN. 1, 1980 AMOUNTS IN THOUSANDS OF DOLLARS AGENCY/BUREAU/ACCOUNT | RESCISSION NUMBER | AMOUNT PREVIOUSLY CONSIDERED BY CONGRESS | AMOUNT CURRENTLY BEFORE THE CONGRESS | DATE OF MESSAGE MO DA YR | AMOUNT RESCINDED | AMOUNT MADE AVAILABLE | DATE MADE AVAILABLE MO DA YR |
|---|---|---|---|---|---|---|---|
| OTHER INDEPENDENT AGENCIES | | | | | | | |
| International Communication Agency | | | | | | | |
| Special international exhibitions BA | R80- 1 | 114 | | 10 1 79 | | 114 | 11 15 79 |

END OF REPORT

PAGE 1 ATTACHMENT B - STATUS OF DEFERRALS - FISCAL YEAR 1980 AS OF 01/05/80 16:33

| AMOUNTS IN THOUSANDS OF DOLLARS<br>AGENCY/BUREAU/ACCOUNT | | DEFERRAL NUMBER | AMOUNT TRANSMITTED ORIGINAL REQUEST | AMOUNT TRANSMITTED SUBSEQUENT CHANGE | | DATE OF MESSAGE MO DA YR | CUMULATIVE OMB /AGENCY RELEASES | CONGRESSIONALLY REQUIRED RELEASES | CUMULATIVE ADJUSTMENTS | AMOUNT DEFERRED AS OF 01-01-80 |
|---|---|---|---|---|---|---|---|---|---|---|
| FUNDS APPROPRIATED TO THE PRESIDENT | | | | | | | | | | |
| International Security Assistance | | | | | | | | | | |
| Economic support fund | BA | D80- 1 | 100,000 | | | 10 1 79 | | | | 100,000 |
| DEPARTMENT OF AGRICULTURE | | | | | | | | | | |
| Forest Service | | | | | | | | | | |
| Timber salvage sales | BA | D80- 2 | 9,298 | | | 10 1 79 | | | | 9,298 |
| Expenses, brush disposal | BA | D80- 3 | 32,060 | | | 10 1 79 | | | | 32,060 |
| Restoration of forest lands | BA | D80- 4 | 38 | | | 10 1 79 | | | | 38 |
| DEPARTMENT OF AGRICULTURE TOTAL | BA | | 41,396 | | | | | | | 41,396 |
| DEPARTMENT OF COMMERCE | | | | | | | | | | |
| National Oceanic and Atmospheric Administration | | | | | | | | | | |
| Construction | BA | D80- 5 | 7,000 | | | 10 1 79 | | | | 7,000 |
| Coastal zone management | BA | D80- 6 | 20,000 | | | 10 1 79 | | | | |
| | BA | D80- 6A | | | a | 11 15 79 | | | | 20,000 |
| Promote and develop fishery products and research | BA | D80- 7 | 2,400 | | | 10 1 79 | -2,400 | | | |
| Fisheries loan fund | BA | D80- 8 | 5,300 | | | 10 1 79 | -93 | | | 5,207 |

| AMOUNTS IN THOUSANDS OF DOLLARS<br>AGENCY/BUREAU/ACCOUNT | DEFERRAL NUMBER | AMOUNT TRANSMITTED ORIGINAL REQUEST | AMOUNT TRANSMITTED SUBSEQUENT CHANGE | DATE OF MESSAGE MO DA YR | CUMULATIVE OMB /AGENCY RELEASES | CONGRESSIONALLY REQUIRED RELEASES | CUMULATIVE ADJUSTMENTS | AMOUNT DEFERRED AS OF 01-01-80 |
|---|---|---|---|---|---|---|---|---|
| DEPARTMENT OF COMMERCE | | | | | | | | |
| TOTAL BA | | 34,700 | | | -2,493 | | | 32,207 |
| DEPARTMENT OF DEFENSE-MILITARY | | | | | | | | |
| Military Construction | | | | | | | | |
| Military construction, all services | | | | | | | | |
| BA | D80- 9 | 31,386 | | 10 1 79 | -18,270 | | | 13,116 |
| DEPARTMENT OF DEFENSE-CIVIL | | | | | | | | |
| Wildlife Conservation, Military Reservations | | | | | | | | |
| Wildlife conservation, all services | | | | | | | | |
| BA | D80-10 | 595 | | 10 1 79 | | | | |
| BA | D80-10A | | 114 | 12 26 79 | | | | 709 |
| DEPARTMENT OF ENERGY | | | | | | | | |
| Energy Programs | | | | | | | | |
| Fossil energy construction | | | | | | | | |
| BA | D80-11 | 50,000 | | 10 1 79 | | | | 50,000 |
| DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE | | | | | | | | |
| Alcohol, Drug Abuse & Mental Health Administration | | | | | | | | |
| Construction & renovation, St. Elizabeths Hospital | | | | | | | | |
| BA | D80-12 | 23,314 | | 10 1 79 | | | | 23,314 |
| Human Development Services | | | | | | | | |
| White House Conferences on Aging and Families | | | | | | | | |
| BA | D80-13 | 4,649 | | 10 1 79 | | | | 4,649 |
| DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE | | | | | | | | |
| TOTAL BA | | 27,963 | | | | | | 27,963 |

| AMOUNTS IN THOUSANDS OF DOLLARS<br>AGENCY/BUREAU/ACCOUNT | DEFERRAL NUMBER | AMOUNT TRANSMITTED ORIGINAL REQUEST | AMOUNT TRANSMITTED SUBSEQUENT CHANGE | DATE OF MESSAGE MO DA YR | CUMULATIVE OMB /AGENCY RELEASES | CONGRESSIONALLY REQUIRED RELEASES | CUMULATIVE ADJUSTMENTS | AMOUNT DEFERRED AS OF 01-01-80 |
|---|---|---|---|---|---|---|---|---|
| DEPARTMENT OF THE INTERIOR | | | | | | | | |
| Heritage Conservation and Recreation Service | | | | | | | | |
| Land and water conservation fund | | | | | | | | |
| BA | D80-14 | 30,000 | | 10 1 79 | | | | 30,000 |
| Geological Survey | | | | | | | | |
| Payments from proceeds, sale of water | | | | | | | | |
| BA | D80-15 | 39 | | 10 1 79 | | | | 39 |
| Bureau of Mines | | | | | | | | |
| Drainage of anthracite mines | | | | | | | | |
| BA | D80-16 | 1,137 | | 10 1 79 | | | | 1,137 |
| DEPARTMENT OF THE INTERIOR TOTAL BA | | 31,176 | | | | | | 31,176 |
| DEPARTMENT OF JUSTICE | | | | | | | | |
| Federal Prison System | | | | | | | | |
| Buildings and facilities | | | | | | | | |
| BA | D80-17 | 22,853 | | 10 1 79 | | | | |
| BA | D80-17A | | 14,888 | 11 15 79 | | | | 37,741 |
| DEPARTMENT OF STATE | | | | | | | | |
| International Organizations and Conferences | | | | | | | | |
| Contributions to intl peacekeeping activities | | | | | | | | |
| BA | D80-32 | 10,000 | | 11 15 79 | | | | 10,000 |
| Other | | | | | | | | |
| Emergency refugee and migration assistance fund | | | | | | | | |
| BA | D80-18 | 5,650 | | 10 1 79 | -8,000 | | 5,582 | 3,232 |
| DEPARTMENT OF STATE TOTAL BA | | 15,650 | | | -8,000 | | 5,582 | 13,232 |

| AMOUNTS IN THOUSANDS OF DOLLARS<br>AGENCY/BUREAU/ACCOUNT | | DEFERRAL NUMBER | AMOUNT TRANSMITTED ORIGINAL REQUEST | AMOUNT TRANSMITTED SUBSEQUENT CHANGE | DATE OF MESSAGE MO DA YR | CUMULATIVE OMB /AGENCY RELEASES | CONGRESSIONALLY REQUIRED RELEASES | CUMULATIVE ADJUSTMENTS | AMOUNT DEFERRED AS OF 01-01-80 |
|---|---|---|---|---|---|---|---|---|---|
| DEPARTMENT OF TRANSPORTATION | | | | | | | | | |
| Federal Aviation Administration | | | | | | | | | |
| Civil supersonic aircraft development termination | BA | D80-19 | 5,004 | | 10 1 79 | -5,000 | | | 4 |
| Facilities & equip. (Airport & airway trust fund) | BA | D80-20 | 138,211 | | 10 1 79 | | | | 138,211 |
| Federal Highway Administration | | | | | | | | | |
| Federal aid highways | BA | D80-33 | 495,789 | | 11 15 79 | -495,789 | | | |
| Urban Mass Transportation Administration | | | | | | | | | |
| Urban mass transportation fund | BA | D80-21 | 393,076 | | 10 1 79 | | | -393,076b | |
| DEPARTMENT OF TRANSPORTATION TOTAL | BA | | 1,032,080 | | | -500,789 | | -393,076 | 138,215 |
| DEPARTMENT OF THE TREASURY | | | | | | | | | |
| Office of the Secretary | | | | | | | | | |
| Investment in national consumer cooperative bank | BA | D80-38 | 12,550 | | 12 26 79 | | | | 12,550 |
| Office of Revenue Sharing | | | | | | | | | |
| State and local government fiscal assistance fund | BA | D80-22 | 79,548 | | 10 1 79 | | | | |
| | BA | D80-22A | | 34,245 | 12 26 79 | | | | 113,793 |
| | 0 | D80-23 | 2,735 | | 10 1 79 | -2,691 | | | 44 |
| Bureau of the Mint | | | | | | | | | |
| Construction of mint facilities | BA | D80-24 | 3,230 | | 10 1 79 | | | | 3,230 |

| AMOUNTS IN THOUSANDS OF DOLLARS<br>AGENCY/BUREAU/ACCOUNT | DEFERRAL NUMBER | AMOUNT TRANSMITTED ORIGINAL REQUEST | AMOUNT TRANSMITTED SUBSEQUENT CHANGE | DATE OF MESSAGE MO DA YR | CUMULATIVE OMB /AGENCY RELEASES | CONGRESSIONALLY REQUIRED RELEASES | CUMULATIVE ADJUSTMENTS | AMOUNT DEFERRED AS OF 01-01-80 |
|---|---|---|---|---|---|---|---|---|
| DEPARTMENT OF THE TREASURY | | | | | | | | |
| TOTAL BA | | 95,328 | 34,245 | | | | | 129,573 |
| TOTAL O | | 2,735 | | | -2,691 | | | 44 |
| OTHER INDEPENDENT AGENCIES | | | | | | | | |
| District of Columbia | | | | | | | | |
| Loans for capital outlay | | | | | | | | |
| BA | D80-39 | 8,130 | | 12 26 79 | | | | 8,130 |
| Federal Emergency Management Agency | | | | | | | | |
| Emergency planning, preparedness, and mobilization | | | | | | | | |
| BA | D80-25 | 80 | | 10 1 79 | | | | 80 |
| Foreign Claims Settlement Commission | | | | | | | | |
| Payment of Vietnam prisoner of war claims | | | | | | | | |
| BA | D80-26 | 1,800 | | 10 1 79 | -940 | | | 860 |
| International Communication Agency | | | | | | | | |
| Salaries & expenses | | | | | | | | |
| BA | D80-34 | 2,000 | | 11 15 79 | | | | 2,000 |
| Special foreign currency program | | | | | | | | |
| BA | D80-35 | 1,600 | | 11 15 79 | | | | 1,600 |
| Acquisition & construction of radio facilities | | | | | | | | |
| BA | D80-27 | 10,973 | | 10 1 79 | | | | 10,973 |
| National Consumer Cooperative Bank | | | | | | | | |
| Self-help development fund | | | | | | | | |
| BA | D80-40 | 8,000 | | 12 26 79 | | | | 8,000 |
| Railroad Retirement Board | | | | | | | | |
| Regional rail transportation protective account | | | | | | | | |
| BA | D80-36 | 1,000 | | 11 15 79 | | | | 1,000 |
| National Alcohol Fuels Commission | | | | | | | | |
| Salaries and expenses | | | | | | | | |
| BA | D80-28 | 250 | | 10 1 79 | | | | 250 |

| AMOUNTS IN THOUSANDS OF DOLLARS<br>AGENCY/BUREAU/ACCOUNT | | DEFERRAL NUMBER | AMOUNT TRANSMITTED ORIGINAL REQUEST | AMOUNT TRANSMITTED SUBSEQUENT CHANGE | DATE OF MESSAGE MO DA YR | CUMULATIVE OMB /AGENCY RELEASES | CONGRESSIONALLY REQUIRED RELEASES | CUMULATIVE ADJUSTMENTS | AMOUNT DEFERRED AS OF 01-01-80 |
|---|---|---|---|---|---|---|---|---|---|
| National Commission on Social Security | | | | | | | | | |
| Salaries and expenses | BA | D80-29 | 250 | | 10 1 79 | | | | |
| | BA | D80-29A | | 145 | 12 26 79 | | | | 395 |
| Navajo & Hopi Indian Relocation Commission | | | | | | | | | |
| Salaries and expenses | BA | D80-30 | 5,300 | | 10 1 79 | | | | 5,300 |
| President s Commission on Pension Policy | | | | | | | | | |
| Salaries and expenses | BA | D80-37 | 700 | | 11 15 79 | | | | 700 |
| Tennessee Valley Authority | | | | | | | | | |
| Tennessee Valley Authority fund | BA | D80-31 | 17,000 | | 10 1 79 | | | | 17,000 |
| OTHER INDEPENDENT AGENCIES TOTAL | BA | | 57,083 | 145 | | -940 | | | 56,288 |
| TOTAL | BA | | 1,540,210 | 49,392 | | -530,492 | | -387,494 | 671,616 |
| TOTAL | O | | 2,735 | | | -2,691 | | | 44 |

FOOTNOTES

a. This supplemental report was transmitted solely to expand the application of this deferral to include funds appropriated in FY 1980 as well as balances carried forward from previous years.

b. Congressional action on the 1980 Transportation and Related Agencies Appropriation Bill (P.L.96-131) rescinded these funds.

[FR Doc. 80-1435 Filed 1-18-80; 8:45 am]
BILLING CODE 3110-01-C

## SECURITIES AND EXCHANGE COMMISSION

[Release No. 16483; SR-Amex-79-19]

### American Stock Exchange, Inc.; Order Approving Proposed Rule Change

January 11, 1980.

On November 1, 1979, the American Stock Exchange, Inc., 86 Trinity Place, New York, New York 10006, filed with the Commission, pursuant to section 19(b)(1) of the Securities Exchange Act of 1934, 15 U.S.C. 78(s)(b)(1) (the "Act") and Rule 19b-4 thereunder, copies of a proposed rule change which amends Amex Rule 959, Commentary .01, to delete a requirement that closing sell orders in options which have been placed in the cabinet and which cannot be immediately executed must be filed in time sequence with any order to sell at ⅛ in the regular-way auction market.

Notice of the proposed rule change together with the terms of substance of the proposed rule change was given by publication of a Commission Release (Securities Exchange Act Release No. 16334, November 9, 1979) and by publication in the Federal Register (44 FR 65844, November 15, 1979). All written statements with respect to the proposed rule change which were filed with the Commission and all written communications relating to the proposed rule change between the Commission and any person were considered and (with the exception of those statements or communications which may be withheld from the public in accordance with the provisions of 5 U.S.C. 552) were made available to the public at the Commission's Public Reference Room.

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange and in particular, the requirements of Section 6 and the rules and regulations thereunder.

It is therefore ordered, pursuant to section 19(b)(2) of the Act, that the above-mentioned proposed rule change be, and it hereby is, approved.

For the Commission, by the Division of Market Regulation pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1777 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

[Release No. 16484; SR-CBOE-78-4]

### Chicago Board Options Exchange, Inc.; Order Approving Proposed Rule Change

January 11, 1980.

On February 16, 1978, the Chicago Board Options Exchange, Incorporated ("CBOE"), 141 West Jackson Street, Chicago, Illinois 60604, filed with the Commission, pursuant to section 19(b)(1) of the Securities Exchange Act of 1934, 15 U.S.C. 78(s)(b)(1) (the "Act") and Rule 19b-4 thereunder, copies of a proposed rule change to: (1) amend CBOE Rule 6.2 to require a Board Broker or Order Book Official to alternate the opening of put and call series on the same underlying security unless otherwise permitted by approval of Floor Officials or directed by the Floor Procedure Committee; (2) to amend CBOE Rule 6.54, Interpretations and Policies .01 to revise the procedures applicable to accommodation liquidations; and (3) to amend CBOE Rule 7.7, Interpretations and Policies .01 to require Board Brokers and Order Book Officials to display the full size of a bid or offer up to 999 contracts.

Notice of the proposed rule change together with the terms of substance of the proposed rule change was given by publication of a Commission Release (Securities Exchange Act Release No. 34-14518, March 2, 1978), and by publication in the Federal Register (43 FR 9670, March 9, 1978). All written statements with respect to the proposed rule change which were filed with the Commission and all written communications relating to the proposed rule change between the Commission and any person were considered and (with the exception of those statements or communications which may be withheld from the public in accordance with the provisions of 5 U.S.C. 552) were made available to the public at the Commission's Public Reference Room.

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange and in particular, the requirements of Section 6 and the rules and regulations thereunder.

It is therefore ordered, pursuant to section 19(b)(2) of the Act, that the above-mentioned proposed rule change be, and it hereby is, approved.

For the Commission, by the Division of Market Regulation pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1778 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

[Rel. No. 21388, 70-6391, 70-6391]

### Consolidated Natural Gas Co. and CNG Producing Co. Notice of Proposal To Acquire Oil and Gas Leaseholds and Mineral Rights From Non-Affiliate

January 11, 1980.

Notice is hereby given that Consolidated Natural Gas Company ("Consolidated"), Four Gateway Center, Pittsburgh, Pennsylvania 15222, a registered holding company, and CNG Producing Company ("CNG Producing"), 1800 Bank of New Orleans Building, 1010 Common Street, New Orleans, Louisiana 70112, a wholly owned gas exploration and development subsidiary of Consolidated, have filed an application-declaration and an amendment thereto with this Commission pursuant to the Public Utility Holding Company Act of 1935 ("Act"), designating sections 6, 7, 9 (a), 10, 12(f) and 12(g) of the Act and Rules 43 and 50(a)(3) promulgated thereunder as applicable to the proposed transaction. All interested persons are referred to the application-declaration, which is summarized below, for a complete statement of the proposed transaction.

Consolidated is engaged solely in the business of owning and holding all of the outstanding securities, with the exception of minor long-term debt, of eleven subsidiary companies including eight in the natural gas business, plus subsidiary service, coal and research companies. The said eight subidiaries are engaged in natural gas exploration, production, purchasing, gathering, transmission, storage, distribution, by-product operations and importation of LGN. CNG Producing conducts exploration and development operations onshore and offshore, primarily in the southern United States but also in Canada. It sells natural gas, in the United States, to Consolidated Gas Supply Corporation, an affiliate, minor quantities at wholesale to non-affiliates in Louisiana, and to non-affiliates in the Province of Alberta, Canada. Hidalgo-Willacy Oil Company ("Hidalgo"), a non-affiliated Texas corporation, having its principal place of business in McAllen, Texas, engages primarily in leasing mineral properties to and from others from which it obtains production revenue, collects royalties, bonus payments, and delay rentals. It has

leasehold and mineral interests in some 4,000 separate tracts situated in Texas with a minimal interest in Oklahoma. (Collectively, the "Properties.") The Properties constitute over 90% of the market value of all of Hildalgo's net assets.

Consolidated, CNG Producing and Hidalgo propose to enter into an Agreement and Plan of Reorganization ("Agreement"), which will be executed by the respective parties and each of Hidalgo's stockholders, consisting of individuals, corporations and trusts, thereby evidencing their unanimous approval of the transactions contemplated by the Agreement. Pursuant to the Agreement, Consolidated will deliver to CNG Producing such number of shares of its authorized but unissued common stock as shall, in the aggregate, equal $7,000,000. CNG Producing, in turn, will: (i) deliver such shares to Hidalgo for distribution to the shareholders of Hidalgo, in exchange for the Properties and (ii) deliver to Consolidated in consideration for the Consolidated stock 70,000 shares of its own common stock, $100 par value, at the par value thereof.

The number of shares of Consolidated common stock to be delivered will be determined by the per share closing price of said stock on The New York Stock Exchange Consolidated Tape five (5) New York business days immediately preceding the closing date or at a mutually acceptable earlier date. Based on a price of $40 per share, Consolidated would be required to deliver 175,000 shares of its common stock. Fractional shares will be rounded to the nearest whole share.

It is proposed that the cost of the Hidalgo Properties to be acquired be recorded on CNG Producing's books of account at the fair value of Consolidated's common stock issued to consumate the tax-free exchange, because fair value of the common stock is more clearly evident than fair value of the Properties. Some 4,000 tracts are involved in the transaction, and an appraisal of each of these would be not only time consuming but also cost-prohibitive. Economic justification for the proposed acquisition was based upon projected royalty revenues that will be forthcoming from the production of gas and liquid reserves estimated by Peppart-Souders & Associates, independent petroleum consultants.

It is stated that CNG Producing's entry into on-shore Texas through the proposed property acquisition would be a natural extension of its existing Southern producing operations. Most of CNG Producing's exploration and development activities have been heretofore concentrated off-shore Louisiana and Texas. Since December 1972, CNG Producing has participated in eleven offshore lease sales and has expended some $63 million on winning bids for about 48,000 net acres, excluding the November 1979 sale in which CNG Producing is an apparent winner of a tract covering 3,000 net acres at a cost of $5 million. On-shore exploration has been pursued to a limited degree in a number of states in the Gulf of Mexico region. The Hidalgo Properties are situated principally in three counties in Southern Texas. The acquisition of these Properties is viewed no differently from successful bids on the federal off-shore acreage. There are, however, noticeable advantages to the Hidalgo Properties: there is current production on and in the area of the Properties, on-shore wells are less expensive to drill than off-shore and fewer difficulties are encountered in drilling wells and gathering producion. While the Hidalgo Properties are being purchased for an exploration and development program, revenues and cash flow will be forthcoming immediately in the form of royalties. The contribution of royalty income serves to minimize the financial risk of an exploration and development program. CNG Producing's gas production from the Gulf area was 50.4 billion cubic feet in 1978. The proposed acquisition of the Hidalgo Properties is a part of Consolidated's program to increase its supply capability.

The fees, commissions and expenses to be incurred by Consolidated and CNG Producing in connection with the proposed transaction are estimated at $152,600, including consultant's fee of $80,000 and a $20,000 charge of Consolidated Natural Gas Service Company, Inc. for services performed at cost. It is stated that no state or federal regulatory authority, other than this Commission, has jurisdiction over the proposed transaction.

Notice is further given that any interested person may, not later than February 4, 1980, request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request, and the issues of fact or law raised by the filing which he desires to controvert; or he may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, Washington, D.C. 20549. A copy of such request should be served personally or by mail upon the applicants-declarants at the above-stated addresses, and proof of service (by affidavit or, in case of an attorney at law, by certificate) should be filed with the request. At any time after said date, the application-declaration, as amended or as it may be further amended, may be granted and permitted to become effective as provided in Rule 23 of the General Rules and Regulations promulgated under the Act, or the Commission may grant exemption from such rules as provided in Rules 20(a) and 100 thereof or take such other action as it may deem appropriate. Persons who request a hearing or advice as to whether a hearing is ordered will receive any notices or orders issued in this matter, including the date of the hearing (if ordered) and any postponements thereof.

For the Commission, by the Division of Corporate Regulation, pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1774 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

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[Release No. 16491; SR-NASD-79-10]

## National Association of Securities Dealers, Inc.; Order Approving Proposed Rule Change

January 14, 1980.

On October 22, 1979, the National Association of Securities Dealers, Inc. ("NASD") 1735 K Street, N.W., Washington, DC 20006, filed with the Commission, pursuant to section 19(b)(1) of the Securities Exchange Act of 1934, 15 U.S.C. 78(s)(b)(1) (the "Act") and Rule 19b-4 thereunder, copies of a proposed rule change which would amend the NASD's Code for Procedure for Handling Trade Practice Complaints ("Code") to provide that a mailing to any participant, member, or associated person, directed to the latest address carried on the NASD's records for that person, constitutes a proper service under the Code. In addition, the proposed amendment would provide that, for purposes of computing the time for required action under the Code, three days shall be added to the prescribed period if service is effected by mail. The NASD states that the purpose of the proposed amendment is to prevent the possibility of an open-ended period for appeals where an aggrieved person has not received timely notice under the Code.[1]

Notice of the proposed rule change together with the terms of substance of

[1] In connection with its adoption of Rule 19d-3 under the Act, the Commission advised all self-regulatory organizations to review their rules to make sure this problem was dealt with. Securities Exchange Act Release No. 13726 (July 8, 1977), 42 FR 36401 (July 14, 1977).

the proposed rule change was given by publication of a Commission Release (Securities Exchange Act Release No. 34–16366, November 27, 1979) and by publication in the Federal Register (44 FR 70250, December 6, 1979). No comments were received.

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to registered securities associations, and in particular, the requirements of sections 15A(b)(6), (b)(8), (h)(1), and (h)(2), concerning fair procedures for the disciplining of members and persons associated with members, especially due process notice requirements, and the rules and regulations thereunder.

It is therefore ordered, pursuant to section 19(b)(2) of the Act, that the above-mentioned proposed rule change be, and it hereby is, approved.

For the Commission, by the Division of Market Regulation pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1775 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

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[Rel. No. 21391; 70-6399]

## Applachian Power Co.; Notice of Proposed Issue and Sale of First Mortgage Bonds

January 11, 1980.

Notice is hereby given that Appalachian Power Company ("Appalachian"), 40 Franklin Road, Roanoke, Virginia 24009, an electric utility subsidiary company of American Electric Power Company, Inc. ("AEP"), a registered holding company, has filed with this Commission a declaration pursuant to the Public Utility Holding Company Act of 1935 ("Act"), designating sections 6, 7 and 12 of the Act and Rules 42 and 50 promulgated thereunder as applicable to the proposed transactions. All interested persons are referred to the declaration, which is summarized below, for a complete statement of the proposed transactions.

Appalachian proposes to issue and sell two new series of its first mortgage bonds, one such series in a private placement with Metropolitan Life Insurance Company ("Metropolitan") in an aggregate principal amount of $23,800,000 (the "First Series"), and the second such series to be sold to underwriters at competitive bidding in an aggregate principal amount of up to $40,000,000 (the "Second Series"). The sale of one series will not be dependent upon the sale of the other.

The First Series will bear interest at the rate of 12½% per annum and will mature and become payable on February 1, 1990. The price to be paid by Metropolitan will be 100% of the principal amount of the First Series. The terms of the First Series will preclude Appalachian from redeeming any bonds of such series at a regular redemption price before the expiration of five years from the first day of the month in which bonds of the First Series are first authenticated and delivered, if such redemption is for the purpose of refunding any such bond through the use, directly or indirectly, of borrowed funds at an effective interest cost less than the effective cost to Appalachian of the First Series. The terms of the bonds also will include a cumulative sinking fund pursuant to which Appalachian will be required to retire annually, commencing on February 1, 1985, $1,190,000 principal amount of the bonds of such series. It is stated that no finder's or other fee, commission or remuneration will be paid to any third person in connection with the sale. Appalachian further claims that the terms of the First Series compare favorably with the terms of similarly rated bonds of other electric utility companies which have been sold recently.

Appalachian proposes to issue and sell the Second Series to underwriters at competitive bidding. The interest rate (which will be expressed in a multiple of ⅛ of 1%) and the price to be paid to Appalachian for the bonds (which will not be less than 100% of principal amount, unless Appalachian shall authorize a lower percentage not less than 99%, nor more than 102¾% of principal amount) will be determined by competitive bidding. The terms of the bonds of the Second Series will also preclude Appalachian from redeeming any bonds of such series at a regular redemption price for five years after the first day of the month in which bonds of such series are first authenticated and delivered, if such redemption is for the purpose of refunding any bonds of such series through the use, directly or indirectly, of borrowed funds at an effective interest cost of less than the effective interest cost to Appalachian of such series of bonds. It is expected that the successful bidders for the bonds of the Second Series will make a public offering of the same.

Appalachian proposes to issue and sell up to $40,000,000 principal amount of bonds of the Second Series. The actual principal amount to be issued and sold will depend upon the net earnings of Appalachian (computed as provided in the Mortgage) for the twelve months ended December 31, 1979 (or the twelve months ended January 31, 1980, if practicable) and the level of interest rates on comparably rated debt securities prevailing shortly before the submission of bids for the bonds of the Second Series. It is stated that it is difficult to determine, under present bond market conditions, whether it would be more advantageous to Appalachian to sell the Second Series with a 30-year or some shorter maturity. It is proposed, therefore, that Appalachian decide at a later time, prior to the submission of bids for the bonds of the Second Series, on the maturity of the bonds of such series.

Each new series of bonds will be issued under and secured by Appalachian's Mortgage and Deed of Trust, dated as of December 1, 1940, as it has been and is proposed to be amended and supplemented.

The proceeds from the sale of the bonds of the First Series, together with other funds available to Appalachian, will be used to pay at maturity $23,874,000 principal amount of First Mortgage Bonds, 2⅞% Series due 1980, which will become payable on March 1, 1980. The proceeds from the sale of the bonds of the Second Series will be used to repay unsecured short-term debt of Appalachian. As of December 19, 1979, Appalachian had approximately $164,625,000 aggregate principal amount of such unsecured short-term debt outstanding, and it is anticipated that, at the time of the issuance and delivery of the bonds of the Second Series, approximately $160,000,000 aggregate principal amount of such short-term debt will be outstanding.

The fees and expenses to be incurred in connection with the proposed transactions will be supplied by amendment. The fees and expenses of counsel for the successful bidder or bidders for the bonds of the Second Series, to be paid by such bidder or bidders (except as otherwise provided in the purchase contract), will also be supplied by amendment. It is stated that the proposed transactions are subject to authorization by the State Corporation Commission of Virginia, and by the Tennessee Public Service Commission, and that no other state commission and no federal commission, other than this Commission, has jurisdiction over the proposed transactions.

Notice is further given that any interested person may not later than February 6, 1980, request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for

such request, and the issues of fact or law raised by said declaration which he desires to controvert; or he may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, Washington, D.C. 20549. A copy of such request should be served personally or by mail upon the declarant at the above-stated address, and proof of service (by affidavit or, in case of an attorney at law, by certificate) should be filed with the request. At any time after said date the declaration, as filed or as it may be amended, may be permitted to become effective as provided in Rule 23 of the General Rules and Regulations promulgated under the Act, or the Commission may grant exemption from such rules as provided in Rules 20(a) and 100 thereof or take such other action as it may deem appropriate. Persons who request a hearing or advice as to whether a hearing is ordered will receive any notices and orders issued in this matter, including the date of the hearing (if ordered) and any postponements thereof.

For the Commission, by the Division of Corporate Regulation, pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1768 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

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[Release No. 11015; 812-4418]

## Fidelity Cash Reserves; Notice of Filing of an Application for an Order of the Commission Amending a Previous Order Pursuant to Section 6(c) of the Act Granting Exemption From the Provisions of Rules 2a-4 and 22c-1 Under the Act

January 9, 1980.

Notice is hereby given that Fidelity Cash Reserves ("Applicant"), 82 Devonshire Street, Boston, Massachusetts 02109, registered under the Investment Company Act of 1940 ("Act") as an open-end, diversified management investment company, filed an application on December 3, 1979, requesting an order of the Commission amending in the manner described below an earlier order of the Commission dated April 5, 1979 (Investment Company Act Release No. 10654). This earlier order, pursuant to section 6(c) of the Act, exempted Applicant from the provisions of Rules 2a-4 and 22c-1 under the Act to the extent necessary to permit Applicant to compute its net asset value per share, for purposes of effecting sales, redemptions and repurchases of its shares, to the nearest one cent on a share value of one dollar. All interested persons are referred to the application on file with the Commission for a statement of representations contained therein, which are summarized below.

Applicant states that it is a "money market fund" offering to indivdiuals, corporations, fiduciaries and institutions a means of investment in a professionally managed portfolio of money market instruments with the objective of obtaining as high a level of current income as is consistent with the preservation of capital and liquidity. Applicant further states that its shares are sold without a sales charge.

Applicant states that it invests exclusively in various high-grade money market instruments including U.S. government and federal agency obligations; U.S. dollar-denominated obligations of the largest banks, including United States banks and their branches located outside of the United States and United States branches of foreign banks; prime commercial paper; high-grade corporate obligations which are rated AAA or AA by Standard & Poor's Corporation or Aaa or Aa by Moody's Investor Services, Inc.; and certain repurchase agreements with respect to obligations which, without regard to maturity, it is authorized to invest.

According to the application, all of Applicant's assets are invested in money market instruments maturing in less than one year, and the dollar-weighted average portfolio maturity of its portfolio may not exceed 120 days. The minimum initial investment in shares of the Applicant is $1,000 with additional investments accepted in amounts of $100 or more. Applicant further represents that at the close of business on October 31, 1979, its aggregate net assets were approximately $240,228,461. Fidelity Management and Research Company serves as investment adviser to Applicant.

Applicant represents that pursuant to the earlier order of the Commission dated April 5, 1979, Applicant presently computes its net asset value per share to the nearest one cent on a share value of one dollar utilizing the "penny rounding" valuation method. Applicant now seeks an order of the Commission, pursuant to section 6(c) of the Act, amending this earlier order, which amended order would exempt Applicant from the provisions of section 2(a)(41) of the Act and Rules 2a-4 and 22c-1 thereunder to the extent necessary to permit Applicant's assets to be valued according to the amortized cost valuation method. Applicant further states that under the amortized cost valuation method, portfolio instruments are valued at their cost as of the date of acquisition assuming a constant rate of amortization to maturity of any discount or premium, regardless of the impact of fluctuating interest rates on the market value of such instruments.

As here pertinent, section 2(a)(41) of the Act defines value to mean: (i) with respect to securities for which market quotations are readily available, the market value of such securities, and (ii) with respect to other securities and assets, fair value as determined in good faith by the board of directors. Rule 22c-1 adopted under the Act provides, in part, that no registered investment company or principal underwriter therefor issuing any redeemable security shall sell, redeem or repurchase any such security except at a price based on the current net asset value of such security which is next computed after receipt of a tender of such security for redemption or of an order to purchase or sell such security.

Rule 2a-4 adopted under the Act provides, as here relevant, that the "current net asset value" of a redeemable security issued by a registered investment company used in computing its price for the purposes of distribution, redemption and repurchase shall be an amount which reflects calculations made substantially in accordance with the provisions of that rule, with estimates used where necessary or appropriate. Rule 2a-4 further states that portfolio securities with respect to which market quotations are readily available shall be valued at fair value as determined in good faith by the board of directors of the registered company. Prior to the filing of the application, the Commission expressed its view that, among other things, (1) Rule 2a-4 under the Act requires that portfolio instruments of "money market" funds be valued with reference to market factors, and (2) it would be inconsistent, generally, with the provisions of Rule 2a-4 for a "money market" fund to value its portfolio instruments on an amortized cost basis (Investment Company Act Release No. 9786, May 31, 1977).

Section 6(c) provides, in pertinent part, that the Commission, by order upon application, may conditionally or unconditionally exempt any person, security or transaction or any class or classes of persons, securities or transactions from any provision of the Act or of any rule or regulation under the Act, if and to the extent that such exemption is necessary or appropriate

in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act.

According to the application, Applicant's Trustees have determined in good faith that in light of its characteristics as described above, including the conditions to which Applicant must adhere as set forth in the earlier order of the Commission dated October 19, 1979, absent unusual or estraordinary circumstances, the amortized cost method of valuing portfolio securities is appropriate and in Applicant's best interests and reflects the fair value of such securities. Applicant further represents that under the amortized cost method its shareholders would continue to have all the conveniences and advantages of a stable purchase and redemption price of $1.00 per share as described in its previous application to support the exemptive relief granted in such earlier order of the Commission.

Applicant has agreed that the following conditions may be imposed in any order of the Commission granting the exemptive relief requested:

(1) In supervising Applicant's operations and delegating special responsibilities involving portfolio management to Applicant's investment adviser, Applicant's Board of Trustees undertakes—as a particular responsibility within the overall duty of care owed to its shareholders—to establish procedures reasonably designed, taking into account current market conditions and Applicant's investment objectives, to stabilize Applicant's net asset value per share, as computed for the purpose of distribution, redemption and repurchase at $1.00 per share.

(2) Included within the procedures to be adopted by the Board of Trustees shall be the following:

(a) Review by the Board of Trustees, as it deems appropriate and at such intervals as are reasonable in light of current market conditions, to determine the extent of deviation, if any, of Applicant's net asset value per share as determined by using available market quotations from the $1.00 amortized cost price per share, and maintenance of records of such review.[1]

(b) In the event such deviation from the $1.00 amortized cost price per share exceeds ½ of 1%, a requirement that the Board of Trustees will promptly consider what action, if any should be initiated.

(c) Where the Board of Trustees believes the extent of any deviation from Applicant's $1.00 amortized cost price per share may result in material dilution or other unfair results to investors or existing shareholders, it shall take such action as it deems appropriate to eliminate or to reduce to the extent reasonably practicable such dilution or unfair results, which action may include: redemption of shares in kind; the sale of portfolio instruments prior to maturity to realize capital gains or losses, or to shorten Applicant's average portfolio maturity; withholding dividends; or utilizing a net asset value per share as determined by using available market quotations.

(3) Applicant will maintain a dollar-weighted average portfolio maturity appropriate to its objective of maintaining a stable net asset value per share; provided, however, that Applicant will not (a) purchase any instrument with a remaining maturity of greater than one year, or (b) maintain a dollar-weighted average portfolio maturity in excess of 120 days.[2]

(4) Applicant will record, maintain and preserve permanently in an easily accessible place a written copy of the procedures (and any modifications thereto) described in condition 1 above, and Applicant will record, maintain and preserve for a period of not less than six years (the first two years in an easily accessible place) a written record of the Board of Trustees' considerations and actions taken in connection with the discharge of its responsibilities, as set forth above, to be included in the minutes of the Board of Trustees' meetings. The documents preserved pursuant to this condition shall be subject to inspection by the Commission in accordance with Section 31(b) of the Act as though such documents were records required to be maintained pursuant to rules adopted under Section 31(a) of the Act.

(5) Applicant will limit its portfolio investments, including repurchase agreements, to those U.S. dollar-denominated instruments which the Board of Trustees determines present minimal credit risks, and which are of high quality as determined by any major rating service or, in the case of any instrument that is not so rated, of comparable quality as determined by the Board of Trustees.

(6) Applicant will include in each quarterly report, as an attachment to Form N-1Q, a statement as to whether any action pursuant to condition 2(c) above was taken during the preceding fiscal quarter, and, if any action was taken will describe the nature and circumstances of such action.

Applicant submits that use of the amortized cost method of valuing its portfolio securities, subject to the conditions enumerated above, will benefit its shareholders by enabling the Applicant to more effectively maintain the $1.00 per share purchase and redemption price in a manner which is substantially similar to that permitted under the Commission's earlier order. The Applicant further believes that granting of the requested exemptions by the Commission is appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act.

Notice is further given that any interested person may, not later than January 31, 1980, at 5:30 p.m., submit to the Commission in writing a request for a hearing on the application accompanied by a statement as to the nature of his interest, the reasons for such request and the issues, if any, of fact or law proposed to be controverted, or he may request that he be notified if the Commission shall order a hearing thereon. Any such communication should be addressed: Secretary, Securities and Exchange Commission, Washington, D.C. 20549. A copy of such request shall be served personally or by mail upon Applicant at the address stated above. Proof of such service (by affidavit or, in the case of an attorney-at-law, by certificate) shall be filed contemporaneously with the request. As provided by Rule 0-5 of the Rules and Regulations promulgated under the Act, an order disposing of the application herein will be issued as of course following said date unless the Commission thereafter orders a hearing upon request or upon the Commission's own motion. Persons who request a hearing, or advice as to whether a hearing is ordered, will receive any notices and orders issued in this matter, including the date of the hearing (if ordered) and any postponements thereof.

[1] Applicant states that to fulfill this condition, it intends to use actual quotations or estimates of market value reflecting current market conditions chosen by its Board of Trustees in the exercise of its discretion to be appropriate indicators of value. In addition, Applicant states that the quotations or estimates utilized may include, *inter alia*, (1) quotations or estimates of market value for individual portfolio instruments, or (2) values obtained from yield data relating to classes of money market instruments published by reputable sources.

[2] In fulfilling this condition, if the disposition of a portfolio instrument results in a dollar-weighted average portfolio maturity in excess of 120 days, Applicant will invest its available cash in such a manner as to reduce its dollar weighted average portfolio maturity to 120 days or less as soon as reasonably practicable.

For the Commission, by the Division of Investment Management, pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1787 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

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[Release No. 21392; 70-6170]

## Lowell Gas Co. and Cape Cod Gas Co.; Notice of Post-Effective Amendment Relating to Short-Term Financing

January 14, 1980.

Notice is hereby given that Lowell Company ("Lowell"), 95 East Merrimack Street, Lowell, Massachusetts 01853, and Cape Cod Gas Company ("Cape Cod"), P.O. Box 1360, Hyannis, Massachusetts 02601, public utility subsidiaries of Colonial Gas Energy System ("Colonial"), a registered holding company, have filed with this Commission a post-effective amendment to the joint declaration in this proceeding pursuant to Sections 6 and 7 of the Public Utility Holding Company Act of 1935 ("Act") regarding the following proposed transaction. All interested persons are referred to the amended declaration for a complete statement of the proposed transaction.

By order dated December 26, 1979 (HCAR No. 21359), this Commission authorized Lowell to increase the maximum loan amount under its credit agreements from $11,800,000 to $12,500,000 through March 31, 1980. Such increase was occasioned by the additional working capital requirements of Lowell and Cape Cod due to increased cost of natural gas supplied by pipeline. By post-effective amendment Lowell hereby requests that the increased maximum loan amount heretofore requested by it be extended through June 30, 1980.

The fees, commissions and expenses to be incurred in connection with the proposed transaction are estimated to total $2,000, comprised of legal fees. It is stated that no state commission, and no federal commission, other than this Commission has jurisdiction over the proposed transaction.

Notice is further given that any interested person may, not later than February 11, 1980, request in writing that a hearing be held on such matter, stating the nature of his interest, the reasons for such request, and the issues of fact or law raised by said post-effective amendment to the application-declaration which he desires to controvert, or he may request that he be notified if the Commission should order a hearing thereon. Any such request should be addressed: Secretary, Securities and Exchange Commission, Washington, D.C. 20549. A copy of such request should be served personally or by mail upon the applicant-declarant at the above-stated address, and proof of service (by affidavit or, in case of an attorney at law, by certificate) should be filed with the request. At any time after said date, the application-declaration, as now amended or as it may be further amended, may be granted and permitted to become effective as provided in Rule 23 of the general rules and regulations promulgated under the Act, or the Commission may grant exemption from such rules as provided in Rules 20(a) and 100 thereof or take such other action as it may deem appropriate. Persons who request a hearing or advice as to whether a hearing is ordered will receive any notices or orders issued in this matter, including the date of the hearing (if ordered) and any postponements thereof.

For the Commission, by the Division of Corporate Regulation, pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1789 Filed 1-18-80; 8:45 am]

BILLING CODE 8010-01-M

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[Release No. 11018; 812-4499]

## Narragansett Capital Corp. and Photo Systems, Inc.; Notice of Filing of Application for Order Pursuant to Section 17(b) of the Act Exempting Proposed Transaction From Section 17(a) of the Act and Pursuant to Section 17(d) of the Act and Rule 17d-1 Thereunder Permitting Joint Transaction

January 14, 1980.

Notice is hereby given that Narragansett Capital Corporation ("Narragansett"), 40 Westminster Street, Providence, Rhode Island 02903, a non-diversified, closed-end, management investment company registered under the Investment Company Act of 1940 ("Act") and a licensed small business investment company under the Small Business Investment Act of 1958, and Photo Systems, Inc. ("Photo Systems"), 7200 West Huron River Drive, Dexter, Michigan 48130, a company presumed to be controlled by Narragansett (hereinafter Narragansett and Photo Systems are collectively referred to as "Applicants"), filed an application on June 26, 1979, and an amendment thereto on November 27, 1979, for an order of the Commission pursuant to section 17(b) of the Act exempting from the provisions of section 17(a) of the Act and, pursuant to section 17(d) of the Act and Rule 17d-1 thereunder, permitting certain proposed transactions which are to be made in connection with the restructuring of Narragansett's investment in Photo Systems. All interested persons are referred to the application on file with the Commission for a statement of the representations contained therein, which are summarized below.

According to the application, Photo Systems, a Michigan corporation which manufactures and sells darkroom equipment and photographic supplies and operates a film processing laboratory, has a total of 1,030,000 shares of Common Stock which are issued and outstanding, all of which carry voting rights and have a par value of $0.10 per share. The application states that 230,000 of such shares are Class A Common Stock and are held by six persons who were employees or spouses of employees when Photo Systems were organized in 1973. The application further states that the remaining 800,000 shares, or 77.7% of Photo Systems' outstanding shares, are Class B Common Stock held by Narragansett. Applicants state that in addition to an equity investment in Photo Systems, Narragansett holds a note issued by Photo Systems which has a currently outstanding principal balance of $1,172,430. Three of Photo Systems' five directors (Messrs. Sarles, Little and Considine) are directors and present or former officers of Narragansett.

Applicants state that when Photo Systems was organized in July, 1973, Narragansett purchased 250,000 shares of Class B Common Stock at an aggregate purchase price of $250,000 and loaned the company $1,750,000, evidenced by a Photo Systems note in that amount ("1973 Note"). Such loan, Applicants state, was subordinate in right of payment to Photo Systems' indebtedness to the Industrial National Bank of Rhode Island ("INBank") in the amount of $2,750,000. Applicants further state that because of financial difficulties experienced by Photo Systems, Applicants took certain steps during the period from 1974 through 1975 to refinance and restructure Narragansett's investment. On September 5, 1974, Narragansett loaned Photo Systems an additional $100,000, evidenced by a demand note for such amount which carried an interest rate of fifteen percent per annum ("Demand Note"). In 1975 Photo Systems underwent an internal reorganization ("1975 Refinancing") under the supervision of Narragansett which included: (a) the refinancing of the principal amount of the Demand Note

through (i) the conversion of $50,000 of principal to 50,000 shares of Class 3 Common Stock at an agreed price of $1.00 per share and (ii) the execution and delivery to Narragansett of Photo Systems' subordinated promissory note in the amount of $50,000, payable on June 30, 1977, together with interest at 5% above INBank's prime rate with a maximum of 15% and a minimum of 12% ("Interim Note"); (b) all accrued interest on the Demand Note was paid in full; (c) conversion of the 1973 Note for $1,750,000 into: (i) 500,000 shares of Class B Common Stock at an agreed value of $1.00 per share and (ii) a subordinated promissory note in the amount of $1,250,000 payable on August 1, 1983, with an interest rate of 5% above the floating prime rate of INBank, not to exceed 15% nor to be less than 12% ("Substituted Note"); (d) interest due on the 1973 Note, which amounted to $127,388.69, was converted into a subordinated promissory note ("Interest Note") due August 1, 1980, without interest through the maturity date; (e) the election of a third nominee of Narragansett to Photo Systems' Board of Directors; and (f) an amendment to Photo Systems' Articles of Incorporation to provide for Class B Common Stock to receive a 10% cumulative dividend (if permitted by INBank).

Applicants state that these steps, increasing Narragansett's equity ownership from 250,000 shares to 800,000 shares, increased Narragansett's percentage of ownership from 50% to 76.2%, while the principal amount of Photo System's indebtedness to Narragansett was decreased. Additionally, the application states that as a part of the 1975 Refinancing Agreement, Photo Systems was given the option to redeem and purchase 500,000 shares of its stock from Narragansett at a price specified in a schedule included in the agreement. The application further states that following the 1975 Refinancing, William Considine (a director of Narragansett) was elected as chairman of the Board of Directors and chief executive officer of Photo Systems. Additionally, Applicants state that Mr. Considine's actual annual compensation as chief executive officer has ranged from $30,000 to $60,000.

Thereafter, according to Applicants, Photo Systems continued to experience financial difficulties which led to the refinancing of Photo Systems' indebtedness to Narragansett ("1976 Refinancing") through a cancellation of all prior debts in exchange for a subordinated promissory note due June 30, 1981, in the amount of $1,500,000, with interest of 10% ("1976 Note"). As stated in the application (which included the $50,000 Interim Note, the $1,250,000 Substituted Note and the $127,388.69 Interest Note) by changing the maturity date on the individual notes from June 1977, August 1983, and August 1980, respectively, to June 1981 and by reducing the interest rate to 10% and (2) added all but $66,482.55 of the accrued and unpaid interest on the Interim and Substituted Notes due Narragansett to the principal amount of Photo Systems' indebtedness. Applicants state that part of the interest due was forgiven because Photo Systems was still struggling financially. Applicants further state that as a result of the 1976 Refinancing, the principal amount of Narragansett's investment was increased to $2,300,000, consisting of equity of $800,000 and subordinated debt in the principal amount of $1,500,000.

According to the application, during 1977 and 1978, Photo Systems' financial picture was affected by the following events: (1) On January 13, 1977, Narragansett agreed to permanently waive its right to dividend arrearages on Photo Systems stock in the amount of $94,572; (2) in January 1978, Photo Systems disposed of one of its divisions to an unrelated third party for net cash proceeds of $1,450,000, all of which were used to reduce its then outstanding indebtedness to INBank from $2,400,000 to approximately $950,000; (3) on June 12, 1978, with the approval of the Commission, Photo Systems disposed of another division to Sound Color Corporation (a company created for such purpose and in which Narragansett invested $75,000 for 50% of the voting stock) and used $625,000 of the proceeds to reduce its indebtedness to INBank to approximately $325,000 and used $300,000 of the proceeds to reduce the principal amount of its indebtedness to Narragansett from $1,500,000 to $1,200,000; and (4) during 1978 Photo Systems redeemed 20,000 shares of Class A Common Stock.

Applicants state that on June 15, 1979, they entered into a Redemption and Refinancing Agreement ("Agreement") pursuant to which Photo Systems will be restructured and refinanced in the following manner. Photo Systems will purchase 550,000 of the 800,000 shares of Class B Common Stock held by Narragansett for an aggregate purchase price of $550,000. The purchase price is payable by delivery to Narragansett of a cash payment of $5,000 and a promissory note of Photo Systems for the remaining $545,000, plus the outstanding balance of the 1976 Note (amounting to $1,172,430 as of the date of the application) which is being refinanced ("Redemption Note"). Applicants state that the Redemption Note will be due August 1, 1984, will carry an interest rate of 12% per annum, will be payable during each fiscal year in an amount equal to 20% of Photo Systems' after-tax earnings for the preceding fiscal year, and will be subordinated, with respect to principal and interest, to Photo Systems' indebtedness to InBank.

Section 2(a)(3) of the Act includes within the definition of "affiliated person" of another person: (1) any person owning five percent or more of the outstanding voting securities of such other person; (2) any person five percent or more of whose outstanding voting securities are owned by such other person; (3) any officer, director or employee of such other person; and (4) any person controlled by such other person. Section 2(a)(9) of the Act provides, in part, that any person owning, directly or indirectly, more than 25 percent of the voting securities of a company shall be presumed to control such company. Accordingly, Applicants state that: (1) Photo Systems is an affiliate of and, by virtue of Narragansett's ownership of 77.7% of Photo Systems' outstanding voting securities, presumed to be controlled by Narragansett; (2) Narragansett is an affiliate of Photo Systems; and (3) Messrs. Sarles, Little and Considine, by virtue of their positions as directors of Narragansett, are affiliates of Narragansett and, similarly, by virtue of thier positions as directors of Photo Systems, are also affiliates of Photo Systems.

Section 17(a) of the Act provides, in pertinent part, that it is unlawful for any affiliated person of a registered investment company or any affiliated person of such person, acting as principal, knowingly to purchase from or sell to such registered company or any company controlled by such registered company, any security or other property except securities of which the seller is the issuer. Section 17(b) of the Act generally provides that, upon application, the Commission shall exempt a proposed transaction from the provisions of section 17(a) of the Act if evidence establishes that the terms of the proposed transaction, including the consideration to be paid or received, are reasonable and fair and do not involve overreaching on the part of any person concerned and that the proposed transaction is consistent with the policy of the registered investment company concerned and with the general purposes of the Act.

Although Rule 17a–6 under the Act provides an exemption for transactions with certain affiliated persons, Applicants acknowledge that because Mr. Considine receives a salary from Photo Systems, he may be deemed to have an "indirect financial interest" in Photo Systems, thus rendering the exemption unavailable. Consequently, Applicants request an order pursuant to section 17(b) of the Act, exempting from the provisions of section 17(a) of the Act, the redemption and refinancing arrangement described above.

Section 17(d) of the Act and Rule >17d–1 thereunder, taken together, provide, in part, that it is unlawful for an affiliated person of a registered investment company, or an affiliated person of such person, acting as principal, to effect any transaction in which such investment company is principal, to effect any transaction in which such investment company is a joint participant, without the permission of the Commission. Rule 17d–1 provides, in part, that in passing upon applications for orders granting such permission, the Commission will consider (i) whether the participation of the investment company in such transaction on the basis proposed is consistent with the provisions, policies and purposes of the Act, and (ii) the extent to which such participation is on a basis different from or less advantageous than of other participants. Applicants state that the proposed transaction may be said to involve a joint arrangement, in which Narragansett and Photo Systems are participants, and thus could be deemed to be prohibited under Rule 17d–1 unless the Commission issues an exemptive order or the transaction is otherwise exempt under the provisions of Rule 17d–1. Although Rule 17d–1(d)(5) under the Act provides that no application need be filed with respect to certain joint transactions, Applicants acknowledge that because of Mr. Considine's salary from Photo Systems, he may be deemed to have an "indirect financial interest" in the joint enterprise, and because Photo Systems might be said to be committing in excess of 5% of its assets to the joint enterprise, the exemption is not clearly available. Therefore, Applicants request an order of the Commission, pursuant to section 17(d) of the Act and Rule 17d–1 thereunder, permitting the proposed redemption and refinancing arrangement.

Applicants assert that the proposed transaction is reasonable and fair to Narragansett and Photo Systems and does not involve overreaching on the part of either party. Applicants state that in their judgment the $1.00 per share is a fair and reasonable price for the stock of Photo Systems for the following reasons: (1) the book value of the Photo Systems stock, which is one objective measure of value, was approximately $.92 per share on September 27, 1978, the date on which Narragansett agreed in principal to sell a portion of its Class B Stock back to Photo Systems at $1.00 per share, and, as of March 31, 1979, after final terms of the transaction were agreed to on or about March 8, 1979, and prior to approval of the transaction by Narragansett's Board of Directors on May 3, 1979, Photo Systems' stock had a book value of $1.02 per share; (2) the management of Photo Systems elected not to exercise the option to purchase its shares based on their judgment that, among other things, the applicable option price under the terms of the 1975 Refinancing Agreement exceeded the present fair value and that Photo Systems could not afford to repurchase its shares at the option price even if such price were reasonable; and (3) all the purchases of such shares by Photo Systems and the management-stockholders occurring between April 1, 1978, and December 28, 1978, amounting to 143,000 shares, were consummated at $1.00 per share, payable in cash, except for 5,000 shares redeemed from an employee whose employment was terminated, and whose shares were redeemed at $.50 per share payable in cash at which time Photo Systems also forgave $2,500 of indebtedness owed by such employee. Applicants noted that as a part of the refinancing, the interest rate on all of Photo Systems' outstanding indebtedness to Narragansett will be raised from 10% to 12% and the maturity date extended by three years. Applicants submit that such terms are fair to both parties for the following reasons: (1) the increased yield on Photo Systems' indebtedness and the enhanced potential for gain on its equity ownership which Narragansett will derive by providing management stockholders meaningful equity participation adequately compensates Narragansett for the extension of the maturity date; (2) the rate of interest to be charged on the Redemption Note is fair to Photo Systems given present money market conditions, the extension of the maturity date and the subordinated nature of the loan; (3) it is evident that Photo Systems will be unable to meet its obligation under the 1976 Note to repay Narragansett in 1981; (4) the refinancing is structured in a way which Photo Systems believes will permit it to meet its obligations without unduly burdening it; and (5) Photo Systems believes that the increased equity participation of the management stockholders will assure their continued employment which Narragansett considers essential to the continued profitability and growth of Photo Systems. Additionally, it is noted that Narragansett will continue to control Photo Systems through the ownership of 52.1% of Photo Systems' voting stock.

Applicants also assert that the proposed transaction is consistent with the policy of Narragansett as reflected in its registration statement and reports filed under the Act; that the proposed transaction is consistent with the general purposes of the Act; and participation of both Narragansett and Photo Systems in the joint enterprise is not on a basis less advantageous than that of the other participant. Specifically, Applicants submit that neither participant is advantaged or benefited at the expense of the other in the proposed transaction.

Notice is further given that any interested person may, not later than February 7, 1980, at 5:30 p.m., submit to the Commission in writing a request for a hearing on the matter accompanied by a statement as to the nature of his interest, the reason for such request, and the issues, if any, of fact or law proposed to be controverted, or he may request that he be notified if the Commission shall order a hearing thereon. Any such communication should be addressed: Secretary, Securities and Exchange Commission, Washington, D.C. 20549. A copy of such request shall be served personally or by mail upon Applicants at the addresses stated above. Proof of such service (by affidavit or, in the case of an attorney-at-law, by certificate) shall be filed contemporaneously with the request. As provided by Rule 0–5 of the Rules and Regulations promulgated under the Act, an order disposing of the application will be issued as of course following said date unless the Commission thereafter orders a hearing upon request or upon the Commission's own motion. Persons who request a hearing, or advice as to whether a hearing is ordered, will receive any notices and orders issued in this matter, including the date of the hearing (if ordered) and any postponements thereof.

For the Commission, by the Division of Investment Management, pursuant to delegated authority.

George A. Fitzsimmons,

*Secretary.*

[FR Doc. 80-1790 Filed 1-17-80; 8:45 am]

BILLING CODE 8010-01-M

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[Docket No. RFA 511-79-3]

### Guarantee of Obligations; Receipt of Application

*Project:* Notice is hereby given that the Chicago and North Western Transportation Company ("applicant"), 400 West Madison Street, Chicago, Illinois 60606, has filed an application with the Federal Railroad Administration ("FRA") under section 511 of the Railroad Revitalization and Regulatory Reform Act of 1976, as amended, 45 U.S.C. 831, to secure a commitment by the United States to guarantee obligations or other evidence of indebtedness to be issued by the applicant in the principal amount of $28,300,000. Loan arrangements have not been completed at this time.

The proceeds of the loan are to be used by the applicant to refurbish and improve 2,604 freight train cars. More specifically, the following types of freight cars will be refurbished and improved.

| Car type | Number of cars |
|---|---|
| Box, XM, 50 ft. WD | 673 |
| Box, XF, 50 ft | 27 |
| Box, 60 ft., Equipped | 58 |
| Box, 86 ft., Equipped | 24 |
| Box, 40 ft. & 50 ft. DF | 179 |
| Box, Insulated | 156 |
| Open Top Hopper | 132 |
| Covered Hopper-Small-G | 162 |
| Covered Hopper-Medium-G | 16 |
| Covered Hopper-Small-GP | 31 |
| Covered Hopper-Large | 536 |
| Ore Hopper-Large | 103 |
| Ore Hopper-Small | 150 |
| Gondola, 53 ft., Equipped | 16 |
| Gondola, 53 ft., Covered | 20 |
| Gondola, 53 ft., Plain | 42 |
| Gondola, 41 ft., Equipped | 21 |
| Gondola, 41 ft., Plain | 221 |
| Gondola, 65 ft., Equipped | 5 |
| Gondola, 65 ft., Plain | 18 |
| Coil Skid Flat | 14 |
| Total | 2,604 |

*Justification for Project:* The applicant states that the refurbishment and improvement project will permit more efficient service and additional traffic by increasing the supply of freight cars to present and potential customers because of improved freight car availability and utilization. In addition, the applicant states that the project will reduce its dependence on foreign cars, thereby reducing car rental expense.

*Comments:* Interested persons may submit written comments on the application to the Acting Associate Administrator for Federal Assistance, Federal Railroad Administration, 400 Seventh Street, S.W., Washington, D.C. 20590, not later than February 20, 1980. Such submission shall indicate the docket number shown on this notice and state whether the commenter supports or opposes the application and the reasons therefor.

The comments will be taken into consideration by the Federal Railroad Administration in evaluating the application. However, formal acknowledgement of the comments will not be provided.

Dated: January 11, 1980.

William E. Loftus,

*Acting Associate Administrator for Federal Assistance.*

[FR Doc. 80-1580 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-06-M

## Federal Aviation Administration

[Summary Notice No. PE-80-2]

### Petitions for Exemptions; Summary of Petitions Received and Dispositions of Petitions Issued

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of petitions for exemptions received and of dispositions of petitions issued.

**SUMMARY:** Pursuant to FAA's rulemaking provisions governing the application, processing, and disposition of petitions for exemption (14 CFR Part 11), this notice contains a summary of certain petitions seeking relief from specified requirements of the Federal Aviation Regulations (14 CFR Chapter I) and of dispositions of certain petitions previously received. The purpose of this notice is to improve the public's awareness of, and participation in, this aspect of FAA's regulatory activities. Publication of this notice and any information it contains or omits is not intended to affect the legal status of any petition or its final disposition.

**DATES:** Comments on petitions received must identify the petition docket number involved and must be received on or before: February 11, 1980.

**ADDRESSES:** Send comments on any petition in triplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC-24), Petition Docket No. ———, 800 Independence Avenue, SW., Washington, D.C. 20591.

**FOR FURTHER INFORMATION:** The petition, any comments received and a copy of any final disposition are filed in the assigned regulatory docket and are available for examination in the Rules Docket (AGC-24), Room 916, FAA Headquarters Building (FOB 10A), 800 Independence Avenue, SW, Washington, D.C. 20591; telephone (202) 426-3644.

This notice is published pursuant to paragraphs (c), (e), and (g) of § 11.27 of Part 11 of the Federal Aviation Regulations (14 CFR Part 11).

Issued in Washington, D.C., on January 11, 1980.

Edward P. Faberman,

*Acting Assistant Chief Counsel, Regulations and Enforcement Division.*

**Petitions for Exemptions**

| Docket No. | Petitioner | Regulations affected | Description of relief sought |
|---|---|---|---|
| 19943 | Airline Training Institute | 14 CFR §§ 61.157(d)(1) and 61.63(d)(2). | To allow their trainees to complete a practical test for the issuance of a type rating to be added to any grade of pilot certificate, in an airplane simulator as set forth in Appendix A of Part 61 in lieu of a flight test. |
| 19944 | Tracy A. Barnett | 14 CFR § 63.61 | To allow the petitioner to be certified as a flight engineer prior to his twenty-first birthday. |
| 19947 | Eastern Air Lines, Inc | 14 CFR § 121.417(c) | To allow a 12-month extension of the September 29, 1980, compliance date for completion of crewmember recurrent training involving the actual operation of each type emergency exit in the normal and emergency modes. |

Dispositions of Petitions for Exemptions

| Docket No. | Petitioner | Regulations affected | Description of relief sought—disposition |
|---|---|---|---|
| 12738 | Union de Transports Aeriens | 14 CFR Parts 21, 61, 63, and 91 | To amend Exemption No. 1775S, as amended, to include additional airmen in the appendix so that they may serve as flight crewmembers on leased, U.S.-registered aircraft. *Granted 12/31/79.* |
| 19167 | Rockwell International | CAR 4b.362(H) | To permit certification of the Model NA-265-65 with a 9-inch aisle width up to 25 inches from the floor and a 12-inch aisle width above 25 inches from the floor, instead of the required 12 and 18-inch widths, respectively. *Withdrawn 12/17/79.* |
| AP-CE-79-2 | The City of Columbia, Missouri | 14 CFR § 139.49(b)(2) | To defer compliance with the requirement to have available during air carrier user operations the specified fire-fighting and rescue equipment. *Granted 12/19/79.* |

[FR Doc. 80-1579 Filed 1-18-80; 8:45 am]
BILLING CODE 4910-13-M

## Research and Special Programs Administration

## Applications for Exemptions

**AGENCY:** Materials Transportation Bureau, D.O.T.

**ACTION:** List of Applicants for Exemptions.

**SUMMARY:** In accordance with the procedures governing the application for, and the processing of, exemptions from the Department of Transportation's Hazardous Materials Regulations (49 CFR Part 107, Subpart B), notice is hereby given that the Office of Hazardous Materials Regulations of the Materials Transportation Bureau has received the applications described herein.

**DATES:** Comment period closes February 20, 1980.

**ADDRESS COMMENTS TO:** Dockets Branch, Information Services Division, Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590.

Comments should refer to the application number and be submitted in triplicate.

**FOR FURTHER INFORMATION:** Copies of the application are available for inspection in the Dockets Branch, Room 8426, Nassif Building, 400 Seventh Street, S.W., Washington, D.C.

Each mode of transportation for which a particular exemption is requested is indicated by a number in the "Nature of Application" portion of the table below as follows: 1—Motor vehicle, 2—Rail freight, 3—Cargo vessel, 4—Cargo-only aircraft, 5—Passenger-carrying aircraft.

New Exemptions

| Application No. | Applicant | Regulation(s) affected | Nature of exemption thereof |
|---|---|---|---|
| 8345-N | International Minerals & Chemical Corp., Allentown, Pa. | 49 CFR 173.184 | To authorize shipment of nitrostarch, wet, with not less than 20% water in DOT Specification 12H fibre boxes with a 2 or 3 mil gusset type anti-static seamless polyethylene liner. (Mode 1.) |
| 8346-N | Mobay Chemcial Corp., Pittsburgh, Pa. | 49 CFR 173.247, 173.271 | To authorize shipment of thionyl chloride, sulfur chloride, sulfuryl chloride and phosphorus trichloride in non-DOT specification portable tanks. (Modes 1, 2, 3.) |
| 8347-N | Fabricated Metals Inc., San Leandro, Calif. | 49 CFR 173.118a, 173.119 | To manufacture, mark and sell DOT Specification 57 steel portable tank for shipment of various flammable and combustable liquids. (Mode 3.) |
| 8348-N | Frell Inc., Corpus Christi, Tex. | 49 CFR 173.119(a)(17), 173.245(a) (30), (31), 178.342-5, 178.343-5. | To manufacture, mark and sell non-DOT specification cargo tanks complying generally with DOT Specification MC-312 except for bottom outlet valve variation for the transport of flammable or corrosive waste liquids or semi solids. (Mode 1.) |
| 8350-N | Sherex Chemcial Co. Inc., Dublin, Ohio | 49 CFR 173.245(a)(31), 173.249(a)(1). | To authorize shipment of corrosive liquids and alkaline corrosive liquids, n.o.s., in DOT Specification MC-306 cargo tanks. (Mode 1.) |
| 8351-N | DuBois Chemical Co., Cincinnati, Ohio | 49 CFR 173.128, 173.245, 173.249. | To authorize shipment of various corrosive, and flammable liquids in a DOT Specification 57 steel portable tank. (Mode 1.) |
| 8352-N | Degussa Corp., Frankfurt, Germany | 49 CFR 173.154 | To authorize shipment of Ammonium persulfate and sodium persulfate in non-DOT specification plastic bags similar to DOT Specification 44P. (Modes 1, 2, 3.) |
| 8353-N | Thiokol Corporation, Huntsville, Ala. | 49 CFR 173.252-2(b) | To authorize shipment of ammonium perchlorate on a DOT Specification 56 portable tank equipped with an alternate closure device. (Mode 2.) |

This notice of receipt of applications for new exemptions is published in accordance with Section 107 of the Hazardous Materials Transportation Act (49 CFR U.S.C. 1806; 49 CFR 1.53(e)).

Issued at Washington, D.C., on January 11, 1980.

J. R. Grothe,

*Chief, Exemptions Branch, Office of Hazardous Materials Regulation, Materials Transportation Bureau.*

[FR Doc. 80-1610 Filed 1-18-80; 8:45 am]
BILLING CODE 4910-60-M

## Applications for Renewal or Modification of Exemptions or Applications To Become a Party to an Exemption

**AGENCY:** Materials Transportation Bureau, D.O.T.

**ACTION:** List of Applications for Renewal or Modification of Exemptions or Application to Become a Party to an Exemption.

**SUMMARY:** In accordance with the procedures governing the application for, and the processing of, exemptions from the Department of Transportation's Hazardous Materials Regulations (49 CFR Part 107, Subpart B), notice is hereby given that the Office of Hazardous Materials Regulation of the Materials Transportation Bureau has received the applications described herein. This notice is abbreviated to expedite docketing and public notice.

Because the sections affected, modes of transportation, and the nature of application have been shown in earlier Federal Register publications, they are not repeated here. Except as otherwise noted, renewal applications are for extension of the exemption terms only. Where changes are requested (e.g. to provide for additional hazardous materials, packaging design changes, additional mode of transportation, etc.) they are described in footnotes to the application number. Application numbers with the suffix "X" denote renewal; application numbers with the suffix "P" denote party to. These applications have been separated from the new applications for exemptions to facilitate processing.

**DATES:** Comment period closes February 11, 1980.

**ADDRESS COMMENTS TO:** Dockets Branch, Information Services Division, Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590.

Comments should refer to the application number and be submitted in triplicate.

**FOR FURTHER INFORMATION:** Copies of the applications are available for inspection in the Dockets Branch, Room 8426, Nassif Building, 400 7th Street, S.W., Washington, D.C.

| Application No. | Applicant | Renewal of exemption |
|---|---|---|
| 2582-X | Union Carbide Corporation, Tarrytown, New York | 2582 |
| 2582-X | Matheson Gas Products, Lyndhurst, New Jersey | 2582 |
| 2582-X | Air Products and Chemicals, Inc. Allentown, Pennsylvania | 2582 |
| 2973-X | PPG Industries, Inc., Pittsburgh, Pennsylvania | 2973 |
| 3737-X | Department of the Army, Washington, D.C | 3737 |
| 3992-X | E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware | 3992 |
| 3992-X | Dow Chemical Company, Plaquemine, La | 3992 |
| 5112-X | Department of the Army, Washington, D.C | 5112 |
| 5188-X | Department of Energy, Washington, D.C [1] | 5188 |
| 5454-X | Allied Chemical Corp., Morristown, New Jersey [2] | 5454 |
| 5454-X | Union Carbide Corporation, Tarrytown, New York | 5454 |
| 6113-X | San Diego Gas & Electric Company, San Diego, California | 6113 |
| 6299-X | Minnesota Valley Engineering, New Prague, Minnesota | 6299 |
| 6333-X | Allied Chemical Corp., Morristown, New Jersey | 6333 |
| 6464-X | Bay State Gas Company, Canton, Mass | 6464 |
| 6464-X | New Bedford Gas and Edison Light Co., New Bedford, Mass | 6464 |
| 6464-X | Philadelphia Gas Works, Philadelphia, Penn | 6464 |
| 6464-X | Public Service Electric and Gas Company, Newark, New Jersey | 6464 |
| 6464-X | New Jersey Natural Gas Company, Asbury Park, New Jersey | 6464 |
| 6464-X | Fall River Gas Company, Fall River, Mass | 6464 |
| 6464-X | South Jersey Gas Company, Folsom, New Jersey | 6464 |
| 6464-X | L. P. Transportation, Inc., Chester, New York | 6464 |
| 6700-X | Container Corporation of America, Wilmington, Delaware | 6700 |
| 6765-X | Gardner Cryogenics, Division of Carpenter Technology Corp., Bethlehem, Penn | 6765 |
| 6800-X | Plasti-Drum Corp., Lockport, Illinois | 6800 |
| 6883-X | Hedwin Corporation, Baltimore, Maryland [3] | 6883 |
| 6964-X | Union Carbide Corporation, Bound Brook, New Jersey | 6964 |
| 7060-X | Sajen Air, Inc., Chesterfield, Mo | 7060 |
| 7062-X | Bennett Industries, Pacoima, California | 7062 |
| 7072-X | Container Corporation of America, Wilmington, Delaware | 7072 |
| 7227-X | Lox Equipment Company, Livermore, California [4] | 7227 |
| 7257-X | Brewer Chemical Corp., Honolulu, Hawaii | 7257 |
| 7409-X | Puerto Rico Marine Management, Inc., Elizabeth, New Jersey | 7409 |
| 7465-X | State of Alaska, Juneau, Alaska | 7465 |
| 7502-X | Synder Industries, Inc., Lincoln, Nebraska | 7502 |
| 7526-X | Schering AG, Berlin, Germany | 7526 |
| 7528-X | Central Steel Drum Company, Newark, New Jersey | 7528 |
| 7549-X | Stauffer Chemical Company, Westport, Connecticut | 7549 |
| 7578-X | Department of the Army, Washington, D.C | 7578 |
| 7584-X | Orval Tank Containers, Paris, France | 7584 |
| 7584-X | Intsel Corporation, New York, New York | 7584 |
| 7584-X | Compagnie Des Container Reservoirs, Paris, France | 7584 |
| 7584-X | Eastern Mediterranean (Containers) Co. Ltd., London, England | 7584 |
| 7616-X | Missouri Pacific Railorad Co., St. Louis, Missouri | 7616 |
| 7835-X | Scientific Gas Products Inc., South Plainfield, New Jersey | 7835 |
| 7891-X | United Parcel Service, Greenwich, Connecticut | 7891 |
| 7897-X | Sea Containers Atlantic Limited, Hamilton, Bermuda | 7897 |
| 7897-X | Compagnie Des Containers Reservoirs, Paris, France | 7897 |
| 7897-X | Hugonnet, S.A., Paris, France | 7897 |
| 7897-X | T.I.C., S.A., Paris, France | 7897 |
| 7907-X | Hercules, Incorporated, Wilmington, Delaware | 7907 |
| 7938-X | Bignier Schmid-Laurent, Paris, France [5] | 7938 |
| 8035-X | NL Industries, Inc., Houston, Texas [6] | 8035 |
| 8087-X | Union Carbide Corporation, Bound Brook, New Jersey [7] | 8087 |

[1] Request authorization to add a similar pressure vessel to the terms of the exemption.

[2] Request renewal and to add water as an additional mode of transportation.

[3] To renew and to specifically identify certain commodities, to provide for top head design modifications, and to make editorial changes.

[4] To convert exemption to manufacture, mark, and sell type and to provide for certain tank design modifications.

[5] To authorize an additional portable tank model similar to those presently authorized except for compartments and certain appurtenances.

[6] Request to add a new explosive unit and a new packaging configuration to exemption.

[7] To authorize silver oxide, an oxidizing material, as an additional commodity to be shipped in DOT Specificat on 56 portable tank.

| Application No. | Applicant | Parties of exemption |
|---|---|---|
| 2805-P | Northern Petrochemical Company, Des Plaines, Illinois | 2805 |
| 4108-P | Purity Cylinder Gases, Inc. Grand Rapids, Michigan | 4108 |
| 6526-P | Coastal Chemical Corporation. Greenville, N.C. | 6526 |
| 6984-P | Deupree Distributing Co., Inc., Oklahoma City, Oklahoma | 6984 |
| 7005-P | Hoyer, S.A.G.L., Chiasso, Switzerland | 7005 |
| 7052-P | Environmental Devices Corp., Marion, Mass | 7052 |
| 7052-P | Ocean Research Equipment, Inc., Falmouth, Mass | 7052 |
| 7584-P | Sea Containers Atlantic Ltd., Hamilton, Bermuda | 7584 |
| 7607-P | Clayton Environmental Consultants, Inc., Southfield, Michigan | 7607 |
| 7952-P | Filo Chemical Corporation, New York, New York | 7952 |
| 8006-P | Toy Armory, Inc., Florence, Italy | 8006 |
| 8182-P | Societe Parisfer, Paris, France | 8182 |
| 8229-P | E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware | 8229 |
| 8304-P | Associated Couriers, Inc., St. Louis, Mo. | 8304 |

This notice of receipt of applications for renewal of exemptions and for party to an exemption is published in accordance with Section 107 of the Hazardous Materials Transportation Act (49 CFR U.S.C. 1806; 49 CFR 1.53(3)).

Issued in Washington, D.C., on January 11, 1980.

J. R. Grothe,

*Chief, Exemptions Branch, Office of Hazardous Materials Regulation, Materials Transportation Bureau.*

[FR Doc. 80-1611 Filed 1-18-80; 8:45 am]

BILLING CODE 4910-60-M

## DEPARTMENT OF THE TREASURY

### Internal Revenue Service

### Commissioner's Advisory Group, Open Meeting

There will be a meeting of the Commissioner's Advisory Group on January 31 and February 1, 1980, in Room 3313 of the Internal Revenue Service Building. The building is located at 1111 Constitution Avenue, N.W., Washington, D.C. The meeting will begin at 10:00 A.M. on January 31 and 9:00 A.M. on February 1. The agenda will include the following topics:

**Thursday, January 31, 1980**

Information to Practitioners (no ruling areas; prime issue list).

Audit Techniques and Related Issues, Including TCMP Audits and Use of Compliance Specialists.

Taxpayer Assistance and Information, Aid to Small Taxpayers.

Withholding as a Compliance Mechanism.

Relations Between Treasury and IRS (Report of the ABA Section on Taxation, Special Committee on Governmental Relationships of the Internal Revenue Service, *Tax Lawyer*, Fall, 1979).

Friday, February 1, 1980

IRS and Congress—Changes in IRS Practice and the Phenomenon of Legislative Proscription of Administrative Action. Oversight by IRS of its Litigation Positions. Discussion of Future Meetings.

The meeting, which will be open to the public, will be in a room that accommodates approximately 50 people. After the Committee members finish discussing the items on the agenda, there may be time for statements by non-members. If you want to make a statement at the meeting, or if you would like the committee to consider a written statement, please call or write to Lauralee A. Matthews, Assistant to the Commissioner, 1111 Constitution Avenue, N.W., Washington, D.C. 20224.

William E. Williams,

*Acting Commissioner.*

January 15, 1980.

[FR Doc. 80-1855 Filed 1-18-80; 8:45 am]

BILLING CODE 4830-01-M

## Art Advisory Panel; Closed Meeting

**AGENCY:** Internal Revenue Service, Treasury.

**ACTION:** Notice of Closed Meeting of Art Advisory Panel.

**SUMMARY:** A closed meeting of the Art Advisory Panel will be held in Washington, D.C.

**DATE:** The meeting will be held February 20 and 21, 1980.

**FOR FURTHER INFORMATION CONTACT:** Tom Hartnett, T:C:E:V, 1111 Constitution Avenue, N.W., Room 5547, Washington, D.C., 20224, Telephone No. 202-566-4427, (not a toll free number).

Notice is hereby given pursuant to section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. app. (1976), that a closed meeting of the Art Advisory Panel will be held on February 20 and 21, 1980, beginning at 10:00 a.m. in Room 3313, Internal Revenue Building, 1111 Constitution Avenue, N.W., Washington, D.C. 20224.

The agenda will consist of the review and evaluation of the acceptability of market value appraisals of works of art involved in Federal Income, Estate, or Gift tax returns. This will involve the discussion of material in individual tax returns made confidential by the provisions of section 6103 of Title 26 of the United States Code.

A determination as required by section 10(d) of the Federal Advisory Committee Act has been made that these meetings are concerned with matters listed in section 552b(c) (3), (4), (6), and (7) of Title 5 of the United States Code, and that the meetings will not be open to the public.

This document does not meet the criteria for significant regulations set forth in paragraph 8 of the Treasury Directive appearing in the Federal Register for Wednesday, November 8, 1978. (43 FR 52122.)

William E. Williams,

*Acting Commissioner.*

[FR Doc. 80-1885 Filed 1-17-80; 10:03 am]

BILLING CODE 4830-01-M

## VETERANS ADMINISTRATION

### Cooperative Studies Evaluation Committee; Meeting

The Veterans Administration gives notice pursuant to Pub. L. 92-463 that a meeting of the Cooperative Studies Evaluation Committee, authorized by 38 U.S.C. 4101, will be held at the Holiday Inn—Airport Lakes, 1101 N.W. 57th Avenue, Miami, FL on February 4, 5, and 6, 1980. The meeting will be for the purpose of reviewing proposed cooperative studies and advising the Veterans Administration on the relevance and feasibility of the studies, the adequacy of the protocols, the scientific validity and the propriety of technical details, including involvement of human subjects. The Committee advises the Director, Medical Research Service, through the Chief of the Cooperative Studies Program, on its findings.

The meeting will be open to the public up to the seating capacity of the room from 8 to 8:30 a.m., February 4, 5, and 6, to discuss the general status of the program. To assure adequate accommodations, those who plan to attend should contact Dr. James A. Hagans, Coordinator of the Committee, Veterans Administration Central Office, Washington, DC. (202-389-3702) prior to January 25.

The meeting will be closed from 8:30 a.m. to 6:25 p.m., February 4; and February 5, from 8:30 a.m. to 6:15 p.m., and 8:30 a.m. to 2:15 p.m., February 6, for consideration of specific proposals in accordance with provisions set forth in Subsection 10(d) of Public Law 92-463, as amended by Public Law 94-409, and Subsection 552b(c)(6) of Title 5, United States Code. During this portion of the meeting, discussion and decisions will deal with qualifications of personnel conducting the studies and the medical records of patients who are study subjects, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Dated: January 15, 1980.

Max Cleland,

*Administrator.*

[FR Doc. 80-1814 Filed 1-18-80; 8:45 am]

BILLING CODE 8320-01-M

## INTERSTATE COMMERCE COMMISSION

### Motor Carrier Temporary Authority Applications

The following are notices of filing of applications for temporary authority under section 210a(a) of the Interstate Commerce Act provided for under the provisions of 49 CFR 1131.3. These rules provide that an original and six (6) copies of protests to an application may be filed with the field official named in the Federal Register publication no later than the 15th calendar day after the date the notice of the filing of the application is published in the Federal Register. One copy of the protest must be served on the applicant, or its authorized representative, if any, and the protestant must certify that such service has been made. The protest must identify the operating authority upon which it is predicated, specifying the "MC" docket and "Sub" number and quoting the particular portion of authority upon which it relies. Also, the protestant shall specify the service it can and will provide and the amount and type of equipment it will make available for use in connection with the service contemplated by the TA application. The weight accorded a protest shall be governed by the completeness and pertinence of the protestant's information.

Except as otherwise specifically noted, each applicant states that there will be no significant effect on the quality of the human environment resulting from approval of its application.

A copy of the application is on file, and can be examined at the Office of the Secretary, Interstate Commerce Commission, Washington, D.C., and also in the ICC Field Office to which protests are to be transmitted.

Note.—All applications seek authority to operate as a common carrier over irregular routes except as otherwise noted.

### Motor Carriers of Property

Notice No. 234

MC 26396 (Sub-315TA), filed November 27, 1979. Applicant: POPELKA TRUCKING CO. d.b.a. THE WAGGONERS, P.O. Box 31357, Billings, MT 59107. Representative: Bradford E. Kistler, P.O. Box 82028, Lincoln, NE

68501. (1) *Animal traps* and (2) *parts and materials used in the manufacture of animal traps* between Mahaffey, PA, on the one hand, and, on the other, points in CO, ID, IL, IN, LA, KS, KY, MI, MN, MO, MT, NE, NY, ND, OH, OR, SD, TN, WA, WI and WY, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Montgomery Steel Trap, Inc., Box 121, Mahaffey, PA 15757. Send protests to: Paul J. Labane, DS, ICC, 2602 First Avenue North, Billings, MT 59101.

MC 26396 (Sub-316TA), filed November 30, 1979. Applicant: POPELKA TRUCKING CO. d.b.a. THE WAGGONERS, P.O. Box 31357, Billings, MT 59107. Representative: Barbara S. George (same address as applicant). (1) *Agricultural chemicals* (except in bulk) from Muscatine and Des Moines, IA, to points in IN; and (2) *raw materials and supplies utilized in the manufacture and sale of agricultural chemicals* from points in OH to Luling, LA and Houston, TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Monsanto Co., 800 North Lindbergh Blvd., St. Louis, MO 63166. Send protests to: Paul J. Labane, DS, ICC, 2602 First Avenue North, Billings, MT 59101.

MC 28956 (Sub-23TA), filed December 4, 1979. Applicant: McKAY'S TRUCK LINE, INC., 908 North Pacific Highway, P.O. Box 634, Albany, Oregon 97321. Representative: Lawrence V. Smart, Jr., 419 N.W. 23rd Avenue, Portland, Oregon 97210, 503–226–3755. RADIOACTIVE WASTE MATERIAL from Millersburg and Portland, OR to the Hanford Works, U.S. Atomic Energy Commission Reservation near Richland, WA, for 180 days. Supporting shipper(s): Teledyne Wah Chang, P.O. Box 460, Albany, OR 97321. Send protests to: A. E. Odoms, DS, ICC, 114 Pioneer Courthouse, 555 S. W. Yamhill Street, Portland, Oregon 97204.

MC 41136 (Sub-28TA), filed November 1, 1979. Applicant: FLEET CARRIER CORP., 526 South Boulevard East, Pontiac, MI 48053. Representative: Richard P. Kuney (same address as applicant). *Motor vehicles,* from Ft. Wayne, IN and Springfield, OH to: Points and places in the United States (Excluding AK and HI) for 180 days. Supporting shipper(s): International Harvester, 401 N. Michigan Ave., Chicago, IL 60604. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 42266 (Sub-3TA), filed November 5, 1979. Applicant: LANCASTER & NEW YORK MOTOR FREIGHT SERVICE, INC., R.D. #2, Box 208, Elizabethtown, PA 17022. Representative: James W. Hagar, Esq., 100 Pine St., Harrisburg, PA 17022. (1) *Cocoa beans, cocoa butter, cocoa press cake, chocolate liquor, in blocks and in bags, and cocoa crumb in bags,* from Philadelphia, PA and its commerical zone, Camp Hill, PA and its commercial zone, and Mechanicsburg, PA and its commercial zone; and (2) *Confectionary (except in bulk) in mechanically refrigerated equipment,* from, Elizabethtown, PA to points in MD, NJ, VA, Philadelphia, PA and DC, and from Hackettstown, NJ to points in MD, NJ, PA, VA, and DC, restricted to traffic originating at or destined to the facilities of M & M Mars, Inc. at Hackettstown, NJ, Elizabethtown, PA and its commercial zone, Camp Hill, PA and its commercial zone, and Mechanicsburg, PA and its commercial zone, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): M & M Mars, Division of Mars, Inc., High St., Hackettstown, NJ 07840. Send protests to: I.C.C., 101 N. 7 St., Philadephia, PA 19106.

MC 42487 (Sub-949TA), filed October 9, 1979. Applicant: CONSOLIDATED FREIGHTWAYS CORP. OF DELAWARE, 175 Linfield Drive, Menlo Park, CA 94025. Representative: V. R. Oldenburg, P.O. Box 3062, Portland, OR 97208. *General commodities,* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and commodities requiring special equipment). Serving the facilities of Consolidated Metco, Inc., at Monroe, NC, as an off-route point in connection with carrier's presently authorized regular route operations. Applicant intends to tack to its existing authority and any authority it may acquire in the future. The facilities of Consolidated Metco, Inc., at Monroe, NC, will be off-route to the following service routes of Applicant. MC 42487 (Sub-744) (A) *General commodities,* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and commodities requiring special equipment, between Asheville, NC and Winston-Salem, NC, serving all intermediate points: From Asheville over U.S. Hwy 74 to Charlotte, NC thence over U.S. Hwy 29 to Lexington, NC, thence over U.S. Hwy 52 to Winston-Salem, NC and return over the same route. (The Commission authorized Applicant to acquire and merge Burris Express, Inc., under Docket No. MC–F–12497. The transaction was consummated January 14, 1976. A Certificate has not yet been issued in the name of Applicant by the Commission. When the Certificate is issued, it will be identified as Docket No. MC 42487 Sub 835). *General commodities,* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and commodities requiring special equipment. Route 1. Between Charlotte and Carthage over NC Hwy 27. (a) Serving following off-route points: (1) Midland on NC Hwy 601, (2) Oakboro on NC Hwy 205, (3) Badin on NC Hwy 740, (4) Mount Gilead over NC Hwy 73 and 109. Service authorized to all intermediate points in connection with Routes (1) through (23). Route 32. From Charlotte to Greensboro over U.S. Hwy 29 and 29–A. Return over the above routes (32 through 45) serving all intermediate points. Route 52. From Charlotte to North Wilkesboro over NC Hwy 27 from Charlotte to Lincolnton, via Mount Holly, thence over U.S. Hwy 321 from Lincolnton to Conover, via Newton, thence over NC Hwy 16 to intersection U.S. Hwy 421, thence over U.S. Hwy 421 to intersection with NC Hwy 18, thence over NC Hwy 18 to North Wilkesboro. Route 53. From Charlotte to the Virginia Line over NC Hwy 115 (formerly U.S. Hwy 21) to intersection with U.S. Hwy 21 north of Mooresville, thence over U.S. Hwy 21 via Statesville, Brooks Cross Roads, Elkin, Roaring Gap and Sparta; from Statesville to Taylorsville over NC Hwy 90 via Stoney Point. Return over the aforesaid routes (52 through 56) serving all intermediate points. The authority granted herein (routes 52 through 56) to extend that it duplicates any authority heretofore granted to or held by carrier shall not be construed as conferring more than one operating right. Route 73. Transportation of general commodities, (except those requiring special equipment, over the following route: From Charlotte, NC, over NC Hwy No. 49 to junction of NC Hwy No. 160, thence over NC Hwy 160 to junction of U.S. Hwy 29 (at or near Charlotte), and return over the same route, serving all intermediate points for 180 days. The proposed authority will be tacked or joined with our authority in Docket No. MC 42487 Sub 744 and authority acquired from Burris Express, Inc., as an off-route point. We will in turn tack our Sub 744 authority and the authority acquired from Burris Express, Inc., with other present authority of Applicant at such points as Charlotte, NC, Winston-Salem, NC, Cincinnati, OH, Louisville, KY, and Atlanta, GA to permit service to and from points throughout Applicant's system. Under Docket No. MC–F–12497, the Commission authorized Applicant to acquire and merge the authority of Burris Express, Inc. The transaction was

consummated January 14, 1976. A Certificate covering this authority has not yet been issued in the name of Applicant by the Commission. When the Certificate is issued it will be identified as Docket No. MC 42487 Sub 835. The facilities here involved are off-route to Routes 1, 32, 52, 53, and 73 of the Burris Express, Inc., authority and our Sub 744. Applicant proposes to interline traffic with its present connecting carriers at authorized interline points throughout the United States as provided in tariffs on file with the Interstate Commerce Commission. Supporting shipper(s): Consolidated Metco, Inc., 780 Patton Avenue—P.O. Box 907, Monroe, NC 56069. Send protests to: D/S Neil C. Foster, 211 Main, Suite 500, San Francisco, CA 94105

MC 42487 (Sub-952TA), filed September 21, 1979. Applicant: CONSOLIDATED FREIGHTWAYS CORP. OF DELAWARE, 175 Linfield Drive, Menlo Park, CA 94025. Representative: V. R. Oldenburg, P.O. Box 3062, Portland, OR 97208. Common carrier; regular routes: *General commodities,* (except those of unusual value, livestock, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, commodities requiring special equipment and those injurious or contaminating to other lading). Serving the facilities of United Steel Products at Montgomery, MN, as an off-route point in connection with carrier's otherwise authorized regular route operations. Supporting Shippers: United Steel Products Company, P.O. Box 80, Hickory and 4th N.E., Montgomery, MN 56069. Send protests to: D/S N. C. Foster, 211 Main, Suite 500, San Francisco, CA 94105.

Note.—Applicant intends to tack to its existing authority and any authority it may acquire in the future.

MC 42487 (Sub-954TA), filed October 25, 1979. Applicant: CONSOLIDATED FREIGHTWAYS CORP. OF DELAWARE, 175 Linfield Drive, Menlo Park, CA 94025. Representative: V. R. Oldenburg, P.O. Box 3062, Portland, OR 97208. Common carrier; regular routes: *General commodities,* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and commodities requiring special equipment). (1) Between Wilmington, DE and Salisbury, MD: From Wilmington over U.S. Hwy 13 to Salisbury, and return over the same route. (2) Between Washington, DC and Salisbury, MD: From Washington over U.S. Hwy 50 to Salisbury, and return over the same route. (3) Between Baltimore, MD and junction MD 2 and U.S. Hwy 50: From Baltimore over MD Hwy 2 to junction MD Hwy 2 and U.S. Hwy 50, and return over the same route. (4) Between junction U.S. Hwy 113 and U.S. Hwy 13 (near Dover, DE) and Salisbury, MD: From junction U.S. Hwy 113 and U.S. Hwy 13 (near Dover, DE) over U.S. Hwy 113 to junction U.S. Hwy 13 (at or near Pocomoke City, MD), then over U.S. Hwy 13 to Salisbury, and return over the same route. (5) Between junction U.S. Hwy 50 and U.S. Hwy 301 (at or near Queenstown, MD) and junction DE Hwy 299 and U.S. Hwy 13 (at or near Odessa, DE): From junction U.S. Hwy 50 and U.S. Hwy 301 (at or near Queenstown, MD), over U.S. Hwy 301 to junction DE Hwy 299 (at or near Middletown, DE), then over DE Hwy 299 to junction DE Hwy 299 and U.S. Hwy 13 (at or near Odessa, DE), and return over the same route. (6) Between Ocean City, MD and junction MD Hwy 1 and U.S. Hwy 113 (near Milford, DE): From Ocean City over MD Hwy 528 to the MD-DE state line, then over MD Hwy 1 to junction MD Hwy 1 and U.S. Hwy 113, (near Milford, DE), and return over the same route. (7) Between Ocean City, MD and junction U.S. Hwy 50 and U.S. Hwy 113 (near Berlin, MD): From Ocean City over U.S. Hwy 50 to junction U.S. Hwy 50 and U.S. Hwy 113 (near Berlin, MD), and return over the same route. Serving all intermediate points in connection with the routes described above and all points in Kent, New Castle, and Sussex Counties, DE and Caroline, Cecil, Dorchester, Kent, Queen Annes, Somerset, Talbot, Wicomico, and Worcester Counties, MD as either intermediate or off-route points for 180 days. Applicant seeks to serve all points in the commercial zones of points of authority sought above. Applicant also intends to tack the authorities here sought with present authorities at Wilmington, DE, Baltimore, MD, and Washington, DC. Authority at Wilmington, DE, Baltimore, MD, and Washington, DC, is found in MC 42487 Sub 578. Also, authority at Baltimore, MD is found in MC 42487 Sub 843. Applicant proposes to interline traffic with its present connecting carriers at authorized points throughout the United States as provided in tariffs on file with the Interstate Commerce Commission. Supporting shippers: There are 81 statements in support attached to this application which may be examined at the ICC in Washington, DC., or copies of which may be examined in the field office named below. Send protests to: D/S N. C. Foster, 211 Main—Suite 500, San Francisco, CA 94105.

Note.—Applicant intends to tack the authorities described above. Also, applicant intends to tack to its existing authority and any authority it may acquire in the future.

MC 51146 (Sub-789TA), filed November 19, 1979. Applicant: SCHNEIDER TRANSPORT, INC., P.O. Box 2298, Green Bay, WI 54306. Representative: Neil DuJardin (same address as applicant). *Chemicals, plastics, plastic products, magnesium alloy engraving plates and coated mill products* between facilities of Dow Chemical Corp. at Findlay, OH and points in the US in and east of ND, SD, NE, KS, OK & TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Dow Chemical USA, 3441 N. Main St., Findlay, OH 45840. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 51146 (Sub-790TA), filed November 29, 1979. Applicant: SCHNEIDER TRANSPORT, INC., P.O. Box 2298, Green Bay, WI 54306. Representative: Neil DuJardin (same address as applicant). *Containers and container closures* (1) from facilities of The Continental Group, Inc., at or near Perry & Atlanta, GA to Austin, IN; Cincinnati, OH; Memphis, TN; & Houston, TX; and (2) from Houston & Longview, TX to St. Louis, MO; Quincy, IL; Cincinnati, Columbus & Worthington, OH; Austin & Indianapolis, IN; St. Joseph, Benton Harbor, Shoreham & Holland, MI; and Memphis, TN, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Continental Can Co., 5401 W. 65th St., Chicago, IL 60638. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 55896 (Sub-128TA), filed October 30, 1979. Applicant: R-W SERVICE SYSTEM, INC., 20225 Goddard Road, Taylor, MI 48180. Representative: George E. Batty (same address as applicant). *Plastic containers and plastic articles,* from Florence, KY to OH, IN and IL; Cincinnati, to Buckner, KY for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Owens-Illinois, Inc., P.O. Box 1035, Toledo, OH 43666. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 91306 (Sub-22TA), filed December 3, 1979. Applicant: JOHNSON BROS., TRUCKERS, INC., 1858 9th Ave., NE, Hickory, NC 28601. Representative: Eric Meierhoefer, Suite 423, 1511 K Street, NW, Washington, DC 20005. *(1) Electrical wiring plugs, receptacles, rosettes, sockets, or screw type fuse plugs, extension cords, power supply cords, insulated and noninsulated*

*copper wire, and materials and supplies used in the manufacture thereof,* between points in RI and South Attleboro, MA, on the one hand, and, on the other, Morgantown and West Jefferson, NC; and *(2) plastic materials* (other than expanded), from North Tonawanda and Buffalo, NY to points in RI; South Attleboro, MA; and Morgantown and West Jefferson, NC, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Levition Manufacturing Company, Inc., 5925 Little Neck Parkway, Little Neck, NY 11362. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd–Rm CC516, Charlotte, NC 28205.

MC 102616 (Sub-1018), filed October 24, 1979. Applicant: COASTAL TANK LINES, INC., 250 North Cleveland-Massillon Road, Akron, OH 44313. Representative: Wendell M. Kiefaber (same address as applicant). *Methanol, in bulk, in tank vehicles,* from Plaquemine, LA to Norwood, OH, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): MCB Manufacturing Chemists, Inc., 2909 Highland Avenue, Norwood, OH 45212. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 102616,(Sub-1019TA) filed November 5, 1979. Applicant: COASTAL TANK LINES, INC., 250 North Cleveland-Massillon Rd., Akron, OH 44313. Representative: Wendell M. Kiefaber (same address as applicant). *Petroleum and petroleum products,* in bulk, in tank vehicles, from (1) Warren, PA to points in OH (except Cleveland, Geneva, Strongville, Ashtabula, Kent, Ravenna, Girard, Warren, Hubbard, Canton, Columbus, Marion, and Sandusky); and (2) from Niles, OH to Venango County, PA (except Barkeyville, PA), for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): United Refining Co., P.O. Box 780, Warren, PA 16365. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7 St., Philadelphia, PA 19106.

MC 102616 (Sub-1020TA) filed November 19, 1979. Applicant: COASTAL TANK LINES, INC., 250 North Cleveland-Massillon Rd., Akron, OH 44313. Representative: Wendell M. Kiefaber (same as applicant). *Petroleum and petroleum products, in bulk, in tank vehicles,* from Niles, OH to Clarion County, PA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Boron Oil Company, Div. Standard Oil Company of Ohio, 313 Midland Bldg., Cleveland, OH 44115. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 102616 (Sub-1021TA) filed November 21, 1979. Applicant: COASTAL TANK LINES, INC., 250 North Cleveland-Massillon Rd., Akron, OH 44313. Representative: Wendell M. Kiefaber (same address as applicant). *Butane Mix (hydrocarbons), in bulk, in tank vehicles,* from Wayne City, IL to E. Mount Carmel, IN and from E. Mount Carmel, IN to Kilgore, TX and Pana, IL for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Crystal Oil Co., 1515 Arapahoe St., Denver, CO 80202. Martin Gas Sales, Inc., P.O. Box Drawer 191, Kilgore, TX 75662. Send protests to: I.C.C., 101 N. 7 St., Philadelphia, PA 19106.

MC 107006 (Sub-5TA) filed November 9, 1979. Applicant: THOMAS KAPPEL, INC., P.O. Box 1408, Springfield, OH 45501. Representative: John L. Alden, 1396 W. 5th Ave., Columbus, OH 43212. Contract carrier-irregular routes: *wood and wood products,* between the facilities of Buckeye Wood Products Inc. and its subsidiaries Union Cabinet Co. and Paint Valley Pallet Co. at or near South Charleston, Milford Center and Bainbridge, OH on the one hand, and, on the other, points in IL, IN, IA, KY, MI, MO, NY, PA, TN, WI, and WV, under a continuing contract or contracts with Buckeye Wood Products, Inc., Union Cabinet Co. and Paint Valley Pallet Co., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Buckeye Wood Products Inc., 9005 Columbus-Cincinnati Rd., S. Charleston, OH 45368. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Philadephia, PA 19106.

MC 107496 (Sub-1258TA) filed November 6, 1979. Applicant: RUAN TRANSPORT CORPORATION, 666 Grand Ave., Des Moines, IA 50309. Representative: Kenneth L. Kessler (same address as applicant) *residual fuel oil, in bulk, in tank vehicles,* from St. Joseph, MI, to Burns Harbor, IN, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Enterprise Oil & Gas Co., 14445 Lynwood Ave., Detroit, MI 48238. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 107496 (Sub-1259TA) filed November 6, 1979. Applicant: RUAN TRANSPORT CORPORATION, 666 Grand Ave., Des Moines, IA 50309. Representative: Ken Kessler (same address as applicant) *liquid argon, liquid nitrogen, liquid oxygen, liquid hydrogen, and compressed gases, in bulk, in tank vehicles,* from Michoud, Plaquemine, and Donaldsonville, LA; Theodore, AL; Yazoo City, MS; and Freeport, LaPorte, Beaumont, Victoria, and Houston, TX, and its commercial zone to points in the United States (except AK and HI), for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Airco Industrial Gases, 7950 Blankenship Dr., Houston, TX 77055. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 109376 (Sub-20TA) filed November 29, 1979. Applicant: SKINNER TRANSFER CORP, P.O. Box 284, Reedsburg, WI 53959. Representative: Richard Westley, 4506 Regent St., Suite 100, Madison, WI 53705. *Agricultural limestone* from Sussex, WI and points in its Commercial Zones, as defined by the Commission, to points in the Upper Peninsula of MI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Vulcan Materials Co., N52 W23096 Lisbon Rd., Sussex, WI 53089. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 112696 (Sub-66TA) filed October 9, 1979. Applicant: HARTMANS, INCORPORATED, P.O. Box 898, Harrisonburg, VA 22801. Representative: Lawrence E. Lindeman, 425 13th St., NW., Suite 1032, Washington, DC 20004. *Malt beverages and wine,* from Pabst, GA and Secaucus and Newark, NJ, to points in Rockingham County, VA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Gamby Distributing Company, Inc., Route 1, Box 85G, Mt. Crawford, VA 22841. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 113106 (Sub-86TA) filed October 17, 1979. Applicant: THE BLUE DIAMOND COMPANY, 4401 East Fairmount Ave., Baltimore, MD 21224. Representative: Chester A. Zyblut, 1030 Fifteenth St., NW., Suite 366, Washington, DC 20005. *Paper and paper products,* from Union Camp Corporation's plantsites at or near Lancaster, PA; Clifton, NJ; Eighty-Four, PA; New Hope, PA; and Solon, OH, to points in VA, WV, PA, DE, DC, MD, NY, NJ and OH, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Union Camp Corporation, 1600 Valley Road, Wayne, NJ 07470. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 113406 (Sub-16TA) filed October 9, 1979. Applicant: DOT LINES, INC., 1000 Findlay Rd., P.O. Box 1526, Lima, OH 45802. Representative: Paul F. Beery, 275 East State St., Columbus, OH 43215. *Fiberboard or paperboard fillers or partitions,* from the plantsite of

Clevepak Corporation at or near Eaton, IN to points in OH, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Clevepak Corporation, 925 Westchester Ave., White Plains, NY 10604. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 118776 (Sub-43TA) filed October 15, 1979. Applicant: GULLY TRANSPORTATION, INC., 3820 Wisman Road, Quincy, IL 62301. Representative: Frank W. Taylor, Jr., Suite 600, 1221 Baltimore Avenue, Kansas City, MO 64105. *Printing paper other than newsprint, not printed or imprinted,* from Burlington, IA, to Little Rock, AR; Memphis, TN; and Gulfport, MS for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Georgia-Pacific Corporation, 3355 Agency, Burlington, IA 52601. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 124236 (Sub-104TA) filed November 29, 1979. Applicant: CHEMICAL EXPRESS CARRIERS, INC., 4645 North Central Expressway, Dallas, TX 75205. Representative: J. F. Leisering, Jr. (address same as above). *Motor fuel, in tank trucks,* from Mt. Pleasant, TX to points in OK for 180 days. Underlying ETA for 90 days filed. Supporting shipper(s): Dilries Oil Inc., Box 426, 8–12th NE., Ardmore, OK 73401. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 124236 (Sub-105TA) filed November 29, 1979. Applicant: CHEMICAL EXPRESS CARRIERS, INC., 4645 North Central Expressway, Dallas, TX 75205. Representative: J. F. Leisering, Jr. (address same as above). *Gasoline* from Tyler, TX to Bossier City and Monroe, LA for 180 days. Underlying ETA for 90 days filed. Supporting shipper(s): The Southland Corporation, 411 Colonial Dr., Baton Rouge, LA 70806. Send protests to: Opal M. Jones, TCS, ICC, 819 Taylor St., 9A27 Federal Bldg., Fort Worth, TX 76102.

MC 124306 (Sub-76TA) filed December 3, 1979. Applicant: KENAN TRANSPORT COMPANY, INCORPORATED, PO Box 2729, Chapel Hill, NC 27514. Representative: W. David Fesperman (same as above). *Polyester chips, in bulk, in tank vehicles,* from Rohm and Haas Company at Cedar Creek, NC near Fayetteville, NC to Painesville, OH, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Rhom and Haas Company, PO Box 630, Fayetteville, NC 28302. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd–Rm CC516, Charlotte, NC 28205.

MC 128746 (Sub-59TA) filed November 28, 1979. Applicant: D'AGATA NATIONAL TRUCKING COMPANY, 3240 South 61 St., Philadelphia, PA 19153. Representative: Edward J. Kiley, 1730 M. St., NW, Suite 501, Washington, D.C. 20036. *Malt beverages,* in containers, from the plansite and facilities of Miller Brewing Company, at or near Fulton, NY and Eden, NC to points in OH and MI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Miller Brewing Company, 3939 W. Highland Blvd., Milwaukee, WI 53201. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 129526 (Sub-8TA) filed October 19, 1979. Applicant: FACTOR TRUCK SERVICE, INC., 2607 Old Rodgers Road, Bristol, PA 19007. Representative: Robert B. Einhorn, 3220 PSFS Bldg., 12 South 12th Street, Philadelphia, PA 19107. *Contract carrier*-irregular route: *Printed matter and catalogs,* from Salem Effingham, and Mt. Vernon, IL to points in PA, DE, MD, NY, NJ, CT and DC, for 180 days. Supporting shipper(s): World Color Press, Inc., P.O. Box 1248, Effingham, IL 62401. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phia., PA 19106.

MC 129526 (Sub-9TA) filed October 19, 1979. Applicant: FACTOR TRUCK SERVICE, INC., 2607 Old Rodgers Rd., Bristol, PA 19007. Representative: Robert B. Einhorn, Esq., 3220 P.S.F.S. Bldg., 12 S. 12 St. Philadelphia, PA 19107. Contract carrier-irregular routes: *Grinding wheels and materials used in the manufacture of grinding wheels,* between Philadelphia, PA and Salem, IL, for 180 days. Supporting shipper(s): Universal Grinding Wheel Co., 8301 Torresdale Ave., Philadelphia, PA 19136. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7 St., Philadelphia, PA 19106.

MC 134286 (Sub-135TA) filed November 19, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). *(1) Laboratory equipment and supplies, vis. laboratory chemicals, glassware, plastic products, instrumentation, electrical appliances, and similar apparatus normally used in the laboratory trade; and (2) empty pallets* from Los Angeles, CA and Denver, CO to the facilities of Fisher Scientific Company at Indiana, PA and Somerville, NJ for 180 days. Restricted to traffic destined to Fisher Scientific Company. An underlying ETA seeks 90 days authority. Supporting shipper(s): Fisher Scientific Company, Alan F. Sabol, Director of Distribution, 711 Forbes Avenue, Pittsburgh, PA 15219. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th Street, Omaha, NE 68102.

MC 134286 (Sub-136TA) filed November 19, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). (1) Diagnostic chemicals (except in bulk) in vehicles equipped with mechanical refrigeration from the facilities of Fisher Scientific Company at Orangeburg, NY to points in all states in the U.S. (except AK, CT, DE, HI, MD, ME, NJ, NY, PA, RI, VT and D.C.; (2) Laboratory chemicals and laboratory equipment and supplies (except in bulk) from the facilities of Fisher Scientific Company at or near Bridgewater Township, NJ to Rochester, NY; and (3) Damaged and refused laboratory chemicals, laboratory equipment and supplies and pallets from Atlanta, GA; Chicago, IL; Cincinnati and Cleveland, OH; Houston, TX; Los Angeles, CA; Orlando, FL; Pittsburgh, PA; St. Louis, MO; Raleigh, NC; and Rochester, NY to the facilities of Fisher Scientific Company in or near Bridgewater Township, NJ for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Fisher Scientific Company, Alan F. Sabol, Director of Distribution, 711 Forbes Avenue, Pittsburgh, PA 15219. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 134286 (Sub-137TA) filed November 19, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). *Laboratory furniture, vis. tables, sinks, stools, cabinets, fume hoods, etc.* from the facilities of Labconco at Kansas City, MO to the facilities of Fisher Scientific Company at Indiana, PA; Somerville, NJ; and Springfield, NJ for 180 days. Restricted to traffic destined to Fisher Scientific Company. An underlying ETA seeks 90 days authority. Supporting shipper(s): Fisher Scientific Company, Alan F. Sabol, Director of Distribution, 711 Forbes Avenue, Pittsburgh, PA 15219. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th Street, Omaha, NE 68102.

MC 134286 (Sub-138TA), filed November 21, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). *(1) Chemicals, plastics and plastic materials; and (2) materials and supplies used in the marketing or*

*production of these commodities (except in bulk)* (a) from Houston and Deer Park, TX to points in AL, AR, IL, IN, OH, OK, KS, NE, MN, GA, FL, SC, NC, TN, ME, NH, NY, VT, MA, CT and RI; (b) from Tuscola, IL to points in IA, MI, IN, OH, PA, NY, NE, NH, NJ, CT, RI, MA, VT, ME, KY, WV, VA, MD, DE, D.C.; (c) from Indianapolis, IN to points in IA, MI, OH, PA, NY, NE, NJ, CT, RI, MA, VT, NH, ME, KY, WV, VA, MD, DE, and D.C.; and (d) from points in OH to points in MT, WY, CO, MN, NE, IA, IL, ID, UT, AZ, WA, OR, NV and CA for 180 days. Restricted to the transportation of traffic originating at or destined to the facilities of U.S. Industrial Chemicals Co., Division of National Distillers & Chemical Corporation. An underlying ETA seeks 90 days authority. Supporting shipper: U.S. Industrial Chemicals Co., Division of National Distillers & Chemical Corp., Ronald Gubernot, 99 Park Avenue, New York, NY 10016. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 134286 (Sub-139TA), filed November 29, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as above). *Frozen bagels (except in bulk)* from the facilities of Lender's Bagel Bakery at or near Buffalo, NY to IL (except Chicago), MO (except Kansas City and St. Louis), CO (except Denver), WI (except Milwaukee), NE (except Omaha), MN (except Minneapolis), IA, KS, MD, DE, NC, SC, VA, GA, FL, OK and D.C. for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Lender's Bagel Bakery, Inc., Sam Solodky, Chief Executive Officer, 75 Empire Drive, Buffalo, NY 14224. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 134716 (Sub-12TA), filed December 5, 1979. Applicant: RUSH TRUCKING, INC., 200 Southwest 19th St., Ft. Lauderdale, FL 33315. Representative: Kim G. Meyer, P.O. Box 56387, Atlanta, GA 30343. Contract Carrier—Irregular Route: *Merchandise, equipment and supplies sold, used or distributed by a manufacturer of cosmetics and toilet preparations* from points in Orange County, FL to Brevard, Citrus, Flagler, Hernando, Indian River, Lake, Okeechobee, Osceola, Orange, Polk, Seminole, St. Lucie, Sumter and Volusa counties, FL for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Avon Products, Inc., 2200 Cotillion Drive, Atlanta, GA 30302. Send protests to: Donna M. Jones, Monterey Building, Suite 101, Miami, FL 33166.

MC 135046 (Sub-19TA), filed November 19, 1979. Applicant: ARLINGTON J. WILLIAMS, INC., 1398 South DuPont Highway, Smyrna, DE 19977. Representative: S. W. Earnshaw, 833 Washington Bg., Washington, DC 20005. *Plastic containers (palletized, shrink-wrapped),* from Yorkville, IL and LeCenter, MN to Milford, DE, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: L. D. Caulk Co., Lakeview & Clarke Ave., Milford, DE 19963. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 136786 (Sub-189TA), filed November 9, 1979. Applicant: ROBCO TRANSPORTATION, INC., 4475 N.E. 3rd St., Des Moines, IA 50313. Representative: Stanley C. Olsen, Jr., Suite 411, 7400 Metro Blvd., Edina, MN 55435. *Foodstuffs (other than frozen)* from the facilities of Chicago Candy Association in the Chicago, IL, commercial zone to points in OR and WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Chicago Candy Association, 2535 North 25th Avenue, Franklin Park, IL 60131. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 136786 (Sub-190TA), filed November 9, 1979. Applicant: ROBCO TRANSPORTATION, INC., 4475 N.E. 3rd St., Des Moines, IA 50313. Representative: Stanley C. Olsen, Jr., Suite 411, 7400 Metro Blvd., Edina, MN 55435. *Foodstuffs (except in bulk, in tank vehicles)* from the facilities of Aunt Jane's Foods, Inc. at or near Croswell, MI, to points in IA, KS, MO, NE, OK, and TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Aunt Jane's Foods, Inc., 55 East Sanborn, Croswell, MI 48422. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 138206 (Sub-13TA), filed December 3, 1979. Applicant: TRULINE CORPORATION, 4455 South Cameron Avenue, Las Vegas, NV 89103. Representative: Robert G. Harrison, 4299 James Drive, Carson, City, NV 89701. *Exterior Building Materials and Supplies,* including bagged cement, brick, rock, flue liners, and fireplace equipment between Clark County, NV on the one hand, and points in CA, CO, UT, NM, and NE on the other hand, for 180 days. Supporting shipper: Advance Brick Company, 2400 South Highland Avenue, Las Vegas, NV 89102. Send protests to: DS W. J. Huetig, I.C.C., 705 N. Plaza Street, Carson City, NV 89701.

MC 139336 (Sub-19TA), filed November 28, 1979. Applicant: TRANSTATES, INC., 3216 East Westminster, Santa Ana, CA 92703. Representative: David P. Christianson, Knapp, Grossman & Marsh, 707 Wilshire Boulevard, Suite 1800, Los Angeles, CA 90017. *Contract;* Irregular; *Fiberglass reinforcement, roving, chopped and continuous strand mat, and woven roving,* from Anderson County, SC, Madison County, TN, Randall County, TX, Huntingdon County, PA, and Licking County, OH, to points in California, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper: Thalco, Division of United Merchants & Manufacturers, Inc., Marketing Manager, 6431 Flotilla Street, Los Angeles, CA 90040. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 140016 (Sub-8TA), filed November 27, 1979. Applicant: TRANSPORTATION SERVICES, INC., 1320 East Glendale Avenue, Sparks, NV 89431. Representative: Robert G. Harrison, 4299 James Drive, Carson City, NV 89701. (1) *Such merchandise as is dealt in by wholesale, retail, and chain grocery and feed business houses and agricultural feed business houses* and; (2) *Materials, ingredients, equipment, and supplies used in the development, manufacture, distribution and sale of the products listed in (1)* above between points in WA, OR, ID, NV, UT, CO, AZ, and CA restricted to traffic originating at or terminating at facilities used by the Ralston Purina Company, for 180 days. Supporting shipper: Ralston Purina Company, Sparks, NV 89431. Send protests to: DS W. J. Huetig, I.C.C., 705 North Plaza Street, Carson City, NV 89701.

MC 141436 (Sub-5TA), filed November 27, 1979. Applicant: HARKER'S TRANSPORTATION, INC., P.O. Box 1308, LeMars, IA 51031. Representative: Bradford E. Kistler, P.O. Box 82028, Lincoln, NE 68501. Contract carrier, irregular routes: *Froze meat* from the facilities of Harker's Wholesale Meat, Inc. at LeMars, IA to Altoona, PA and its commercial zone under a continuing contract(s) with Harker's Wholesale Meat, Inc. of LeMars, IA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Harker's Wholesale Meat, Inc., Jerry Moeller, Traffic Manager, P.O. Box 1308, LeMars, IA 51031. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 143236 (Sub-47TA), filed December 6, 1979. Applicant: WHITE TIGER TRANSPORTATION CO., INC.,

40 Hackensack Avenue, Kearny, NJ 07032. Representative: Elizabeth Eleanor Murphy, 40 Hackensack Avenue, Kearny, NJ 07032. Lawn and garden accessories and equipment and materials used in the manufacture of lawn and garden accessories except in bulk between the facilities of Melnor Industries located at or near Moonachie, NJ and points in 48 continental U.S. for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Melnor Industries, 1 Canal Place, Moonachie, NJ 07074. Send protests to: Robert E. Johnston, DS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 144186 (Sub-6TA), filed November 19, 1979. Applicant: SUPERIOR TRANSFER, INC., 2669 Merchant Drive, Baltimore, MD 21230. Representative: Ronald N. Cobert, Suite 501, 1730 M Street, NW, Washington, DC 20036. *General commodities;* except household goods as defined by the Commission, commodities in bulk, Classes A and B explosives and commodities requiring special equipment between the facilities used by Streamline Shippers Association, Inc., at Baltimore, MD on the one hand, and on the other, Atlanta, GA and points in FL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Streamline Shippers Association, Inc., P.O. Box 3606 Terminal Annex, Los Angeles, CA 90051. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 145256 (Sub-5TA), filed September 27, 1979. Applicant: L. K. M. COMPANY, 16637 Sylvester Road SW., Seattle, WA 98166. Representative: Jack R. Davis, 1100 IBM Building, Seattle, WA 98101. *Industrial fork trucks,* from Carson, Los Angeles and Oakland, CA to Billings, MT, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): A. C. Industrial Equip. Inc., 1145 Hiway 10 East, Billings, MT 59103. Send protests to: Shirley M. Holmes, T/A, ICC, 858 Federal Building, Seattle, WA 98174.

MC 146536 (Sub-5TA), filed October 23, 1979. Applicant: WALTER SHORT AGENCY, INC., 5000 Wyoming, Dearborn, MI 48126. Representative: Edwin M. Snyder, 22375 Haggerty Road, P.O. Box 400, Northville, MI 48167. *Air pollution devices,* from the facilities of Tri-Mer Corporation located at or near Owosso, MI to points in TX, CA, OR, WA, KY, NC, SC, AL, GA, CT, MS, FL, TN, IN, IL, WI, MN, AR, CO, OH, PA, NY, NJ, RI, VT, NH, MA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Tri-Mar Corporation, 1400 Monroe Street, P.O. Box 739, Owosso, MI 48269. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 146646 (Sub-63TA), filed October 26, 1979. Applicant: BRISTOW TRUCKING CO., P.O. Box 6355-A, Birmingham, AL 35217. Representative: Henry Bristow, Jr. (same address as above). *Household liquid bleaches and dish detergents* (Restricted against commodities in bulk) From the facilities of National Marketing Associates, Inc. located at or near New Orleans, LA to Montgomery, Birmingham, Geneva and Mobile, AL, for 180 days. Supporting shipper(s): National Marketing Associates, Inc., 1501 S. Louis Ave., New Orleans, LA 70112. Send protests to: Mabel E. Holston, T/A, ICC, Room 1616, 2121 Building, Birmingham, AL 35203.

MC 146886 (Sub-1TA), filed November 29, 1979. Applicant: CONLAN TRUCK LINES, INC., 6160 S. 116th St., Hales Corner, WI 53130. Representative: Richard Westley, 4506 Regent St., Suite 100, Madison, WI 53705. *Laundry care products, home care products, beauty care toiletry products, stainless steel cookware, cutlery and food supplements (except commodities in bulk)* (1) from facilities of Amway Corp. at or near Ada, MI to points in ND and SD and (2) from Aberdeen, SD to points in ND and SD, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Amway Corp., 7575 E. Fulton Rd., Ada, MI 49355. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 147136 (Sub-3TA), filed November 23, 1979. Applicant: TOMORROW TRANSPORT, INC., 1257 Central Ave., Hamilton, OH 45011. Representative: Jerry B. Sellman, 50 West Broad St., Columbus, OH 43215. *Overhead garage doors and accessories,* from Russia, OH to points in CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Clopay Corporation, 101 Miller Road, Russia, OH 45363. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 147536 (Sub-20TA), filed November 7, 1979. Applicant: D. L. SITTON MOTOR LINES, INC., 3305 Range Line, Joplin, MO 64801. Representative: David L. Sitton (same as applicant). (A) *Containers, container ends and closures,* (B) *Commodities manufactured or distributed by manufacturers and distributors of containers when moving in mixed loads with containers, and* (C) *Materials, equipment and supplies used in the manufacture and distribution of containers, container ends and closures (except in bulk in tank vehicles).* Between Ada and Muskogee, OK and points in AZ, CA, KY, NE, NM and OH. (Restricted to shipments originating at or destined to the facilities of Brockway Glass Company, Inc.) Supporting shipper(s): Brockway Glass Company, Inc., P.O. Box 8, Muskogee, OK 74401. Send protests to: Vernon Coble D/S, 600 Fed. Bldg., 911 Walnut St., Kansas City, MO 64106.

MC 147896 (Sub-6TA), filed December 5, 1979. Applicant: WESTERN SONTEX, INC., P.O. Box 667, Seal Beach, CA 90740. Representative: Miles L. Kavaller, Mandel & Kavaller, 315 S. Beverly Drive, Suite 315, Beverly Hills, CA 90212. *Contract;* Irregular; *Abrasive and refractory grains,* from the facilities of General Abrasive, Division of Dresser Industries, Inc. at Niagara Falls, NY to points in AZ, CA, IL, IN, MO, OH, OK and TX, for 180 days. Supporting shipper(s): General Abrasive Division of Dresser Industries, Inc., Purchasing Agent, 2000 College Avenue, Niagara Falls, NY 14305. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 148016 (Sub-4TA), filed November 23, 1979. Applicant: McWHORTER-GRAY ENTERPRISES, INC., 1010 Highway 15 North, Ripley, MS 38663. Representative: Robert H. Taylor, P.O. Box 1728, Jackson, MS 39205. *New manufactured furniture,* from Dumas, MS, to points in the United States except AL, AR, CA, CO, HI, MT, NE, NM, OR, UT, WA and WY under a continuing contract with Henry Reno Manufacturing, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Jerry Reno Manufacturing Co., Rt. 1, Dumas, MS 38625. Send protests to: Floyd A. Johnson, Suite 2006, 100 N. Main St., Memphis, TN 38103.

MC 148436 (Sub-1TA), filed October 22, 1979. Applicant: JOHNSON MOBILE HOME MOVERS, Route 4, White Pines, Box 7, N. Tazewell, VA 24630. Representative: Connie Johnson (same address as applicant). *Mobile homes,* from points in VA to points in WV; from points in WV to points in VA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): O'Quinn Mobile Homes, Inc., P.O. Box 583, Tazewell, VA 24651. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Philadelphia, PA 19106.

MC 148706 (Sub-1TA), filed November 26, 1979. Applicant: AKIN BARNES TRUCKING, Rt. 2, Halls, TN 38040. Representative: Akin Barnes, Rt. 2, Halls, TN 38040. *Pallets, plywood, lumber,* between Halls, TN on the one

hand, and, on the other, Louisville and Murry, KY; Kansas City and Portsville, MO and Blythville, AR, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): There are two supporting shippers. Send protests to: Floyd A. Johnson, 2006, 100 N. Main St., Memphis, TN 38103.

MC 148766 (Sub-1TA), filed November 27, 1979. Applicant: SMITH MOTOR FREIGHT, INC., 9112 S. Willa, Oklahoma City, OK 73159. Representative: Alfred Smith (same address as applicant). *Common Carrier: Regular Route: General Commodities,* (except those of unusual value, Classes A & B explosives, household goods as defined by the Commission, commodities in bulk and commodities requiring special equipment), from Oklahoma City, OK via U.S. Hwy 61 and H. E. Bailey Turnpike to Richards Spur near Lawton; U.S. Hwy 62 from Richards Spur to Chickasha; State Hwy 8 from Anadarko to Cyril; U.S. Hwy 81 from Chickasha to its intersection with U.S. Hwy 277, thence along U.S. Hwy 277 to its intersection with U.S. Hwy 62 north of Richards Spur; State Hwy 19 from Cyril to Apache, Restricted against service to Cement, Cyril and Chickasha, OK. Supporting shipper(s): Home Furniture, Inc., 102 E. Broadway, Anadarko, OK 73005. Hollytex Carpet Mills, 505 N.E. 7th, Anadarko, OK 73005. Sexton & Sexton School Supply, Inc., Box 346, Apache, OK 73006. Public Service Co. of Okla., Box 1, Washita, OK 73094. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

Note.—The above authority shall constitute the right to transport freight in all directions along routes described, to, from and between all points and places on the routes described, except no freight shall be picked up or delivered to Cyril, Cement or Chickasha, OK; said authority shall include the right to serve all points and places on the routes described and the right to serve customers along the routes or adjacent to the communities or routes served or traversed where the same are within a reasonable distance from the described routes or points on said route and may be normally served without going through a city or town that carrier is not authorized to serve.

Note.—Applicant intends to interline freight in Oklahoma City, OK, for 180 days. An underlying ETA seeks 90 days authority.

MC 148776 (Sub-1TA), filed November 15, 1979. Applicant: MICHAEL C. McNULTY d.b.a. M. C. McNULTY TRUCKING, Lincoln & Pulaski Avenues, Riverside, NJ 08075. Representative: H. Neil Garson, 3251 Old Lee Highway, Fairfax, VA 22030. *Automotive parts and automotive accessories.* From Cornwells Heights, PA to points in ND, SC, VA, DC, MD, DE, OH, NJ, NY, MA, CT, Philadelphia, PA and VT, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Autoac, Inc., 1356 Adams Road, Cornwell Heights, PA. Send protests to: District Supervisor, ICC, 744 Broad Street, Rm. 522, Newark, NJ 07102.

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MC 136343 (Sub-199TA), filed October 1, 1979. Applicant: MILTON TRANSPORTATION INC., P.O. Box 355, Milton, PA 17847. Representative: Herbert R. Nurick, P.O. Box 1166, 100 Pine St., Harrisburg, PA 17108. *Paper, paper products, and paper and pulpboard combined with aluminum and copper foil* (except in bulk): (1) From Attleboro, MA to Shreveport, LA; Houston, Dialville, Rusk, Dallas, and Fort Worth, TX; Ocala, FL; Decatur, AL; and pts. in the state of TN. (2) From Memphis, TN to Columbus, OH; Peabody, MA; Brooklyn, NY; Chicago, IL; Atlanta, GA; Tampa, FL; Lancaster, PA; and Attleboro, MA, for 180 days. Supporting shipper(s): Fortifibre Corp., 55 Starkey Ave., Attleboro, MA 02703. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 136602 (Sub-9TA), filed October 4, 1979. Applicant: ARIZONA WESTERN TRANSPORT, INC., P.O. Box "F", Chandler, AZ 85224. Representative: A. Michael Bernstein, 1441 E. Thomas Rd., Phoenix, AZ 85014. *Ground copper slag,* from Phoenix, AZ to the jobsite of the Energy Fuel Nuclear White Mesa Uranium Project located approximately 5 miles South of Blanding, UT, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: G. W. Smith Distributor, 2830 N. 81st Way, Scottsdale, AZ. Send protests to: Ronald R. Mau, District Supervisor, 2020 Federal Bldg., 230 N. 1st Ave., Phoenix, AZ 85025.

MC 136773 (Sub-7TA), filed November 23, 1979. Applicant: S.T.S. MOTOR FREIGHT, INC., 107 Evergreen Road, Stratford, NJ 08084. Representative: Alan Kahn, 1920 Two Penn Center Plaza, Philadelphia, PA 19102. *General commodities* except those of unusual value, and except Classes A and B explosives, commodities in bulk, household goods as defined by the Commission, and those requiring special equipment. Between the carrier's terminals in Pennsauken NJ and Philadelphia, PA on the one hand and on the other, points in DE, Baltimore, MD and points in Baltimore, Carroll, Cecil, Frederick and Hafford Counties, MD, those in New Jersey north of the northern boundaries of Burlington and Ocean Counties, NJ, those in the New York, NY commercial zone as defined by the Commission, and those in Pennsylvania on and east of US Hwy 15 from the MD-PA State line to Harrisburg, PA and on and south of US Hwy 22 from Harrisburg, PA to Easton, PA. Restriction: The service authorized above is restricted to the transportation of shipments delivered to or received from carrier's terminals by for-hire or private carriage, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers: E. F. Houghton & Co., Madison and Van Buren Avenues, PO Box 930, Valley Forge, PA 19482; Cooperative Shippers, Inc., 3200 South 20th Street, Philadelphia, PA 19145; Milton Bradley Company, 443 Shaker Road, East Longmeadow, PA 01028. Send protests to: District Supervisor, ICC, 744 Broad Street, Rm. 522, Newark, NJ 07102.

MC 136803 (Sub-13TA), filed November 14, 1979. Applicant: SIOUX CITY BULK FEED SERVICE, INC., 3200 Highway 75 North, Sioux City, IA 51105. Representative: Edward A. O'Donnell, 1004 29th Street, Sioux City, IA 51104. *Feed and feed ingredients* between points in IL, IA, MN, NE (points on and east of US Highway 81 and on and north of Interstate 80), SD and WI for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers: (1) Commodity Traders, Inc., Edward S. Hahn, President, 800 Omaha Grain Exchange, 19th & Harney, Omaha, NE 68102. (2) Beerman Bros. Dehy, Richard P. Beerman, Partner, 15th & Broadway, Dakota City, NE 68731. (3) Zip Feed Mills, Inc., John McDowell, Direct Purchasing, 304 E. 8th St., Sioux Falls, SD 57101. (4) The Pillsbury Co., Feed Ingredient Division, Andy Lorence, 7900 Xerxes Ave., South, Bloomington, MN 55431. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 138322 (Sub-18TA), filed November 13, 1979. Applicant: BHY TRUCKING, INC., 9231 Whitmore Street, El Monte, CA 91733. Representative: Robert Fuller, 13215 E. Penn St., Suite 310, Whittier, CA 90602. *Unfabricated structural steel,* from the facilities of All States Steel Corporation in Houston, TX to points in AZ, OK, CO, LA and NM, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): All States Steel Corporation, P.O. Box 9818, Houston, TX 77013. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Bldg., 300 North Los Angeles St., Los Angeles, CA 90012.

MC 138322 (Sub-19TA), filed November 26, 1979. Applicant: BHY TRUCKING, INC., 9231 Whitmore Street, El Monte, CA 91733. Representative:

Robert Fuller, 13215 E. Penn St., Suite 310, Whittier, CA 90602. *Iron or steel pipe or tubing,* from the facilities of Torrance Tubing and Conduit Corporation in Torrance, CA to points and places in AR, CO, KS, LA, NM, OK and TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Torrance Tubing and Conduit Corporation, 1739 W. 213th Street, Torrance, CA 90509. Send protests to: Irene Carlos, T/A, I.C.C., 300 North Los Angeles St., Rm. 1321, Los Angeles, CA 90012.

MC 138493 (Sub-5TA), filed November 19, 1979. Applicant: JAKUM TRUCKING, INC., R.R. 2, Miley Road, Sheboygan Falls, WI 53085. Representative: Michael Wyngaard, 150 E. Gilman St., Madison, WI 53703. Contract carrier; irregular routes; *Foodstuff* from Plymouth, WI to points in AZ, CA, CO and TX under a continuing contract(s) with Sargento Cheese Co., Inc., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Sargento Cheese Co., Inc., Plymouth, WI 53073. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 138543 (Sub-3TA), filed December 6, 1979. Applicant: GARY A. SCANNOVINO d.b.a. CHEROKEE FREIGHT LINES, 5463 Cherokee Road, Stockton, CA 95205. Representative: Thomas M. Loughran, 100 Bush Street, 21st Floor, San Francisco, CA 94104. *Contract carrier,* irregular routes: *foodstuffs, except frozen, and such products as are dealt in by wholesale and retail grocers,* from facilities of Amstar Corporation, Spreckels Sugar Division, at Manteca, Mendota, Spreckels and Woodland, CA to points in ID, UT and AZ, under continuing contract with Amstar Corporation, Spreckels Sugar Division, of San Francisco, CA, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Amstar Corporation, 50 California Street, San Francisco, CA 94111. Send protests to: A. J. Rodriguez, 211 Main Street, Suite 500, San Francisco, CA 94105.

MC 138762 (Sub-49TA), filed September 20, 1979. Applicant: MUNICIPAL TANK LINES LIMITED, P.O. Box 3500, Calgary, AB, Canada T2P 2P9. Representative: D. S. Vincent (same address as applicant). *Liquid asphalt,* in bulk, in tank vehicles, from Warren, PA to ports of entry on the U.S.-Canada International Boundary line located in NY, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Graham Bros. Construction Limited, 290 Clarence St., Brampton, ON, Canada L6W 1T4. Send protests to: Paul J. Labane, DS, ICC, 2602 First Avenue North, Billings, MT 59101.

MC 138882 (Sub-329TA), filed November 6, 1979. Applicant: WILEY SANDERS TRUCK LINES, INC., P.O. Drawer 707, Troy, AL 36081. Representative: James W. Segrest (same address as applicant). *Malt beverages* From Laredo, TX; to points in NY, MN, and WI, for 180 days. Supporting shipper(s): All Brand Importers, Inc., P.O. Box 67, Roslyn Heights, NY 11577. Send protests to: Mabel E. Holston, T/A, ICC, room 1616, 2121 Building, Birmingham, AL 35203.

MC 138882 (Sub-330TA), filed November 9, 1979. Applicant: WILEY SANDERS TRUCK LINES, INC., P.O. Box 707, Troy, AL 36081. Representive: James W. Segrest (same address as above). *Lead, lead scrap and lead slag.* From Jacksonville, FL to the facilities of Refined Metals, Inc. located at Memphis, TN, for 180 days. Supporting shipper(s): Refined Metals, Inc., P.O. Box 9006, Memphis, TN 38109. Send Protests to: Mabel E. Holston, T/A, ICC, Room 1616, 2121 Building, Birmingham, AL 35203.

MC 138882 (Sub-331TA), filed October 5, 1979. Applicant: WILEY SANDERS TRUCK LINES, INC., P.O. Box 707, Troy, AL 36081. Representative: George A. Olsen, P.O. Box 357, Gladston, NJ 07934. *Paper, paper products, and materials, equipment, and supplies used in the manufacture and distribution of paper and paper products (except commodities in bulk),* between the facilities of Scott Paper Company, on the one hand, and on the other, points in the U.S. (except AK and HI), for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Scott Paper Company, 1 Scott Plaza, Philadelphia, PA 19113. Send protests to: Mabel E. Holston, T/A, ICC, Room 1616, 2121 Building, Birmingham, AL 35203.

MC 139482 (Sub-164TA), filed November 20, 1979. Applicant: NEW ULM FREIGHT LINES, INC., P.O. Box 877, New Ulm, MN 56073. Representative: James E. Ballenthin, 630 Osborn Building, St. Paul, MN 55102. *General commodities (except commodities in bulk),* between Chicago, Niles, Bensenville, and Elk Grove Village, IL, on the one hand, and, on the other, points in the U.S. (except AK and HI), for 180 days. Restricted to the transportation of traffic originating at or destined to the facilities of W. W. Grainger, Inc. An underlying ETA seeks 90 days authority. Supporting shipper(s): W. W. Grainger, Inc., Transportation Operations Mgr., 5959 W. Howard Street, Chicago, IL 60648. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 139482 (Sub-165TA), filed November 29, 1979. Applicant: NEW ULM FREIGHT LINES, INC., P.O. Box 877, New Ulm, MN 56073. Representative: Samuel Rubenstein, P.O. box 5, Minneapolis, MN 55440. *Frozen Boxed Meats,* from Worthington and St. Paul, MN, to points in TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Agri-Energy Enterprises, Pres., 8918 Tesoro Suite #320, San Antonio, TX 78217. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 139962 (Sub-4TA), filed November 9, 1979. Applicant: NORTH EAST EXPRESS, INC., P.O. Box 127, Mountaintop, PA 18707. Representative: Joseph F. Hoary, 121 S. Main St., Taylor, PA 18517. Contract carrier-irregular routes: *General commodities* (except household goods, commodities in bulk, commodities which because of their size or weight require special equipment and Classes A and B explosives, between points in the United States, under continuing contract(s) with Gould, Inc., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Gould, Inc., 2568 Industry Lane, Norristown, PA 19403. Send protests to: ICC, 101 N. 7 St., Philadelphia, PA 19106.

MC 139822 (Sub-7TA), filed September 20, 1979. Applicant: FOOD CARRIER, INC., P.O. Box 2287, Savannah, GA 31402. Representative: Edward G. Villalon, 1032 Pennsylvania Building, Pennsylvania Avenue & 13th St., NW., Washington, DC 20004. (1) malt beverages and related advertising materials, from the facilities of Miller Brewing Company at Albany, GA, to point in AL, AR, FL, GA, KY, LA, MS, SC, and TN, and (2) equipment, materials and supplies used in the manufacture of malt beverages, from points in AL, FL, IN, LA, MO, OK, SC, TX, VA, and WV, to the facilities of Miller Brewing Company and its suppliers in GA, for 180 days. Supporting shipper(s): Miller Brewing Company, 3939 W. Highland Blvd., Milwaukee, WI 53208. Send protests to: Jean King, TA, ICC, Box 35008, 400 West Bay St., Jacksonville, FL 32202.

MC 14012 (Sub-78TA), filed October 29, 1979. Applicant: ROBERT F. KAZIMOUR, P.O. Box 2207, Cedar Rapids, IA 52406. Representative: J. L. Kazimour (same address as applicant). (1) *stove pipe, chimneys, ducts, flashings, and metal products and* (2) *equipment, materials, and supplies used in the manufacture, sale, and distribution of* (1) *above (except*

*commodities in bulk, in tank vehicles)* between Redwood City, CA, and Cincinnati, OH, on the one hand, and, on the other, points in the United States (except AK and HI), restricted to traffic originating at or destined to the facilities used by Dura-Vent Corp., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Dura-Vent Corporation, P.O. Box 2249, Redwood City, CA 94064. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 141012 (Sub-4TA), filed November 19, 1979. Applicant: BINGHAM TRANSPORTATION, INC., Box 728, Baxter Springs, KS 66713. Representative: Tom B. Kretsinger, 20 East Franklin, Liberty, MO 64068. *Contract carrier: Coal* from Craig County, OK to Riverton and Fredonia, KS & Asbury, MO; irregular routes, for 180 days. Supporting shipper: Leon's Coal Co., Route 1, Blue Jacket, OK 74333. Send protests to: M. E. Taylor, DS, ICC, 101 Litwin Bldg., Wichita, KS 67202.

MC 141033 (Sub-60TA), filed October 5, 1979. Applicant: CONTINENTAL CONTRACT CARRIER CORP., 15045 E. Salt Lake Ave., P.O. Box 1257, City of Industry, CA 91749. Representative: James I. Mendenhall, (same address as applicant). *General commodities (except those of unusual value, Classes A and B explosives, commodities in bulk, household goods as defined by the Commission, and those requiring special equipment), which are at the time moving on bills of lading of freight forwarders under part IV of the Interstate Commerce Act,* from points in Alabama and Tennessee (except Memphis and Nashville, TN), to points in California, for 180 days. An underlying ETA seeks up to 90 days authority. Supporting shipper(s): Western Carloading Company, Ass't Vice-President-Traffic, 960 East 3rd Street, Los Angeles, CA 90013. Send protests to: Irene Carlos, TA, ICC, 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 141133 (Sub-3TA), filed November 2, 1979. Applicant: STANLEY KNAPPENBERGER, 217 New St., Walnutport, PA 18088. Representative: Francis W. Doyle, 323 Maple Ave., Southampton, PA 18966. *Non-ferrous metals and residue, in bulk, in dump and open-top trailers,* from the facilities of Nimco Shredding Co. at Newark, NJ to Belleville, MI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Nimco Shredding Co., 252 Doremus Ave., Newark, NJ 07105. Send protests to: I.C.C., 101 N. 7 St., Philadelphia, PA 19106.

MC 141382 (Sub-5TA), filed November 19, 1979. Applicant: DON'S MOVING & DELIVERY SYSTEM, INC., 527 S. Fremont, Janesville, WI 53545. Representative: James Spiegel, 6425 Odana Rd., Madison, WI 53719. *Insulation & insulation products, and materials, equipment and supplies used in the manufacture and distribution of insulation and insulation products* between Janesville, WI on the one hand, and, on the other hand, points in IL, IA, IN, MI, MN & MO, restricted to transportation to or from facilities of Design Insulation Systems, Inc., Janesville, WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Design Insulation Systems, Inc., Box 1146, Janesville, WI 53545. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Room 619, Milwaukee, WI 53202.

MC 141402 (Sub-46TA), filed October 23, 1979. Applicant: LINCOLN FREIGHT LINES, INC., P.O. Box 427, Lapel, IN 46051. Representative: Norman R. Garvin, 1301 Merchants Plaza, Indianapolis, IN 46204. Contract Carrier: Irregular Routes: *Plastic articles* from Dawson Springs, KY to points in ME, VT, NH, MD, DC, LA, AR, MO, IA, MN, TX, OK, KS, NE, SD, ND, NM, CO, WY, MT, AZ, UT, ID, CA, NV, OR, and WA for 180 days under a contract or continuing contracts with Midland-Ross Corporation. An underlying ETA seeks 90 days authority. Supporting shipper: Midland-Ross Corporation, 1450 South 10th Street, P.O. Box 8101, Louisville, KY 40208. Send protests to: Beverly J. Williams, ICC, 429 Federal Bldg., 46 East Ohio Street, Indianapolis, IN 46204.

MC 141443 (Sub-49TA), filed October 29, 1979. Applicant: JOHN LONG TRUCKING, INC., 1030 East Denton, Sapulpa, OK 74066. Representative: Wilburn L. Williamson, Suite 615-East, The Oil Center, 2601 Northwest Expressway, Oklahoma City, OK 73112. (1) *Alcoholic beverages,* (except in bulk), from Tulsa, OK, to CA; and (2) *Wine,* (Except in bulk), from CA, to Tulsa, OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Jarboe Sales Company, 6924 E. Reading Place, Tulsa, OK 74115. Send protests to: Connie Stanley, ICC, Room 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 141743 (Sub-3TA), filed November 19, 1979. Applicant: MARK IV CHARTER LINES, INC., 24500 South Vermont Avenue, P.O. Box 697, Harbor City, CA 90710. Representative: Eldon M. Johnson, 650 California Street, Suite 2808, San Francisco, CA 94108. *Passengers and their baggage, in the same vehicle with passengers, in round-trip charter operations,* from points in Orange County, California north and west of a line formed as follows: Commencing at the intersection of California Highway 91 and the Orange County/Riverside County boundary, moving westerly along California Highway 91 to its intersection with California Highway 55; southerly along California Highway 55 to its intersection with Chapman Avenue; westerly along Chapman Avenue to its intersection with Brookhurst; southerly along Brookhurst to its intersection with California Highway 1; and from points in Los Angeles County, California south and east of the line described as follows: Commencing at the point where the Ventura County-Los Angeles County boundaries meet the Pacific Ocean, and extending along said county boundary line to the point where said county boundary meets the city boundary line of the City of Los Angeles in Chatsworth; continuing north and east along said city boundary line to the point where said city boundary line meets the southern boundary of the Angeles National Forest; and continuing along the southern boundary of the Angeles National Forest to the San Bernardino County line, to points in the States of Colorado, Idaho, Utah, and Wyoming, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Sports America Tours, Inc., President, 15 Pamaron Way, Suite A, Novata, CA 94947. Send protests to: Irene Carlos, TA, ICC, Room 1321, Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 141823 (Sub-10TA), filed December 3, 1979. Applicant: GLASS CONTAINER TRANSPORT, INC., Rt. 1, Box 271, Ridgeway, SC 29103. Representative: Archie B. Culbreth, Suite 202, 2200 Century Parkway, Atlanta, GA 30345. *Contract carrier,* irregular routes: *(a) Containers and container closures, (b) such commodities as are dealt in by manufacturers and distributors of containers (except containers and container closures) when moving in mixed loads with containers, and (c) materials, equipment and supplies used in the manufacture and distribution of the commodities in (1) above,* between those points in the United States in and east of MN, IA, MO, OK and TX, restricted against the transportation of commodities in bulk, in tank vehicles; under continuing contracts with Kerr Glass Manufacturing Corporation of Sand Springs, OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Kerr Glass Manufacturing Corp., P.O. Box 97, Sand

Springs, OK 74063. Send protests to: E. E. Strotheid, D/S, ICC, 866 Strom Thurmond Fed. Bldg., 1835 Assembly St., Columbia, SC 29201.

MC 142062 (Sub-34TA), filed November 19, 1979. Applicant: VICTORY FREIGHTWAY SYSTEM, INC., P.O. Box P, Sellersburg, IN 47172. Representative: William P. Jackson, Jr., 3426 N. Washington Blvd., P.O. Box 1240, Arlington, VA 22210. *Contract carrier,* irregular routes: *Such commodities as are dealt in, used by or manufactured by a furniture manufacturer (except in bulk),* (1) from facilities of or utilized by Bal Harbour Manufacturing, Inc, at or near Santa Ana, CA and Denver, CO, to points in the U.S. in and east of WI, IL, KY, TN, and MS, and (2) from facilities of or utilized by Bal Harbour Manufacturing, Inc., at or near Santa Ana, CA. to facilities of or utilized by Bal Harbour Manufacturing, Inc. at or near Denver, CO for 180 days. Restricted to transportation of shipments under a continuing contract or contracts with Bal Harbour Manufacturing, Inc. An underlying ETA seeks 90 days authority. Supporting shipper: Bal Harbour Manufacturing, Inc., 1900 S. Susan, Santa Ana, CA 92704. Send protests to: Beverly J. Williams, Transportation Assistant, ICC, 429 Federal Bldg. 46 E. Ohio Street, Indianapolis, IN 46204.

MC 142113 (Sub-3TA), filed October 31, 1979. Applicant: CHESTER A. RICHMOND, SR., dba RICHMOND CARTAGE, P.O. Box 377, Craigsville, WV 26205. Representiative: John M. Friedman, 2930 Putnam Ave., Hurricane, WV 25526. *General commodities, except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commiodities in bulk, and those which because of size or weight require the use of special equipment,* (1) from Sutton over Interstate Highway 79 to junction U.S. Highway 50, then over U.S. Highway 50 to junction U.S. Highway 21, then over U.S. Highway 21 to Marietta, and return over the same route; and (2) from Lewisburg over Interstate Highway 64 to junction U.S. Highway 220, then over U.S. Highway 220 to Roanoke, and return over the same route, for 180 days. Supporting shipper(s): There are 8 supporting shippers. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7 St., Philadelphia, PA 19106.

MC 142393 (Sub-1TA), filed November 20, 1979. Applicant: ROBBIE D. WOOD, INC., P.O. Box 125, Dolomite, AL 35061. Representative: Gerald D. Colvin, Jr., 603 Frank Nelson Building, Birmingham, AL 35203. *Coal* From points in AL to points in the states of MO, AR, TX and LA, for 180 days. Supporting shipper(s): Holland Coal Co., 708 26th Ct. NW., Birmingham, AL 35203. Send protests to: Mabel E. Holston, T/A, ICC, Room 1616, 2121 Building, Birmingham, AL 35203.

MC 142603 (Sub-21TA), filed December 7, 1979. Applicant: CONTRACT CARRIERS OF AMERICA, INC., P.O. Box 1968, Springfield, MA 01101. Representative: S. Michael Richards, P.O. Box 225, 44 North Avenue, Webster, NY 14580. Contract carrier: irregular routes: *(1) Automotive parts, accessories, components and equipment (2) publications, advertising material and packaging and shipping supplies utilized in connection with the commodities named in (1) above,* between Marysville, Warren, and Center Line, MI; Boston, MA; Newark, DE; and Tappen, NY, restricted to traffic originating at or destined to the facilities of the Chrysler Corporation, Service & Parts Division, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Service & Parts Division, Chrysler Corporation, 26311 Lawrence Avenue, Center Line, MI 48015. Send protests to: David M. Miller, DS, ICC, 436 Dwight Street, Springfield, MA 01103.

MC 142672 (Sub-97TA), filed November 14, 1979. Applicant: DAVID BENEUX PRODUCE & TRUCKING, INC., P.O. Drawer F, Mulberry, AR 72947. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Petroleum, petroleum products and sound deadening compounds* (except in bulk) from the facilities of Pennzoil Corporation, at or near Maryland Heights, MO to points in AR, CO, LA, MS, OK, and TX, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Pennzoil Corporation, Drake Bldg., Oil City, PA 16301. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 142672 (Sub-98TA), filed November 14, 1979. Applicant: DAVID BENEUX PRODUCE & TRUCKING, INC., P.O. Drawer F, Mulberry, AR 72947. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Meats, meat products and meat byproducts, and articles distributed by meat packinghouses,* as described in Sections A and C of Appendix 1 to the report in Descriptions in Motor Carrier Certificates 61 M.C.C. 209 and 706 (except hides and commodities in bulk) from the facilities of Vernon Calhoun Packing Company, at or near Palestine, TX to points in AL, CT, DE, FL, GA, LA, IN, KS, KY, LA, MA, MD, ME, MI, MS, NC, NE, NH, NJ, PA, RI, SC, TN, VA, VT, WI and WV, restricted to the transportation of traffic originating at the named origin, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Vernon Calhoun Packing Company, P.O. Box 709, Palestine, TX 75801. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 142672 (Sub-99TA), filed November 9, 1979. Applicant: DAVID BENEUX PRODUCE & TRUCKING, INC., P.O. Drawer F, Mulberry, AR 72947. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Clothing, NOI,* from the facilities of Sidney Bernstein & Son, at or near Lancaster, PA, to points in AZ, CA, MO, NM, NV, OK, OR, TX and WA, for 180 days. Supporting shipper(s): Sidney Bernstein & Son, 701 E. Ross St., Lancaster, PA 17602. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 142703 (Sub-20TA), filed October 18, 1979. Applicant: INTERMODAL TRANSPORTATION SERVICES, INC., 750 West 3rd St., P.O. Box 14072, Cincinnati, OH 45214. Representative: Michael Spurlock, 275 E. State St., Columbus, OH 43215. *General commodities,* except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment, between points in Cincinnati, OH (and its commercial zone); Columbus, OH (and its commercial zone); and Danville, KY (and its commercial zone); on the one hand, and, on the other, points in WV, for 180 days. An underlying ETA seeks 90 days authority. Restricted to transportation of shipments having a prior or subsequent rail or water movement. Supporting shipper(s): There are nine (9) supporting shippers supporting this application. Their statements may be examined at the office listed below or Headquarters. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Room 620, Philadelphia, PA 19106.

MC 142703 (Sub-21TA), filed October 16, 1979. Applicant: INTERMODAL TRANSPORTATION SERVICES, INC., 750 W. 3rd St., P.O. Box 14072, Cincinnati, OH 45214. Representative: Michael Spurlock, 275 E. State St., Columbus, OH 43215. *General commodities* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), between points in Danville, KY (and its commercial zone), on the one hand, and, on the other, points in KY, for 180 days. Restricted to the transportation of

shipments having a prior or subsequent rail or water movement. An underlying ETA seeks 90 days authority. Supporting shipper(s): There are six (6) shippers supporting this application. Their statements can be examined in the office listed below or Headquarters. Send protests to: I.C.C. Fed. Res. Bank Bldg., 101 N. 7th St., Room 620, Philadelphia, PA 19106.

MC 143002 (Sub-15TA), filed November 21, 1979. Applicant: C. D. B., Incorporated, 155 Spaulding, SE, Grand Rapids, MI 49506. Representative: Karl L. Gotting, 1200 Bank of Lansing Building, Lansing, MI 48933. *Contract Carrier:* Irregular routes; Materials and supplies used in the manufacture and distribution of household and personal care products, from Pine Brook, NJ to Ada, MI under continuing contract with Amway Corporation. For 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Amway Corporation, 7575 East Fulton Road, Ada, MI 49355. Send protests to: C. R. Flemming, D/S, I.C.C., 300 East Michigan Avenue, Lansing, MI 48933.

MC 143002 (Sub-16TA), filed November 27, 1979. Applicant: C.D.B., INCORPORATED, 155 Spaulding, SE, Grand Rapids, MI 49506. Representative: Karl L. Gotting, 1200 Bank of Lansing Building, Lansing, MI 48933. *Contract Carrier:* irregular routes; *Drugs and toilet articles, materials and supplies* used in the manufacture, sale and distribution thereof; between Allegan, MI and its commercial zone, on the one hand and on the other, Atlanta and Newman, GA; Fort Lauderdale, Orlando and Largo, FL; North Augusta, SC; Henderson, NC; North Little Rock, AR; Knoxville, TN; Sparks, NV; Salt Lake City, UT; Oklahoma City, OK; Dallas and Houston, TX; Phoenix, AZ and their respective Commercial zones under continuing contract or contracts with L. Perrigo Company. For 180 days. An underlying ETA seeks 90 days authority. Supporting Shipper(s): L. Perrigo Company, 117 Water Street, Allegan, MI 49010. Send Protests To: C. R. Flemming, D/S, I.C.C., 300 East Michigan Avenue, Lansing, MI 48933.

MC 143133 (Sub-3TA), filed October 31, 1979. Applicant: SHEPPARD ENTERPRISES, INC., 101 Philadelphia St., Hanover, PA 17331. Representative: Daniel M. Frey; 31 York St., Hanover, PA 17331. *Contract Carrier:* irregular routes; *Carbonizing compound and bronze bearings* from Detroit, MI to Hanover, PA; *castings* from Hanover, PA to Pittsburgh, PA, Wilmerding, PA, Detroit, MI, Chicago, IL, and Cleveland, OH; *sodium bicarbonate* from Wynndotte, MI to Lancaster, PA; *phosphates* from Joliet, IL to Lancaster, PA; *drummed chemicals,* from Louisville, KY to Lancaster, PA, for 180 days. Supporting Shipper(s): R. H. Sheppard Co., Inc., 101 Philadelphia St., Hanover, PA 17331. Conestoga Fuels, Inc., 403 Juliette Ave., Lancaster, PA 17604. Send Protests To: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 143482 (Sub-3TA), filed October 26, 1979. Applicant: THOMAS D. SHOUP, R. D. #1, Strattanville, PA 16258. Representative: John A. Pillar, 1500 Bank Tower, 307 Fourth Ave., Pittsburgh, PA 15222. *Coal,* in bulk, in dump vehicles, from points in Clarion County, PA to Watkins Glen, NY, for 180 days. An underlying ETA seeks 90 days authority. Supporting Shipper(s): Zacherl Coal Co., Lucinda, PA 16235. Send Protests To: I.C.C., Fed. Res. Bank Bldg., 101 N. 7 St., Philadelphia, PA 19106.

MC 143553 (Sub-3TA), filed November 19, 1979. Applicant: WY TRUGKING, INC., P.O. Box 236, Versailles, CT 06383. Representative: Ronald I. Shapss, 450 Seventh Avenue, New York, NY 10001. *Contract Carrier:* irregular routes; *kraft linerboard, materials, equipment and supplies used in the manufacture of kraft linerboard,* between Riceboro, Georgia, on the one hand, and, on the other, Edison, New Jersey; Reading, Pennsylvania; New Haven, Connecticut; and Lowell, Massachusetts, for 180 days. An underlying ETA seeks 90 days authority. Supporting Shipper(s): Interstate Container Corporation, 1175 State Street, New Haven, CT 06511. Send Protests To: J. D. Perry, Jr., District Supervisor, Interstate Commerce Commission, 135 High Street, Hartford, CT 06103.

MC 143693 (Sub-89TA), filed November 29, 1979. Applicant: DFC TRUCKING COMPANY, 17872 Cartwright Road, Irvine, CA 92705. Representative: Floyd L. Farano, 2555 Chapman Ave., Suite 705, Fullerton, CA 92631. *Contract:* Irregular: *Frozen meat, frozen and fresh fish, poultry, pork; frozen and chilled foodstuffs; canned and packaged foodstuffs; restaurant supplies restricted to table items only, i.e., napkins, china, flatware, glassware, silverware and cloth products; paper products; restaurant maintenance and janitorial supplies; restaurant and kitchen supplies and utensils used in kitchens for the preparation and service of food; new and used furniture, fixtures and equipment used in the establishment and operation of a restaurant,* for the account of Delly Food Co. and Denny's Restaurants from Arlington, TX and Orlando, FL to Denny's Restaurants, new and existing, at various points and places in the states of AL, AR, CO, CT, DE, FL, GA, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, NE, NH, NJ, NM, NY, NC, ND, OH, OK, PA, RI, SC, TN, TX, UT, VT, VA, WV, WI, WY and return shipments of the same for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Delly Food Company, 17872 Cartwright Road, Irvine, CA 92714. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Bldg., 300 North Los Angeles St., Los Angeles, CA 90012.

MC 143812 (Sub-19TA), filed November 19, 1979. Applicant: MARVIN E. VAN DIEST, d.b.a., M. VAN DIEST COMPANY, 8087 Victoria Avenue, Riverside, CA 92504. Representative: William J. Monheim, P.O. Box 1756, Whittier, CA 90609. *Grape juice concentrate and grape wine,* in bulk, from points in Kern County, CA to the ports of entry on the International Boundary Line between the United States and Canada located in Maine, New Hampshire, New York, and Vermont, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): LaMont Winery, Inc., Distribution Manager, P.O. Box 428, Di Georgio, CA 93217. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 144323 (Sub-4TA), filed October 29, 1979. Applicant: RICHARD P. CHARAPATA, d.b.a., CHARAPATA TRUCKING, N 30 W 26466 Peterson Drive, Pewaukee, WI 53072. Representative: Daniel Dineen, 710 N. Plankinton Ave., Milwaukee, WI 53203.Contract carrier; irregular routes; *Meats, meat products and meat byproducts, and articles distributed by meat-packing houses as described in Sections A & C of Appendix I to the report in Descriptions in Motor Carrier Certificates, 61 MCC 209 and 766 (except hides and commodities in bulk)* from facilities of Peck Meat Packing Corp., Milwaukee, WI to points in PA, NY, NJ, CT, MA, RI, VT, NH, ME, MD, DE, VA, TN, NC, SC, GA & FL under a continuing contract with Peck Meat Packing Corp. of Milwaukee, WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Peck Meat Packing Corp., 231 S. Muskego Ave., Milwaukee, WI 53202. Send protests to: Gail Dougherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 144442 (Sub-8TA), filed November 20, 1979. Applicant: ESSEX EXPRESS, INC., 1200 Hammondville Rd., Pompano Beach, FL 33060. Representative: Don A. Allen, 2550 M St., N.W., Washington, D.C. 20037. Contract Carrier—Irregular

Route: *Frozen berries for use in dairy products* from the facilities of Theresa Friedman & Sons, Inc., Philadelphia, PA to Jacksonville and Miami, FL for 180 days. Supporting shipper(s): Theresa Friedman & Sons, Inc., Tomlinson Rd. & Jamison Ave., Philadelphia, PA 19116. Send protests to: Donna M. Jones, T/A, ICC—BOp, Monterey Bldg., Suite 101, 8410 N.W. 53rd Ter., Miami, FL 33166.

MC 144503 (Sub-25TA), filed December 10, 1979. Applicant: ADAMS REFRIGERATED EXPRESS, INC., P.O. Box F, Forest Park, GA 30050. Representative: Virgil H. Smith, Suite 12, 1587 Phoenix Blvd., Atlanta, GA 30349. *Meat, meat products, and meat by-products (except hides and commodities in bulk)* from the facilities of the Rath Packing Co. at Columbus Junction, IA, Waterloo, IA and Indianapolis, IN to AL, GA, LA, MS, NC, SC, and points in TN on and east of Hwy 65 for 180 days. Supporting shipper(s): The Rath Packing Company, P.O. Box 330, Waterloo, IA 50704. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 144522 (Sub-7TA), filed August 6, 1979. Applicant: PETERSEN & FOGO, INC., P.O. Box 484, Superior, NE 68978. Representative: Lavern R. Holdeman, 521 S. 14th St., Suite 500, Lincoln, NE 68501. *Graindrying, storage, handling, conditioning and aeration equipment, attachments, accessories and parts,* from the facilities of Superior Equipment Manufacturing Company at or near Mattoon, IL to points in CA, ID, LA, NV, OR, UT and WY for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Superior Equipment Manufacturing Company, a division of Tiffany Industries, 19th & Olive Streets, Mattoon, IL 61938. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 144522 (Sub-8TA), filed September 20, 1979. Applicant: PETERSEN & FOGO, INC., Box 484, Superior, NE 68978. Representative: Lavern R. Holdeman, 521 South 14th Street, Suite 500; P.O. Box 81849, LIncoln, NE 68501. (1) *Livestock handling equipment* from the facilities of Lambert Manufacturing Inc. in Smith County, KS to points in that part of the U.S. in and west of ND, SD, IA, MO, OK and LA (except points in KS; (2) *Iron and Steel articles* from Chicago, IL and St. Louis, MO to the facilities of Lambert Manufacturing Inc. in Smith County, KS for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Lambert Manufacturing, Inc., Jerry L. Lambert, Vice-President, Route 2, Box 109, Smith Center, KS 66967. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th Street, Omaha, NE 68102.

MC 144622 (Sub-121TA), filed November 16, 1979. Applicant: GLENN BROS. TRUCKING, INC., P.O. Box 9343, Little Rock, AR 72219. Representative: Robert D. Gisvold, 1000 First National Bank Bldg., Minneapolis, MN 55402. *Flooring, hardwood, and mastic floor cement* from the facilities of Sykes Flooring, Division of Masonite, Inc., located at Warren, AR, to all points in the United States (except HI and AK), for 180 days. Supporting shipper(s): Masonite Division of Sykes Flooring Products, P.O. Box 999, Warren, AR 71671. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 144622 (Sub-122TA), filed October 30, 1979. Applicant: GLENN BROS. TRUCKING, INC., P.O. Box 9343, Little Rock, AR 72219. Representative: Phillip G. Glenn, (same address as applicant). (1) *Gift wrapped and packaged foods and food products (except frozen), and commodities dealt in by retail gift shops, and* (2) *plants and bulbs* when moving at the same time and in the same vehicle with the commodities in (1) above, from the facilities of Harry and David at or near Medford, OR, to points in the United States (except AK and HI) for 180 days. Supporting shipper(s): Harry and David, P.O. Box 712, Medford, OR 97501. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 144622 (Sub-123TA), filed October 26, 1979. Applicant: GLENN BROS. TRUCKING, INC., P.O. Box 9343, Little Rock, AR 72219. Representative: Robert D. Gisvold, 1000 First National Bldg., Minneapolis, MN 55402. *Foodstuffs,* (except commodities in bulk), from the facilities of Green Giant at or near Belvedere, IL to points in MO, MS and TN, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Green Giant Company, 1100 N. 4 St., Le Sueur, MN 56058. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 144682 (Sub-34TA), filed September 20, 1979. Applicant: R. R. STANLEY, 1738 Empire Central, Dallas, TX 75235. Representative: D. Paul Stafford, P.O. Box 45538, Suite 1125 Exchange Park, Dallas, TX 75245. *Foodstuffs* (except commodities in bulk) from the facilities of Anderson Clayton Foods at Sherman, TX to points in AR, CA, CO, FL, GA, IL, KS, LA, MN, MS, MO, NE, NJ, NM, NY, NC, OH, OK, OR, PA, TN, and UT, for 180 days. Supporting shipper(s): Anderson Clayton Foods, Box 226165, Dallas, TX 75266. Send protests to: Opal M. Jones, TCS, Room 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 144682 (Sub-35TA), filed October 10, 1979. Applicant: R. R. STANLEY, 1738 Empire Central, Dallas, TX 75235. Representative: D. Paul Stafford, P.O. Box 45538, Dallas, TX 75245. *Prepared foodstuff (except commodities in bulk) in vehicles equipped with mechanical refrigeration* from the facilities of The Pillsbury Company at Denison, TX to points in the States of AL, AR, OK, MS, MO, NE, LA, and KS for 180 days. An underlying ETA for 90 days filed. Supporting shipper(s): The Pillsbury Company, 608 Second Avenue South, Minneapolis, MN 55402. Send protests to: Opal M. Jones, TCS, ICC, Room 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 145102 (Sub-42TA), filed November 27, 1979. Applicant: FREYMILLER TRUCKING, INC., P.O. Box 188, Shullsburg, WI 53586. Representative: Wayne Wilson, 150 E. Gilman St., Madison, WI 53703. *Foodstuffs and specialty gift items* from Monroe, WI to AZ, CA, CO, MT, NV, NM, OR, UT & WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Swiss Colony Stores, Inc., Swiss Colony, Inc., 112 7th Ave., Monroe, WI 53566. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 145133 (Sub-1TA), filed November 20, 1979. Applicant: KALLAM TRANSFER CO., INC., 801 Pressley Rd., Suite 103, Charlotte, NC 28210. Representative: George H. Kallam, III, (same address as applicant). *Household goods as defined by the Commission* between points in Mecklenburg County, NC, on the one hand, and, on the other, points in the States of NY, OH, IN, IL, GA, FL, AL, TN, DE, MD, PA, VA, NJ and SC, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Collins & Aikman Corp., P.O. Box 580, Albemarle, NC 28061. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd–Rm CC516, Charlotte, NC 28205.

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MC 145152 (Sub-131TA), filed November 14, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. (1) *Frozen vegetables* from the facilities of Marshburn Farms, Inc., at or near Norwalk, CA to points in FL, IA, IL, IN, MA, MD, MI, MN, MO, NE, NJ, NY, OH, OR, PA, TX, WA and WI; and (2) *frozen foods* from the facilities of or used by

Valley Packing Service, at or near Castroville and Watsonville, CA; Salem, OR; and Bellingham, Ellensburg, Kent, Pasco and Stanwood, WA, to points in AL, FL, GA, IL, IN, KY, LA, MA, MI, MO, MS, NC, NJ, NY, OH, PA, SC, TN and VA; and (3) *frozen foods* from the facilities of Oxnard Frozen Foods Cooperative, at or near Oxnard, CA, to points in the U.S. (except AK and HI); and (4) *frozen juices* from the facilities of Ventura Coastal Corporation, at or near Ventura, CA, to points in CO, OR and WA, for 180 days. Supporting shipper(s): Marshburn Farms, Inc., P.O. Box 529, Norwalk, CA 90650; Oxnard Frozen Foods Cooperative, P.O. Box 1427, Oxnard, CA 93032; Valley Packing Service, P.O. Box 108, Watsonville, CA 95076; Ventura Coastal Corporation, 2325 Vista Del Mar Drive, Ventura, CA 93001. Send protests to: William H. Land, Jr., DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-132TA), filed November 14, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Candy* from the facilities of Ce De Candy Company, at or near Union, NJ to St. Louis, MO, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Ce De Candy Company, Inc., 1091 Lousons Rd., Union, NJ 07083. Send protests to: William H. Land, Jr., DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-140TA), filed October 25, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 159, Rogers, AR 72756. *Inedible fatty acid of animal oil, fatty acid of vegetable oil, stearic acid, azelaic acid, pelargonic acid, chemicals, organic ammonia compounds, esters, glycerines, lubricating oils, petroleum oil, flakes (plastic, pellets or solid), liquid plastic, candle tar, wax, resin plasticizer and cleaning compounds* (except in bulk), from Los Angeles, CA and Cincinnati, OH to points in the U.S. (except AK and HI), restricted to the transportation of traffic originating at the facilities of Emery Industries, Inc., for 180 days. Supporting shipper(s): Emery Industries, Inc., 1300 Carew Tower, Cincinnati, OH 45202. Send protests to: William H. Land, Jr., DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-141TA), filed October 24, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 159, Rogers, AR 72756. *Candy* from the facilities of Ce De Candy Company, Inc. at or near Union, NJ to Vernon, CA; Farrington, TX; and Salt Lake City, UT, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Ce De Candy Company, Inc., 1091 Lousons Rd., Union, NJ 07083. Send protests to: William H. Land, Jr., DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-142TA), filed October 22, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Kent L. Tharel, P.O. Box 334, Fayetteville, AR 72701. *Petroleum and petroleum products,* except in bulk, from St. Louis, MO; Memphis, TN; Dallas, TX to Fayetteville, AR, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Mitchell Oil Company, Inc., 500 W. 6, Fayetteville, AR 72701. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-143TA), filed October 22, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Kent L. Tharel, P.O. Box 334, Fayetteville, AR 72701. *Such commodities as are dealt in or used by wholesale and retail discount and variety stores,* from points in NJ and NY to facilities of Hart Stores, Inc. at or near Columbus, OH, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Hart Stores, Inc., 770 West Goodale Blvd., Columbus, OH 43212. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-144TA), filed October 22, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Kent L. Tharel, P.O. Box 334, Fayetteville, AR 72701. *Steel shelving and metal shelving, assembled and unassembled; members, component parts, and accessories,* from points in OH to facilities of Metal Products Co., Inc., dba Austin Material Handling Co. at or near Austin, TX, for 180 days. Supporting shipper(s): Metal Products Co., Inc., dba Austin Material Handling Co., 2307 Kramer Lane, Austin, TX 78758. Send protests to: William H. Land, Jr., DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-145TA), filed October 31, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Kent L. Tharel, 103 North College, P.O. Box 334, Fayetteville, AR 72701. *Meat products, meat by-products and articles distributed by meat packing houses, except hides and commodities in bulk* from facilities of or used by Del Pero-Mondon Meat Co. of Arkansas, at or near Booneville, AR to points in U.S.; from points in U.S. to facilities of or used by Del Pero-Mondon Meat Co. at or near Booneville, AR for 180 days. Supporting shipper(s): Del Pero-Mondon Meat Co. of Arkansas, P.O. box 8183, Munger Station, Wichita, KS 67219. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-146TA), filed November 19, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Frozen fruits and vegetables and canned fruits and vegetables,* between points in the U.S. (except CT, DE, ID, MA, ME, MT, NH, NV, OR, RI, VT, WA and WY), restricted to the transportation of the traffic of San Antonio Foreign Trading Company, for 180 days. Supporting shipper(s): San Antonio Foreign Trading Company, 306 West Rhapsody, San Antonio, TX 78216. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-147TA), filed November 21, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Plastic film or sheeting in rolls and brattice cloth in rolls or bales* (except in bulk) between points in AL, AR, GA, NC, PA and SC, restricted to the transportation of traffic of D. C. Humphrys Company, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Humphry's Textile Products, Inc., 1241 Carpenter St., Philadelphia, PA 19147. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-148TA), filed November 21, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Meat, meat products and meat by-products and articles distributed by meat packinghouses, as described in Sections A and C of Appendix I to the report in Descriptions in Motor Carrier Certificates, 61 M.C.C. 209 and 766* except hides and commodities in bulk), from the facilities of Vernon Calhoun Packing Company, Inc. at or near Palestine, TX to points in the U.S. (except AK and HI), for 180 days. Supporting shipper(s): Vernon Calhoun Packing Company, P.O. Box 709,

Palestine, TX 75801. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-149TA), filed November 21, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Ethylene Glycol base anti-freeze* in plastic containers (except in bulk) from the facilities of Hy-Port Industries, Inc., at or near Houston, TX to points in the United States (except AK and HI), for 180 days. Supporting shipper(s): Hy-Port Industries, Inc., P.O. Box 755, Highlands, TX 77562. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-150TA), filed November 21, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Frozen, inedible meats and meat by-products,* from the facilities of Consolidated Pet Foods, Inc., at or near Amarillo, TX, to points in the U.S. (except AK and HI), for 180 days. Supporting shipper(s): Consolidated Pet Foods, Inc., P.O. Box 30488, Amarillo, TX 79120. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 145152 (Sub-151TA), filed November 26, 1979. Applicant: BIG THREE TRANSPORTATION, INC., P.O. Box 706, Springdale, AR 72764. Representative: Don Garrison, P.O. Box 1065, Fayetteville, AR 72701. *Paper and paper articles; fibreboard; plastic and metal containers; fittings; and materials, equipment and supplies* used in the manufacture thereof, between points in the U.S. and the facilities of Container Corporation of America, at or near Cincinnati, OH; St. Louis, MO; Dallas, Ft. Worth and Houston, TX; Rock Island, IL; Sioux City, IA; Muskogee, OK; and Memphis, TN, restricted to the transportation of traffic originating at or destined to the facilities of Container Corporation of America, for 180 days. Supporting shipper(s): Container Corporation of America, P.O. Box 1441, Ft. Worth, TX 76101. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 14163 (Sub-5TA), filed November 16, 1979. Applicant: DONALD MULDER d.b.a. DON MULDER TRUCKING, 1735 North 50th Street, Lincoln, NE 68504. Representative: Lavern R. Holderman, 521 S. 14th St., Suite 500, P.O. Box 81849, Lincoln, NE 68501. *Printed matter (except in bulk)* from the facilities of or utilized by Tace Press, Inc. at or near New York, NY; Gateway Press, Inc. at or near Louisville, KY; Lienett Printing Co. at or near San Bernadino, CA; L.B.I. Trade Bindery, at or near Garden Grove, CA; Rogers Bindery at or near San Bernardino, CA; Messenger Graphics at or near Phoenix, AZ; and Western Publishing Co. at or near Racine, WI and points in their respective commercial zones, to Berea, OH; Marceline, MO; New Orleans, LA; Jeffersonville, IN; Laguna Niguel, CA; and Lincoln, NE, and points in their respective commercial zones for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): U.S. Government Printing Office, George L. Postle, Chief, Traffic Division, North Capitol & "H" Streets N.W., Washington, D.C. 20401. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 145203 (Sub-5TA), filed September 24, 1979. Applicant: REITZEL TRUCKING CO., INC., 7401 Fremont Pike, Perrysburg, OH 43551. Representative: Paul F. Beery, 275 East State St., Columbus, OH 43215. *Auto parts, and equipment, materials and supplies used in the manufacture of auto parts* (except commodities in bulk), between the plantsite of the Chrysler Corporation in Perrysburg Township, Lucas County, OH, on the one hand, and on the other, points in WI, MO, DE, IN, MI, and IL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Chrysler Corporation, 8000 Chrysler Drive, Perrysburg, OH 43551. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 145363 (Sub-6TA), filed November 23, 1979. Applicant: BREWTON EXPRESS, INC., P.O. Box 508, Winnfield, LA 71483. Representative: Brian E. Brewton (same address as applicant). Applicant is applying for authority to operate as a contract carrier over irregular routes transporting *building materials, except bulk in tank vehicles,* between points in the United States in and east of ND, SD, NE, CO, and NM, for 180 days, under a continuing contract or contracts with American Paneling of Nederland, TX. Applicant has filed an underlying ETA seeking 90 days. Supporting shippers: American Paneling, P.O. Box 177, Nederland, TX 77627. Send protests to: Robert J. Kirspel, DS, ICC, T-9038 Federal Bldg., 701 Loyola Ave., New Orleans, LA 70113.

MC 145593 (Sub-5TA), filed November 20, 1979. Applicant: HAROLD SHULL TRUCKING, INCORPORATED, P.O. Box 1533, Hickory, NC 28601. Representative: Harold D. Shull, Curley Fish Camp Rd., Hildebran, NC 28637. *(1) plastic bottles and (2) petroleum products* (1) from Port Clinton, Columbus, and Elyria, OH to Elizabethton, TN and points in NC and (2) from Bradford, PA to Charlotte, NC, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers: There are four supporting shippers in this application. Their statements may be examined at the office listed below and Headquarters. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd.—Rm. CC516, Charlotte, NC 28205.

MC 145622 (Sub-3TA), filed November 30, 1979. Applicant: S & H TRANSPORTATION, Jerry G. Harris d.b.a., P.O. Box 137, Wright City, MO 64105. Representative: Frank W. Taylor, Jr., Suite 600, 1221 Baltimore Ave., Kansas City, MO 64105. *Dry grocery products* between the facilities of Aldi, Inc., at or near Wright City, MO, on the one hand, and, on the other, points in MO, KS, IL, IN, IA, AR, TN and KY, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers: Aldi, Inc., 3400 Mt. Pleasant St., Burlington, IA 52601. Send protests to: P. E. Binder, DS, ICC, Rm. 1465, 210 N. 12th St., St. Louis, MO 63101.

MC 145802 (Sub-4TA), filed November 5, 1979. Applicant: RONALD E. REED, d.b.a., TRIPLE R TRUCKING, RFD, Laurens, IA 50554. Representative: James M. Hodge, 1980 Financial Center, Des Moines, IA 50309. *Frozen bakery products* from Nashville, TN, to points in AR, IA, IL, KS, MI, MN, MO, NE, OK, OR, TX, WA, and WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers: Tennessee Doughnut Corp., 2975 Armory Drive, Nashville, TN 37204. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 146213 (Sub-6TA), filed November 20, 1979. Applicant: JAMES P. DOYLE, d.b.a. J. DOYLE TRUCKING, P.O. Box 76, Wisconsin Dells, WI 53965. Representative: Jack Meyer, 111 E. Wisconsin Ave., Milwaukee, WI 53202. *Paper and paper products, cleaning compounds and plastic containers and dispensers of cleaning compounds* (except commodities in bulk) from facilities of Bay West Paper Co. at Green Bay, WI to points in OK & TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting Shipper(s): Bay West Paper Co., 1100 W. Mason St., Green Bay, WI 54303. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 146293 (Sub-38TA), filed September 28, 1979. Applicant: REGAL TRUCKING CO., INC., 95 Lawrenceville Industrial Park Circle, N.E., Lawrenceville, GA 30245. Representative: Richard M. Tettlebaum,

Fifth Floor, Lenox Towers South, 3390 Peachtree Road, N.E., Atlanta, GA 30326. *(1) Carpet strips, molding, staples, nails, adhesives, sealants, solvents, stains, wood preservations; and (2) materials, equipment and supplies used in the manufacture, distribution and sale of the commodities named in (1) above,* between points in Los Angeles County, CA and Calexico, CA; and from Calexico, CA to points in the U.S. on and east of U.S. Highway 85. Restriction: Restricted against the transportation of commodities in bulk, in tank vehicles, for 180 days. An underlying ETA seeks 90 days authority. Supporting Shipper(s): Roberts Consolidated Industries, Inc., 601 N. Baldwin Park Blvd., City of Industry, CA 91749. Send protests to: Sara K. Davis T/A, ICC, 1252 W. Peachtree St., NW., Room 300, Atlanta, GA 30309.

MC 146423 (Sub-8TA), filed November 8, 1979. Applicant: Stephen Hrobuchak d.b.a., TRANS-CONTINENTAL REFRIGERATED LINES, P.O. Box 1456, Scranton, PA 18503. Representative: Joseph F. Hoary, 121 S. Main St., Taylor, PA 18517. *Paint, roofing cement, masonry, cleaning compounds, and glazing and caulking compounds, adhesives and advertising materials,* from Dunmore, PA to Visalia, CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting Shipper(s): United Gilsonite Laboratories, Jefferson Ave. & New York St., Dunmore, PA 18512. Send protests to: ICC, 101 N. 7 St., Philadelphia, PA 19106.

MC 146453 (Sub-1TA), filed November 30, 1979. Applicant: TOM ROWE SERVICES, 107 Roberts Lane, Bakersfield, CA 93308. Representative: Earl N. Miles, 3704 Candlewood Drive, Bakersfield, CA 93306. Clay, in bulk and in packages, from the facility of Industrial Minerals Ventures located at Imvite, Nye County, Nevada to points in Kern, Los Angeles, Monterey, Santa Barbara and Ventura Counties, California, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting Shipper(s): Industrial Minerals Ventures, Inc., Sale Manager, 240 Columbus, Bakersfield, CA 93305. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA. 90012.

MC 146643 (Sub-23TA), filed October 1, 1979. Applicant: DAVID CREECH TRANSPORTATION SYSTEMS, INCORPORATED, 3202 South State Street, South Chicago Heights, IL 60411. Representative: Donald B. Levine, 39 South LaSalle Street, Chicago, IL 60603. *Contract carrier:* irregular routes: *Such commodities as are dealt in by wholesale and retail hardware stores,* from Chicago, Cary and Rosemont, IL to Belton, MO for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Cotter & Company, 2740 Clybourn Avenue, Chicago, IL 60614. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 146672 (Sub-1TA), filed October 3, 1979. Applicant: SOUTH PARK MOTOR LINES INC., d.b.a. COLORADO ALL STATE TRANSPORTATION INC., 1420 38th Street, Denver, CO 80205. Representative: Richard A. Eshe or Lois Mae Eshe (same address as above). *Irregular/contract—Building materials, cement, reinforcing steel and packaged landscape rock,* from Denver, CO to job sites in WY and return with ornamental rock in sacks from job sites in WY, for 180 days. Supporting shipper(s): Rio Grande Co., 123 Santa Fe Dr., Denver, CO 80223. Send protests to: H. Ruoff, 492 U.S. Customs House, Denver, CO 80202.

MC 146722 (Sub-2TA), filed November 14, 1979. Applicant: JOE PRYOR d.b.a. JOE TRANSPORT, 1616 E. 78th Ave., Space 72, Denver, CO 80229. Representative: Joe Pryor (same address as applicant). *Iron and steel articles and parts, scrap metal, scrap aluminum and brick* (1) from Denver, CO and its commercial zone to CA, NV and UT; (2) from Los Angeles, CA and its commercial zone to Denver, CO for 180 days. Underlying ETA filed seeking 90 days authority. Supporting shipper(s): Anaheim Builders Supply, Inc., 1635 South State College Blvd., Anaheim, CA 92806; Engbar Pipe & Steel Co., 4755 Washington St., Denver, CO 80216; and Sun Valley Extrusion, 4525 Ironton St., Denver, CO 80239. Send protests to: R. Buchanan, 492 U.S. Customs House, Denver, CO 80202.

MC 146736 (Sub-4TA), filed October 3, 1979. Applicant: JOHN LAUBENTHAL, d.b.a. LAUBENTHAL REFRIGERATED TRANSPORT, 1461 Garford Ave., Elyria, OH 44035. Representative: Richard H. Brandon, P.O. Box 97, 220 W. Bridge St., Dublin, OH 43017. *Edible flour compounds (except in bulk)* between Brook Park, OH, on the one hand, and, on the other, points in MA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): The Gorton Group Div., General Mills, Inc., 327 Main St., Gloucester, MA 01930. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Philadelphia, PA 19106.

MC 146743 (Sub-2TA), filed October 30, 1979. Applicant: YAGER TRUCKING, INC., 1116 Gum Avenue, Woodland, CA 95695. Representative: Milton W. Flack, 4311 Wilshire Blvd., Suite 300, Los Angeles, CA 90010. *Frozen potatoes, in vehicles equipped with mechanical refrigeration,* from Pasco, WA to: (a) facilities of Santa Rosa Frozen Foods, Inc., Santa Rosa, CA and (b) facilities of Marin Produce, Inc., San Rafael, CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Santa Rosa Frozen Foods, Inc., 120 Foley Street, Santa Rosa, CA 95401; and Marin Produce, Inc., 700 "A" Street, San Rafael, CA 94901. Send protests to: A. J. Rodriguez, 211 Main Street, Suite 500, San Francisco, CA 94105.

MC 146782 (Sub-24TA), filed November 14, 1979. Applicant: ROBERTS CONTRACT CARRIER CORP., 300 First Ave. South, Nashville, TN 37201. Representative: Stephen L. Edwards, 806 Nashville Bank and Trust Bldg., Nashville, TN 37201. *Iron and steel articles,* from the facilities of Georgetown Steel Corp., at or near Georgetown, SC, to points in AL, AR, CT, DE, DC, FL, MN, GA, IL, IN, KY, ME, MD, MA, MI, MS, NH, NJ, NY, NC, OH, PA, RI, TN, VT, VA, WV, and WI, for 180 days. Supporting shipper(s): Georgetown Steel Corp., P.O. Box 619, Georgetown, SC 29440. Send protests to: Glenda Kuss, TA, ICC, Suite A-422, U.S. Courthouse, 801 Broadway, Nashville, TN 37203.

MC 147223 (Sub-2TA), filed December 3, 1979. Applicant: AMERICAN PRIORITY ENTERPRISES, INC., 408 East Elizabeth Avenue, Linden, NJ 07601. Representative: Robert B. Pepper, 168 Woodbridge Avenue, Highland Park, NJ 08904. Contract carrier, irregular routes for 180 days. Drugs, medicine, pharmaceuticals, stomahesive products, toothbrushes, store display, printed matter and returned merchandise, (1) between facility of E. R. Squbb, Somerset, NJ, on the one hand, and, on the other, Somerville, MA. (2) from the facility of Surgicare (Squibb Division) Greensboro, NC to New Brunswick, NJ. (3) between the airport facilities in the New York, NY and the NJ area, on the one hand, and, on the other, Kenly, NC. Under a continuing contract with E. R. Squibb & Sons, Inc. An underlying ETA seeks 90 days authority. Supporting shipper(s): E. R. Squibb & Sons, Inc., P.O. Box 191, New Brunswick, NJ 08903. Send protests to: Robert E. Johnston, DS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 147743 (Sub-1TA), filed November 20, 1979. Applicant: GEMINI TRANSPORT, INC.; P.O. Box 10565, Jefferson, LA 70121. Representative: Harold R. Ainsworth, 2307 American Bank Bldg., New Orleans, LA 70130. Applicant is seeking authority as a common carrier over *regular routes*

transporting *Intermodal containers (containing freight):* (1) From New Orleans, LA over Interstate Hwy. 10 to Port Allen, LA thence over LA Hwy. 1 to Plaquemine, LA and return over the same route, serving all intermediate points and; (2) Between New Orleans, LA and Mobile, AL from New Orleans, LA over interstate Hwy. 10 to its junction with U.S. Hwy. 49 thence over U.S. Hwy. 49 to Gulfport, MS, for 180 days. Applicant has filed an underlying ETA seeking 90 days. Supporting shipper(s): H. E. Schurig & Co. of LA, 1810 ITM Bldg., New Orleans, LA 70130; and Hansen & Tidemann, Inc., 442 Canal St., Suite 310, New Orleans, LA 70130. Send protests to: Robert J. Kirspel, DS, ICC, T-9038 Federal Bldg., 701 Loyola Ave., New Orleans, LA 70113.

MC 148183 (Sub-8TA), filed November 16, 1979. Applicant: ARROW TRUCK LINES, INC., P.O. Box 432, Gainesville, GA 30501. Representative: Pauline E. Meyers, Suite 348, Pennsylvania Bldg., 425 13th St., N.W., Washington, DC 20004. *Frozen fruit juices, frozen fruit juice concentrate, fresh canned and fresh fruit and vegetable juices, fruit sections and fruit salads, (in refrigerated vehicles, except in bulk),* from the facilities of Citrus Central, Inc., Bartow, Winter Haven, Haines City, Lakeland, Howey-in-the-Hills, Plymouth, and Umatilla, FL to points in KY, TN, OH, IN, MI, IL, WI, and MN for 180 days. Supporting shipper(s): Citrus Central, Inc., P.O. Box 17774, Orlando, FL 32860. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 148183 (Sub-9TA), filed December 7, 1979. Applicant: ARROW TRUCK LINES, INC., P.O. Box 432, Gainesville, GA 30501. Representative: Pauline E. Meyers, Suite 348, Pennsylvania Bldg., 425 13th St., N.W., Washington, DC 20004. *Frozen foods, (in refrigerated vehicles, except in bulk)* from the facilities of Roman Meal Frozen Foods Company, Decatur, IN to points in FL, GA, NC, and SC for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Roman Meal Frozen Frozen Company, 2101 South Tacoma Way, Tacoma, WA 98409. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 148322 (Sub-1TA), filed October 1, 1979. Applicant: RONALD A. NEVEU, d.b.a. MIDWEST ENTERPRISES, Rural Route No. 1, P.O. Box 725, Clifton, IL 60927. Representative: Edward D. McNamara, Jr., 907 South Fourth Street, Springfield, IL 62703. *Pickles and pickle products in brine and sauerkraut requiring protective service,* from Chicago, IL commercial zone to points in the states of OK, TX, CA, FL, GA, NC, SC, OR, WA, TN, KY, AZ, NV, UT and ID for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Schwartz Pickle Company, 160 N. Loomis St., Chicago, IL 60607. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 148323 (Sub-3TA), filed October 9, 1979. Applicant: A. B. & K. TRUCKING, INC., 5535 Walter Avenue, Hammond, IN 46420. Representative: Donald W. Smith, Suite 945, 9000 Keystone Crossing, Indianapolis, IN 46240. (1) *Void Fillers,* from the facilities of Down River Forest Products, subsidiary of Greif Bros. Corporation at or near Dixmoor, IL, to points in IN, KY, OH, MI, WI, MN, IA, and MO, (2) *Materials and equipment used in the manufacture and distribution of void fillers,* from the points named in (1) above to the facilities of Down River Products Division of Greif Bros. Corporation at or near Dixmoor, IL for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Down River Forest Products, 14153 S. Western Avenue, Dixmoor, IL 60406. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 148343 (Sub-1TA), filed November 13, 1979. Applicant: W. C. FORE TRUCKING, INC., P.O. Box 3058, Gulfport, MS 39503. Representative: Wallace C. Fore (same as applicant). *Contract carrier;* irregular routes; *Posts, poles and pilings,* from Gulfport, MS and Mobile, AL, to points in TX, OK, KS, CO, NE, IA, and SD, for the account of Crown Zellerbach Corp., for 180 days. Supporting shipper: Crown Zellerbach Corp., P.O. Box 1060, Bogalusa, LA 70427. Send protests to: Alan Tarrant, D/S, ICC, Fed. Bldg., Suite 1441, 100 W. Capitol St., Jackson, MS 39201.

MC 148353 (Sub-1TA), filed October 10, 1979. Applicant: PORTER LINES, INCORPORATED, 609 W. Rillito St., Tucson, AZ 85705. Representative: Milton W. Flack, 4311 Wilshire Blvd., Suite 300, Los Angeles, CA 90010. *(1) Epoxy compounds, liquid plastic materials, ink materials, paint, paint thinning compounds and chemicals (except commodities in bulk), in vehicles equipped with mechanical refrigeration, (2) printing advertising matter and cable splicing kits when transported in the same vehicles with commodities in (1) above,* from the facilities of Hysol Division, The Dexter Corporation, located at Olean, NY, to Lees Summit and Kansas City, MO and Los Angeles Harbor and City of Industry, CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Hysol Division, The Dexter Corporation, 211 Franklin St., Olean, NY 14760. Send protests to: Ronald R. Mau, District Supervisor, 2020 Federal Bldg., 230 N. 1st Ave., Phoenix, AZ 85025.

MC 148362 (Sub-2TA), filed September 27, 1979. Applicant: HAR-BET, INC., 4772 South Expressway, Suite 123, Forest Park, GA 30050. Representative: Bruce E. Mitchell, 3390 Peachtree Road, N.E., Atlanta, GA 30326. *Contract carrier:* Irregular routes *such merchandise as is dealt in or used by retail, wholesale or chain grocery, drug and food business houses* (except commodities in bulk, in tank vehicles) between the facilities of Gulf Atlantic Distribution Services at or near Forest Park, GA, on the one hand, and, on the other, points in NC, SC, TN, AL, MS and LA, under contract or continuing contracts with Gulf Atlantic Distribution Services, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Gulf Atlantic Distribution Services, P.O. Box 2588, Houston, TX 77001. Send protests to: Sara K. Davis, T/A, ICC, 1252 W. Peachtree St., NW, Room 300, Atlanta, GA 30309.

MC 148393 (Sub-2TA), filed October 26, 1979. Applicant: ABLE EXPRESS CO., INC., 2170 Buck St., Cincinnati, OH 45214. Representative: Jerry B. Sellman, 50 W. Broad St., Columbus, OH 43215. *General commodities* (except those of unusual value, Class A or B explosives, household goods as defined by the Commisison, commodities in bulk, and those requiring special equipment) between the facilities of Nationwide Shippers Cooperative Association, Inc., located at or near Cincinnati, OH, on the one hand, and, on the other, points in Baltimore, MD, Phildelphia, PA and New York, NY and its commercial zone, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Nationwide Shippers Cooperative Assoc, Inc., 1400 Gest St., Cincinnati, OH 45203. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St, Rm. 620, Phila, PA 19106.

MC 148413 (Sub-1TA), filed September 25, 1979. Applicant: ERICK W. BEUTE & DAUGHTERS, INC., 3901 Bell St., Lawrence Park, PA 16511. Representative: Joseph F. MacKrell, 120 West 10 Street, Erie, PA 16501. *Contract carrier;* irregular routes: (1) *Scrap iron and pig iron,* from the facilities of General Electric Company, Erie, PA, and from the dock facilities of the Port of Erie, Erie, PA to the facilities of General Electric Company, Elmira, NY; and (2) *Iron castings,* from the facilities of

General Electric Company, Elmira, NY, to the facilities of General Electric Company, Erie, PA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): General Electric Company, 100 Woodlawn Ave., Elmira, NY 14902, and General Electric Company, 2901 East Lake Rd., Erie, PA 16511. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 148422, filed September 28, 1979. Applicant: TWOWAY SUPPLY, INC., Box 347, Pond Creek, OK 73766. Representative: John T. Farmer (same address as applicant). *Iron and/or steel articles, including pipe,* from TX, to OK and KS, for 180 days. Supporting shipper: Crescent Pipe & Supply Co., 2601 N.W. Exp.—Oil Center East, Oklahoma City, OK 73112. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 148432 (Sub-1TA), filed October 31, 1979. Applicant: MARGO TRANSPORT, INC., 1317 East Scott, Olney, IL 62450. Representative: MICHAEL W. O'HARA, 300 Reisch Building, Springfield, IL 62701. *Contract carrier:* irregular routes: *Paper, paper products and materials and supplies used in the manufacture and distribution of paper products (except in bulk) for the account of Inland Container Corporation,* between Fenton, MO on the one hand, and on the other, points in AR, IL, IN, IA, KY, KS and TN for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Inland Container Corporation, 151 North Deleware, Indianapolis, IN 46206. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 148433 (Sub-1TA), filed September 27, 1979. Applicant: GENERAL PARTS EXPRESS, INC., P.O. Box 243, Hanover, MD 21076. Representative: Frank B. Hand, Jr., P.O. Drawer "C", Berryville, VA 22611. *Contract; Irregular: Automotive parts and automotive accessories and such commodities as are dealt in or used by distributors of automotive parts* (except commodities in bulk), between the facilities of General Motors Corporation (General Motors Parts Division), Parkway Industrial Center, Hanover, MD, on the one hand, and, on the other, points in Kent, New Castle, and Sussex Counties, DE; York, Adams, Franklin, Fulton, Cumberland, Huntingdon, Mifflin, Juniata, Perry, Dauphin, Northumberland, Snyder, Union, Montour, Lycoming, Clinton, and Centre Counties, PA; Frederick, Shenandoah, Clarke, Warren, Page, Madison, Rappahannock, Fauquier, Loudoun, Culpeper, Prince William, Arlington, Fairfax, Accomac, and Northampton Counties, VA; Berkeley, Morgan, Hampshire, Jefferson, Mineral, Hardy, Grant, Tucker, Randolph, and Pendleton Counties, WV; and the District of Columbia, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: General Motor Corporation, (General Motors Parts Division), 6060 W. Bristol Road, Flint, MI 48554. Send protests to: ICC, Fed. Res. Bank Bldg., 101 N. 7th Street—Rm. 620, Phila., PA 19106.

MC 148443 (Sub-1TA), filed November 16, 1979. Applicant: SOUTH SHORE EQUIPMENT CORP., 1284 Millet Road, Avon, OH 44011. Representative: Paul F. Beery, 275 East State St., Columbus, OH 43215. *Iron and steel; and iron and steel articles,* between Sheffield, OH, on the one hand, and on the other, points in MI, IL, IN, KS, MO, PA, FL, GA, MS, CO, ND, SD, TN, WY, NE, WI, MN, IA, TX, NJ, CA, WA, WV, OR, NY, MT, LA, AL and UT for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Servisteel Corporation, 4920 French Creek Rd., Lorain, OH 44054. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 148443 (Sub-2TA), filed November 8, 1979. Applicant: SOUTH SHORE EQUIPMENT CORP., 1284 Miller Rd., Avon, OH 44011. Representative: Paul F. Beery, 275 E. State St., Columbus, OH 43215. *Castings* from the plant site of Abex Corporation, Engineering Products Division, at or near Elyria, OH to points in the Continental U.S., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Abex Corp., Taylor St. and Abby Rd., Elyria, OH 44035. Send protests to: ICC, 101 N. 7 St., Philadelphia, PA 19106.

MC 148443 (Sub-3TA), filed October 25, 1979. Applicant: SOUTH SHORE EQUIPMENT CORP., 1284 Miller Rd., Avon, OH 44011. Representative: Paul F. Beery, 275 E. State St., Columbus, OH 43215. *Dredging equipment, pipe; and supplies, equipment and materials used in the construction, dredging, and operation of ports and waterways,* between (a) Monroe, MI, on the one hand, and, on the other points in OH, NY, FL, IL, WI, MN, MT, WV, TN, GA, WA, CA, OR, NY SD, and CO and (b) between Lorain, Avon, and Cleveland, OH on the one hand, and, on the other, points in MI, WI, IL, MN, NY, FL, MT, WV, TN, KY, GA, WA, CA, OR, ND, SD, CO, AL, IA, NE, and WY, for 180 days. Supporting shipper: Ajax Corp., 1294 Miller Rd., Avon, OH 44011. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Room 620, Phila., PA 19106.

MC 148473 (Sub-1TA), filed November 9, 1979. Applicant: JOHN F. MUNN, d.b.a. JOHN F. MUNN TRUCKING, 408 Vine Street, Euless, Texas 76039. Representative: Billy R. Reid, 1721 Carl Street, Fort Worth, Texas 76103. *Used, salvage and inoperable fork lifts* between Dallas, Harris and Tarrant Counties, TX, on the one hand, and on the other, points in the United States (except AK and HI) for 180 days. An underlying ETA for 90 days has been filed. Supporting shipper: Fork Lift City, Inc., 2100 East Airport Freeway, Irving, TX 75062 Southline Equipment Co., 700 West Cavalcade, Houston, TX 77009. Send protests to: Marianne Minnich, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Ft. Worth, TX 76102.

MC 148512 (Sub-1TA), filed November 21, 1979. Applicant: WESTERN TANK LINE, INC., 2222 North 11th Street, Omaha, NE 68110. Representative: Greg A. Dickinson, Suite 610; 7171 Mercy Road, Omaha, NE 68106. *Liquefied petroleum gases, in bulk, in tank vehicles* from points in IA to points in MN and SD for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Farmers Union Central Exchange (CENEX), Elmer Brenna, Traffic Supervisor-Petroleum Division, P.O. Box 43089, St. Paul, MN 55164. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 148532, filed September 27, 1979. Applicant: GREEN THUMB COMMODITIES, INC., Box J, Oldham, SD 57051. Representative: Linus Eykamp (same address as applicant). *Contract carrier:* irregular routes: *Feed and feed ingredients and health products* from Sioux City, IA to Huron, Lake Preston, Elkton, Brookings, Flandreau and Colman, SD for the account of Ralston Purina Co. for 180 days. Supporting shipper: Ralston Purina Co. Sioux City, IA. Send protests to: J. L. Hammond, DS, ICC, Room 455, Federal Bldg., Pierre, SD 57501.

MC 148682 (Sub-1TA), filed November 2, 1979. Applicant: TRAN COM, LTD., P.O. Box 542, Hillsboro, ND 58045. Representative: Gene P. Johnson, P.O. Box 2471, Fargo, ND 58108. *Contract carrier:* irregular routes: *Limerock,* from Duluth, MN to the facilities of American Crystal Sugar Company located near Hillsboro, ND, for the account of American Crystal Sugar Company, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: American Crystal Sugar Company, 101 North Third Street, Moorhead, MN 56560. Send protests to: H. E. Farsdale, DS, ICC, Room 268 Fed. Bldg. & U.S. Post

Office, 657 2nd Avenue North, Fargo, ND 58102.

MC 148692 (Sub-1TA), filed November 6, 1979. Applicant: EMPIRE DELIVERY, INC., 3930 Blake Street, Denver, CO 80203. Representative: Raymond M. Kelly, 450 Capitol Life Center, Denver, CO 80203. *Beverages in containers and empty containers on return,* from points in KY, IL, OH, and MI to points in Denver, CO, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: McKesson Wine and Spirits, Inc., 1800 Bassett Street, Unit B, Denver, CO 80202. Send protests to: H. Ruoff, 492 U.S. Customs House, Denver, CO 80202.

MC 148702 (Sub-1TA), filed October 10, 1979. Applicant: A. PREWITT SAMS, dba Sams Carpet Service, 100 Talbott St. Winchester, KY 40391. Representative: Harry Ross, 58 So. Main St., Winchester, KY 40391. Floor coverings and articles used in installation of floor coverings, from points in GA, north of Interstate Hwy. 20, to points in Clark and Fayette Counties, KY. for 180 days. Supporting shipper(s): (4) Hisle Carpets, Inc., 142 Burt Rd., Lexington, KY. 40503; Holland Floor Coverings, Inc., 1805 N. Limestone, Lexington, KY. 40503. Sams floor coverings (same as applicant) Dickens floor Covering, 187 Moore Drive, Lexington, KY, 40503. Send protests to: Ms. Clara L. Eyl, T/A, ICC, 426 Post Office Bldg., Louisville, KY, 40202.

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MC 488 (Sub-14TA) filed October 19, 1979. Applicant: BREMAN'S EXPRESS COMPANY, 318 Haymaker Rd., Monroeville, PA 15146. Representative: Leslie S. Breman (same as applicant). *Vegetable tanning extract,* from Marion, OH to Curwensville, PA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Howes Leather Co., P.O. Box 57, Curwensville, PA 16833. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Room 620, Philadelphia, PA 19106.

MC 488 (Sub-15TA) filed November 13, 1979. Applicant: BREMAN'S EXPRESS COMPANY, 318 Haymaker Road, Monroeville, PA 15146. Representative: Leslie S. Breman (same as applicant). *Vegetable tanning extract,* from Marion, OH to Frank, WV, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Howes Leather Co., Inc., Box 97, Frank, WV 24937. Send protests to: I.C.C., Fed. Res. Bank. Bldg., 101 N. 7th St., Room 620, Philadelphia, PA 19106.

MC 808 (Sub-64TA) filed October 29, 1979. Applicant: ANCHOR MOTOR FREIGHT, INC., 29201 Telegraph Rd., Suite 522, Southfield, MI 48034. Representative: J. A. Kundtz, 1100 National City Bank Bldg., Cleveland, OH 44114. *Contract carrier:* irregular routes: *Motor vehicles, in truckaway movements,* from Wilimington, DE to points in IA, MN, MO and WI, under continuing contract of contracts with General Motors Corporation for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): General Motors Corporation, GM Logistics Operations, 30007 Van Dyke Avenue, Warren, MI 48090. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 2229 (Sub-232TA) filed November 26, 1979. Applicant: RED BALL MOTOR FREIGHT, INC., 3177 Irving Blvd., Dallas, TX 75247. Representative: Jackie Hill (address as above), Common carrier, regular routes, *general commodities, except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment* serving the plantside of International Paper Company near Mansfield, LA in De Soto Parish, LA, as an off-route point in conjunction with carrier's regular routes for 180 days. Carrier intends to tack its authority and intends to interline with other carriers. Underlying ETA filed for 90 days. Supporting shipper(s): International Paper Company, P.O. Box 160707, Mobile, AL 36616. Send protests to: Opal M. Jones, TCS, ICC, 819 Taylor St., 9A27 Federal Bldg., Fort Worth, TX 76102.

MC 2229 (Sub-233TA), filed November 21, 1979. Applicant: RED BALL MOTOR FREIGHT, INC., 3177 Irving Blvd., Dallas, Texas 75247. Representative: Jackie Hill (address same as carrier). *Cement, in bags* from Dallas, TX to points in the states of Utah, Colorado, Oklahoma and Kansas for 180 days. Underlying ETA for 90 days has been filed. Supporting shipper(s): Gifford Hill Chemical, 4930 River Oaks Road, Dallas, TX 75216. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 22509 (Sub-25TA), filed November 15, 1979. Applicant: MISSOURI-NEBRASKA EXPRESS, INC., 5310 St. Joseph Ave., St. Joseph, MO 64502. Representative: E. Wayne Farmer, P.O. Box 26010, Kansas City, MO 64196. *General commodities,* between the facilities of Geeco, Inc. in St. Joseph, MO and the facilities of Acoustics Development Corporation in Northbrook, IL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Geeco, Inc., 3800 South 48th Terrace, St. Joseph, MO 64503. Send protests to: Vernon Coble, D/S, 600 Fed. Bldg., 911 Walnut St., Kansas City, MO 64106.

MC 22509 (Sub-26TA), filed November 19, 1979. Applicant: MISSOURI-NEBRASKA EXPRESS, INC., 5310 St. Joseph Avenue, P.O. Box 939, St. Joseph, MO. 64505. Representative: E. Wayne Farmer, 27th Floor, City Center Square, P.O. Box 26010, Kansas City, MO 64196. *General commodities,* between the facilities of Quaker Oats Company in St. Joseph, MO and the facilities of Quaker Oats Company in Pekin, Peoria and East Peoria, IL, for 180 days. Supporting shipper(s): The Quaker Oats Company, 2811 S. Eleventh Street, P.O. Box 28, St. Joseph, MO 64502. Send protests to: Vernon V. Coble, DS, ICC, 600 Federal Building, 911 Walnut St., Kansas City, MO 64106.

MC 30089 (Sub-10TA), filed November 8, 1979. Applicant: FRANK W. LILLY, INC., P.O. Box 111, Turtle Creek, PA 15145. Representative: Christian V. Graf, Esq., 407 N. Front St., Harrisburg, PA 17101. Contract carrier-irregular routes: *Materials, equipment and supplies used or useful in the preparation of foodstuffs,* from the facilities of Dewey and Almy Chemical Division at Woodbury, NJ to the facilities of Heinz USA, Division of H. J. Heinz Company at or near Weirton, WV, restricted to traffic originating at and destined to the named origin and destination, under continuing contract(s) with Heinz USA, Division of H. J. Heinz Company, Pittsburgh, PA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Heinz USA, Division of H. J. Heinz Co., P.O. Box 57, Pittsburgh, PA 15239. Send protests to: ICC, 101 N. 7 St., Philadelphia, PA 19106.

MC 31389 (Sub-288TA), filed November 13, 1979. Applicant: McLEAN TRUCKING COMPANY, 1920 West First St., Winston-Salem, NC 27104. Representative: David F. Eshelman, P.O. Box 213, Winston-Salem, NC 27102. *Common* carrier-*Regular* routes; *General commodities (except those of unusual value; Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment)* serving points in Sheboygan, Manitowoc, Ozaukee, Washington, Dodge, Columbia, Dane, Jefferson, Rock, Waukesha, Racine, Kenosha, and Walworth Counties, WI and South Beloit, IL, as off-route points in connection with Applicant's regular-route operations, for 180 days. An underlying ETA seeks 90 days authority. Applicant does intend to tack the authority here applied for to its MC-31389. Applicant also intends to interline with other carriers at all points.

Supporting shipper(s): There are 65 supporting shipper statements. Their statements may be examined at the office listed below or Headquarters. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd., Room CC516, Charlotte, NC 28205.

MC 35358 (Sub-49TA) filed November 15, 1979. Applicant: BERGER TRANSFER & STORAGE, INC., 3720 Malacaster Drive N.E., Minneapolis, MN 55421. Representative: Andrew R. Clark, 1000 First National Bank Bldg., Minneapolis, MN 55402. *Furniture and fixtures* between Grand Rapids, MI on the one hand, and on the other, points in the United States in and east of WI, the Upper Peninsula of MI, IL, MO, AR, and LA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): There are 5 shippers. Their statements may be examined at the office listed below and Headquarters. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 35358 (Sub-50TA) filed November 20, 1979. Applicant: BERGER TRANSFER & STORAGE, INC., 3720 Macalaster Dr. N.E., Minneapolis, MN 55421. Representative: Andrew R. Clark, 1000 First National Bank Bldg., Minneapolis, MN 55402. *Furniture and fixtures,* between Holland, MI, on the one hand, and on the other, points in the U.S. in and east of WI, the Upper Peninsula of MI, IL, MO, AR, and LA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Baker, Knapp, & Tubbs, Holland, MI 49423. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Mpls., MN 55401.

MC 41098 (Sub-51TA) filed November 28, 1979. Applicant: GLOBAL VAN LINES, INC., Number One Global Way, Anaheim, CA 92803. Representative: Alan F. Wohlstetter, Denning & Wohlstetter, 1700 K Street, N.W., Suite 301, Washington, DC 20006. *Air distribution equipment terminal devices,* from Huntsville, AL, to points in the United States (except AK and HI), for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Barber-Colman Company, Vice-President & Division Manager, 4910 Moores Mill Road, Huntsville, AL 35811. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 41098 (Sub-52TA) filed November 15, 1979. Applicant: GLOBAL VAN LINES, INC., Number One Global Way, Anaheim, CA 92803. Representative: Alan F. Wohlstetter, Dennis & Wohlstetter, 1700 K Street, N.W., Washington, DC 20006. *Golf carts, industrial vehicles and related articles,* from the facilities of Nordco Electric Vehicle Division/Nordco Products, Nordskog Industries, Inc., Redlands, CA to points in the United States (except AK, HI and CA), for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Nordco Electric Vehicle Division, Nordco Products, Nordskog Industries, Inc., 26701, Redlands Blvd., Redlands, CA 92373. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Bldg., 300 No. Los Angeles St., Los Angeles, CA 90012.

MC 41098 (Sub-53TA), filed November 9, 1979. Applicant: GLOBAL VAN LINES, INC., Number One Global Way, Anaheim, CA 92803. Representative: Alan F. Wohlstetter, Denning & Wohlstetter, 1700 K Street, N.W., Washington, DC 20006. *Golf carts, industrial vehicles and related articles,* from the facilities of Taylor-Dunn Manufacturing Co., Anaheim, CA to points in the United States (except AK, HI and CA), for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper: Taylor-Dunn Manufacturing Co., 2114 West Ball Road, Anaheim, CA 92803. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Bldg., 300 No. Los Angeles St., Los Angeles, CA 90012.

MC 46829 (Sub-14TA) filed November 9, 1979. Applicant: ALLARD EXPRESS, INC., 806 Elm Street, Watertown, WI 53094. Representative: Wayne W. Wilson, 150 E. Gilman Street, Madison, WI 53703. *General commodities, except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk and those requiring special equipment,* Between Two Rivers, WI, and North Chicago, IL, as follows: From Two Rivers over Wisconsin Highway 42 to Manitowoc, WI, thence over U.S. Hwy 141 to junction Milwaukee County Hwy B, thence over Milwaukee County Hwy B to Milwaukee, WI, thence over Wisconsin Hwy 42 via Racine, WI, to the WI-IL State line, and thence over IL Hwy 42 to North Chicago; From Two Rivers to Milwaukee as specified above, thence over Milwaukee County Hwy H to junction Wisconsin Hwy 38, thence over Wisconsin Hwy 38 to Racine, WI and thence to North Chicago as specified above; From Two Rivers to Milwaukee as specified above, thence over Milwaukee County Hwy AA to junction Milwaukee County Hwy Z, thence over Milwaukee County Hwy Z to junction Wisconsin Hwy 42, and thence to North Chicago as specified above; and Return over these routes to Two Rivers. Service is authorized to and from the off-route points in Milwaukee County, WI. Between points and places in Wisconsin as follows: From Sheboygan over Wisconsin Hwy 32 to Kiel, WI, thence over WI Hwy 57 to Chilton; From Sheboygan over Wisconsin Hwy 23 to Plymouth; From Sheboygan over Wisconsin Hwy 28 to Sheboygan Falls; From Milwaukee over Wisconsin Hwy 19 to Sun Prairie, WI, thence over U.S. Hwy 151 to Madison; From Milwaukee over Wisconsin Hwy 15 to Beloit, WI, and thence over U.S. Hwy 51 South Beloit; IL; From Milwaukee over U.S. Hwy 41 to junction Wisconsin Hwy 36, thence over Wisconsin Hwy 36 to Lake Geneva, WI, and thence over U.S. Hwy 12 to Genoa City; From Racine over Wisconsin Hwy 11 to Janesville; Service is authorized to and from the off-route point of Williams Bay, WI. From Racine over Wisconsin Hwy 20 to Rochester; From Milwaukee over U.S. Hwy 18 to Waukesha, WI, (also from Milwaukee over Wisconsin Hwy 59 to Waukesha) thence over Wisconsin Hwy 59 to Milton, WI, and thence over Wisconsin Hwy 26 to Janesville; Service is authorized to and from the off-route point of Genessee Depot, WI. From Watertown over U.S. Hwy 16 to Portage; Service is authorized to and from the off-route points of Clyman, Reeseville, Fall River, and Pardeeville, WI; From Watertown over Wisconsin Hwy 26 to junction Wisconsin Hwy 33, thence over Wisconsin Hwy 33 to Beaver Dam, WI, thence over U.S. Hwy 151 to Columbus, WI and thence over U.S. Hwy 16 to Portage; From Watertown over Wisconsin Hwy 26 to Fort Atkinson, WI, thence over U.S. Hwy 12 to Whitewater; From Watertown over County Hwy A to Lake Mills, WI, thence over Wisconsin Hwy 30 to junction Wisconsin Hwy 26; From Lake Geneva over Wisconsin 36 to Williams Bay, WI, thence over County Hwy H to junction Wisconsin Hwy 50, and thence over Wisconsin Hwy 50 to Delavan; and Return over these routes to the above-specified origin points. Service is authorized to and from all intermediate points on the above-specified routes. Between points and places in Racine, Kenosha, Burlington, Waukesha, Watertown, Port Washington, Sheboygan, and East Troy, WI, and those in Milwaukee County, WI. Between points in Wisconsin, as follows: From Milwaukee over unnumbered highways via Hales Corners, Muskego, Beg Bend, Caldwell, and Lake Beulah, WI, to junction Wisconsin Hwy 15 near East Troy, Wisconsin; From Hales Corners over unnumbered highway to St. Martin;

From junction unnumbered highway and Wisconsin Hwy 83 near Lake Beulah over Wisconsin Hwy 83 to Mukwonago; From Burlington over Wisconsin Hwy 83 to junction unnumbered highway south of Salem; From Genoa City over unnumbered highways to junction unnumbered highway north of Twin Lakes; From junction Wisconsin Hwy 83 and unnumbered Highway south of Salem over unnumbered highway to Wilmot; From Wilmot over unnumbered highway to junction Wisconsin Hwy 83 south of New Munster; From junction Wisconsin Hwy 83 and unnumbered highway northeast of Silver Lake over unnumbered highway to junction unnumbered highway north of Twin Lakes; From Kenosha over Wisconsin Hwy 50 to junction Wisconsin Hwy 83; From junction Wisconsin Hwy 50 and unnumbered highway over unnumbered highway to Pleasant Prairie; From junction Wisconsin Hwy 50 and U.S. Hwy 45 over U.S. Hwy 45 to Bristol; From junction unnumbered highways north of Lake Elizabeth over unnumbered highway to Lake Elizabeth; and Return over these routes to the above-specified Wisconsin points. All intermediate points.-Between Gibbsville, WI, and Milwaukee, WI From Gibbsville over Wisconsin Hwy 42 to junction Milwaukee County Hwy "B", thence over Milwaukee County Hwy "B" to Milwaukee and return over the same route. Intermediate point: Cedar Grove, WI, Off-route point: Oostburg, WI Between junction Wisconsin Hwy 30 and Wisconsin Hwy 19, and Madison, WI From junction Wisconsin Hwy 30 and Wisconsin Hwy 19, over Wisconsin Hwy 30 to Madison, and return over the same route. Service is authorized to and from the intermediate point of Delafield, WI. Between junction U.S. Hwy 141 and Wisconsin Hwy 57 and junction Wisconsin Hwy 144 and U.S. Hwy 141, From junction U.S. Hwy 141 and Wisconsin Hwy 57 over Wisconsin Hwy 57 to junction Wisconsin Hwy 144, thence over Wisconsin Hwy 144 to junction U.S. Hwy 141, and return over the same route. Service is not authorized to or from the intermediate points. Between junction Racine County Hwy K and Wisconsin Hwy 38, east of Franksville, WI and junction U.S. Hwy 41 and Wisconsin Hwy 36, southwest of Milwaukee, WI, and all intermediate points: From junction Racine County Hwy K and Wisconsin Hwy 38 over Racine County Hwy K to Thompsonville, WI, thence over U.S. Hwy 41 to junction Wisconsin Hwy 36, and return over the same route. Between Beaver Dam, WI, and Markesan, WI, and the off-route points of Manchester and Kinston, WI: From Beaver Dam over Wisconsin Hwy 33 to junction County Hwy A at Randolph, WI, thence over County Hwy A to Markesan (also from junction Wisconsin Hwy 33 and County Hwy A westward over Wisconsin Hwy 33 to junction Wisconsin Hwy 73, thence over Wisconsin Hwy 73 to junction Wisconsin Hwy 44, east of Manchester, WI, and thence over Wisconsin Hwy 44 to Markesan), and return over the same route. Between Minnesota Jct., Wisconsin, on the one hand, and, on the other, Port Washington, WI: From Minnesota Jct. over Wisconsin Hwy 33 to Port Washington, and return over the same route. Between Oconomowoc, WI, on the one hand, and, on the other, Horicon, WI, with service at Horicon for the purpose of joinder only: From Oconomowoc over Wisconsin Hwy 67 via Iron Ridge, WI, to Mayville, WI, thence over Wisconsin Hwy 28 to Horicon, and return over the same route. Between junction Wisconsin Hwys 33 and 73, on the one hand, and, on the other, Portage, WI, with service at junction Wisconsin Hwys 33 and 73 for the purpose of joinder only: From junction Wisconsin Hwys 33 and 73 over Wisconsin Hwy 33 to Portage, and return over the same route. Between junction Wisconsin Hwys 33 and 44, on the one hand, and, on the other, Wyocena, with service at junction Wisconsin Hwys 33 and 44 for the purpose of joinder only: From junction Wisconsin Hwys 33 and 44 over Wisconsin Hwy 44 to Wyocena, and return over the same route. Between junction Wisconsin Hwy 44 and County Hwy P, northeast of Pardeeville, WI, on the one hand, and, on the other, junction Wisconsin Hwys 33 and 73 north of Randolph, WI, with service at the termini for the purpose of joinder only: From junction Wisconsin Hwy 44 and County Hwy P over County Hwy P to Randolph, thence over Wisconsin Hwy 73 to junction Wisconsin Hwy 33, and return over the same route. Between junction Wisconsin Hwys 33 and 146, on the one hand, and, on the other, Cambria, with service at the termini for the purpose of joinder only: From junction Wisconsin Hwys 33 and 146 over Wisconsin Hwy 146 to Cambria, and return over the same route. Alternate route for operating convenience only: Between Juneau, Wisconsin, on the one hand, on the other, Hartford, WI, with service at Hartford for the purpose of joinder only: From Juneau over Wisconsin Hwy 115 to junction Wisconsin Hwys 115, 67, and 60, north of Neosho, WI, thence over Wisconsin Hwy 60 to Hartford, and return over the same route. Between Beloit, WI and Rockford, IL, serving no intermediate points: From Beloit over U.S. Highway 51 to Rockford, and return over the same route. From Beloit over Interstate Hwy 90 to junction U.S. Hwy 20, and thence over U.S. Hwy 20 (also over U.S. Hwy 20 BR) to Rockford, and return over the same route, for 180 days. Restriction: The authority granted above is restricted to the transportation of shipments received from or delivered to connecting carriers at Rockford, IL. An underlying ETA seeks 90 days authority. Supporting shipper: There are 17 supporting shippers. Send protests to: John E. Ryden, DS, ICC, 17 E. Wisconsin Avenue, Room 619, Milwaukee, WI 53202.

MC 52579 (Sub-198TA), filed November 29, 1979. Applicant: GILBERT CARRIER CORP., One Gilbert Drive, Secaucus, NJ 07094. Representative: Julius Saltzman, One Gilbert Drive, Secaucus, NJ 07094. Wearing apparel on hangers and in cartons between Murray, KY and New York, NY for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Cacharel, 16 West 56th Street, New York, NY 10019. Send protests to: Robert E. Johnston, DS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 52579 (Sub-199TA), filed November 15, 1979. Applicant: GILBERT CARRIER CORP., One Gilbert Drive, Secaucus, NJ 07094. Representative: Lawrence Burstein, Esq., One World Trade Center, Suite 2373, New York, NY 10048. Such merchandise as is dealt in by retail department stores from New York, NY commercial zone to the facilities of Rich's Inc., a division of Federated Stores, Inc., located at Stone Mountain, GA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Rich's, A Division of Federated Stores, Inc., P.O. Box 4539, Atlanta, GA 30302. Send protests to: Robert E. Johnston, DS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 52709 (Sub-379TA), filed November 9, 1979. Applicant: RINGSBY TRUCK LINES, INC., P.O. Box 7240, 3980 Quebec St., Denver, CO 80207. Representative: Rick Barker, same address as applicant. *Explosives, classes A and B, and materials, equipment and supplies for the distribution and use of explosives* from Sweetgrass, MT to all points in and West of MN, MO, AR and LA for 180 days. ETA filed seeking 90 days authority. Supporting shipper(s): Explosives Sales Corp, 410 17th St. Suite 450, Denver, CO 80202. Send protests to: R. Buchanan, 492 U.S. Customs House, Denver, CO 80202.

MC 64808 (Sub-43TA), filed December 7, 1979. Applicant: W. S. THOMAS TRANSFER, INC., 1854 Morgantown Ave., Fairmont, WV 26554. Representative: Henry M. Wick, Jr., 2310 Grant Building, Pittsburgh, PA 15219. *Cullet,* from the facilities of AFG Industries, Inc., at Kingsport and Greenland, TN, to the facilities of AFG Industries, Inc., at Clarksburg and Jerry's Run at or near Flemington, Taylor County, WV, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: AFG Industries, Inc., P.O. Box 929, Kingsport, TN 37662. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 65429 (Sub-9TA) filed November 30, 1979. Applicant: J & T TRANSPORT, INC., 7990 National Highway, Pennsauken, NJ 08110. Representative: Joseph T. Bambrick, Jr., Esq., P.O. Box 216, Douglassville, PA 19518. *Engraved or etched rolls or rollers excluding rolling machines.* To, from and between Norwich, CT, points in NJ, and those points in PA on and east of the Susquehanna River, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Roto Cylinders, Inc., 701 Public Road, Palmyra, NJ 08065. Send protests to: District Supervisor, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 72069 (Sub-27TA) filed November 8, 1979. Applicant: BLUE HEN LINES, INC., P.O. Box 280, Milford, DE 19963. Representative: Chester A. Zyblut, 1030–15th St. NW., Suite 366, Washington, DC 20005. *Canned goods,* from Vineland, NJ to points in LA, FL, GA, AL, NC and SC for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Progresso Quality Foods, Vineland, NJ 08360. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 78228 (Sub-153TA) filed November 14, 1979. Applicant: J MILLER EXPRESS, INC., 962 Greentree Rd., Pittsburgh, PA 15220. Representative: Henry M. Wick, Jr., Esq., 2310 Grant Bldg., Pittsburgh, PA 15219. *Activated carbon,* in bulk, in dump vehicles, from Pryor, OK to Davenport, IA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): The Carborundum Company, P.O. Box 337, Niagara Falls, NY 14302. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Philadelphia, PA 19106.

MC 88368 (Sub-42TA) filed November 15, 1979. Applicant: CARTWRIGHT VAN LINES, INC., 11901 Cartwright Ave., Grandview, MO 64030. Representative: C. Max Stewart, same as applicant. *Bar, kitchen and food service furniture, fixtures, furnishings, equipment and supplies (except foodstuffs), and accessories, materials and parts thereto.* From Bellwood, IL, Peru, IN, Kansas City and St. Louis, MO, Cleves, Dayton, Eaton, and Miamisburg, OH, Hudson and Oshkosh, WI to points in AZ, CA, FL, IA, IN, KS, MN, MO, NM, ND, OH, TN, TX, WV and WI. 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): General Fixtures Co., 22 Mead St., Dayton, OH 45402. Send protests to: Vernon Coble D/S, 600 Fed. Bldg., 911 Walnut St., Kansas City, MO 64106.

MC 106398 (Sub-1031TA), filed November 13, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). *Iron or steel forms, 3/16' thick or thicker,* from the facilities of Southern Fabricators, Inc., located at Memphis, TN, to points in AL, FL, and IL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Southern Fabricators, Inc., 4768 Hungerford Rd., Memphis, TN 38118. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1032TA), filed November 13, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). *Fabricated structural steel, steel pipe, pipe fittings and fabricated pipe, paper pulp and sawmill machinery and parts,* from the facilities of Arkansas Oregon Pneumatics, located at Crossett, AR, to the states of GA, LA, MN, MS, NC, VA, and WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Arkansas-Oregon Pneumatics, Inc., P.O. Box 578, 800 Wood Street, Crossett, AR 71635. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1033TA), filed November 14, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). *Insulation,* from the facilities of Celotex Corporation, located at Elizabethtown, KY, to Baltimore, MD, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): The Celotex Corporation, A Subsidiary of Jim Walter Corp., P.O. Box 22601, Tampa, FL 33622. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1034TA), filed November 14, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). *Fabricated steel parts,* from the facilities of Production Products, Inc., located at Connersville, IN, to points in AR, KY, IA, IL, MI, OH, NV, NC, TN, and WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Production Products, Inc., 2230 Ohio Avenue, Connersville, IN 47331. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1035TA), filed November 19, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). *General commodities,* in containers, (except those of unusual value, classes A and B explosives), from the Port of Seattle, WA, to points in UT, NY, NJ, IL, MA, PA, LA, MT, CA, and TX, restricted to shipments for the account of B. R. Anderson & Company, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): B. R. Anderson & Co., 1000 Second Avenue, Seattle, WA 98104. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1036TA), filed November 19, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). (1) *ferrous and non-ferrous metals,* from the facilities of Tabor Metals at Russellville, AR, to points in AZ, CA, WA, MO, IL, IN, OH, KY, MA, and CT; and (2) *materials and supplies used in the manufacture, distribution and transportation of the commodities listed in (1) above,* from points in AZ, CA, WA, MO, IL, IN, OH, KY, MA, and CT, to the facilities of Tabor Metals, located at Russellville, AR, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Tabor Metals, (Tand Industries, Inc.), 2525 Arthur Avenue, Elk Grove Village, IL 60007. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1037TA), filed November 28, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson, (same address as applicant). *Lumber and wood products,* from all points in AZ, NM, and UT, to all points in AZ, UT, CO, NM, WY, MT, NE; and from Fredonia, AZ and Panguitch and Escalante, UT, to points in OK, TX, AR, MO, IA, IL, IN, OH, MI, MN, KY, and TN, restricted to

shipments for the account of Southwestern Sales, Inc., for 180 days. Supporting shipper(s): Southwestern Sales, Inc., P.O. Box 25783, Albuquerque, NM 87125. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1038TA), filed November 28, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson (same address as applicant). *Aluminum, aluminum articles and accessories,* from the facilities of Kaiser Aluminum and Chemicals Corporation at Elkhart County, IN, to points in AL, FL, GA, IL, KY, MA, MI, MD, NJ, NY, OH, PA, NC, SC, and TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Kaiser Aluminum and Chemical Corp., 9700 Harlem Ave., Bridgeview, IL 60455. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W., 3rd, Oklahoma City, OK 73102.

MC 106398 (Sub-1039TA), filed November 28, 1979. Applicant: NATIONAL TRAILER CONVOY, INC., 705 South Elgin, Tulsa, OK 74120. Representative: Gayle Gibson, (same address as applicant). (1) *Concrete barriers, precast forms, wooden and metal forms,* from points in the state of NY, to points within the states of CT, MA, NJ, PA, VT, & NH; and (2) *materials, and supplies used in the manufacture and distribution of the commodities listed in (1) above,* from points within the states of CT, MA, NH, PA, VT, & NJ, to points within the state of NY, Restricted to shipments for the account of I. & O.A. Slutzky, Inc., for 180 days. Supporting shipper(s): I. & O. A. Slutzky, Inc., Route 296, Hunter, NY 12442. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W., 3rd, Oklahoma City, OK 73102.

MC 108589 (Sub-24TA), filed November 5, 1979. Applicant: EAGLE EXPRESS CO., 11425 Williamson Rd., Cincinnati, OH 45241. Representative: Michael Spurlock, 275 E. State St., Columbus, OH 43215. *General commodities* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), serving Monticello, KY as an intermediate point in connection with applicant's regular route between Burnside, KY and Albany, KY over KY Highway 90 and KY Highway 350 and return over the same route, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Monticello Mfg., Inc., P.O. Box 436, Monticello, KY 42633; Union Camp Corp, Hwy 25E, Morristown, IN; Larand, Inc., Airport Rd., Monticello, KY 42633. Send protests to: ICC, 101 N. 7 Sts., Phildadelphia, PA 19106.

MC 108589 (Sub-25TA), filed November 15, 1979. Applicant: EAGLE EXPRESS COMPANY, 11425 Williamson Road, Cincinnati, OH 45241. Representative: Michael Spurlock, 275 East State Street, Columbus, OH 43215. Common carrier, regular route: *General commodities,* (except those of unusual value, Classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), between Cincinnati, OH, and its commercial zone and Louisville, KY and its commercial zone, serving no intermediate points; from Cincinnati, OH over Interstate Hwy 7 to Louisville, KY and return over the same route, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): There are 12 statements in support attached this application which may be examined at the office listed below and Headquarters. Send protests to: ICC, Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 108859 (Sub-79TA), filed November 13, 1979. Applicant: CLAIRMONT TRANSFER CO., 1803 Seventh Avenue, North, Escanaba, MI 49829. Representative: Elmer J. Wery, P.O. Box 3548, Green Bay, WI 54303. *Paper and paper products,* serving the facilities of Container Corporation of America at or near Louisville, KY to Mt. Vernon (Posey County), IN and points in its commercial zone, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Container Corporation of America, 12200 Westport Road, Louisville, KY 40222. Send protests to: C. R. Flemming, D/S, ICC, Room 201 Corr Building, 300 E. Michigan, Lansing, 48933.

MC 109478 (Sub-156TA), filed November 7, 1979. Applicant: WORSTER MOTOR LINES, INC., P.O. Box 110, Gay Rd., Northeast, PA 16428. Representative: Robert D. Gunderman, Esq., 710 Statler Bldg., Buffalo, NY 14202. *Frozen foods (except in bulk),* from South Bend, IN and Benton Harbor, MI to points in IA, KS, and MO, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Pet, Inc., Frozen Foods Division, 400 S. 4 St., St. Louis, MO 63102. Send protests to: I.C.C., 101 N. 7 St., Philadelphia, PA 19106.

MC 109538 (Sub-37TA), filed November 14, 1979. Applicant: CHIPPEWA MOTOR FREIGHT, INC., 1000 E. 41st Street, P.O. Box 850, Sioux Falls, SD 57101. Representative: Dennis Riswold (same address as applicant). *General commodities, (except those of unusual value, Class A explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment),* (1) Between Ft. Wayne, IN, and Hartford City, IN; from Ft. Wayne over IN Hwy 1 to Fiat, IN, then over IN Hwy 18 to junction IN Hwy 3, then over IN Hwy 3 to Hartford City, IN and return over the same route; and (2) Between Ft. Wayne, IN and Peru, IN, with service at Peru for joinder purposes only; from Ft. Wayne over U.S. Hwy 24 to Peru and return over the same route for 180 days. Supporting shipper(s): There are 64 statements attached in support which may be examined at the Interstate Commerce Commission in Washington, D.C. or copies examined in the field office named below. Send protests to: J. L. Hammond, DS, ICC, Room 322, Federal Bldg., Pierre, SD 57501.

Note.—Applicant proposes to Tack the authority sought here at Points of Chicago and Rock Island, IL, Cincinnati, OH; St. Paul, MN; Fargo, ND; Sioux Falls, SD; Des Moines, IA; Indianapolis, IN with its existing operating authority.

## Notice No. 247

December 19, 1979.

MC 110659 (Sub-30TA), filed October 15, 1979. Applicant: COMMERCIAL CARRIERS, INC., 975 Virginia St., W., Charleston, WV 25302. Representative: John M. Friedman, 2930 Putnam Ave., Hurricane, WV 25526. *Glass containers and accessories* from Huntington, WV to Detroit, MI, for 180 days. Supporting shipper(s): Owens-Illinois, Inc., P.O. Box 1035, Toledo, OH 43666. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 111289 (Sub-15TA), filed October 23, 1979. Applicant: RICHARD D. FOLTZ, P.O. Box 161, Orwigsburg, PA 17961. Representative: S. Berne Smith, Esq., P.O. Box 1166, 100 Pine St., Harrisburg, PA 17108. *Contract carrier:* Irregular routes: *Such merchandise as is dealt in by wholesale, retail, and chain grocery food houses,* from the facilities of Dauphin Distribution Services, Co. in Hampden Township, Cumberland County, and at or near Camp Hill, PA, to Baltimore, MD, Washington, DC, points in New Castle County, DE, those in Montgomery and Howard Counties, MD, on and east of MD Hwy 97, those in Anne Arundel and Prince Counties, MD, on, west, and north of MD Hwys 3 and 4, those in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Monmouth, Ocean, and Salem Counties, NJ, and those in NY on and west of Interstate Hwy 87, under contract with Nabisco, Inc. of East

Hanover, NJ, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Nabisco, Inc., E. Hanover, NJ 07936; Dauphin Distribution Services, Co., 5023 E. Trindle Rd., Mechanicsburg, PA 17055. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 112989 (Sub-117TA), filed November 13, 1979. Applicant: WEST COAST TRUCK LINES, INC., 85647 Highway 99 South, Eugene, OR 97405. Representative: John W. White, Jr., 85647 Highway 99 South, Eugene, OR 97405. *Clay, ground crude or other than crude* (except in bulk) from the facilities of Oil-Dri Corp of America at or near Christmas Valley, OR to points in WA, OR, CA, NV, ID, MT, UT, CO, WY, AZ, NM, and TX for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Oil-Dri Corporation of America, 520 N. Michigan Avenue, Chicago, IL 60611. Send protests to: A. E. Odoms, DS, ICC, 114 Pioneer Courthouse, 555 S.W. Yamhill Street, Portland, Oregon 97204.

MC 113089 (Sub-14TA), filed November 5, 1979. Applicant: ED GALIGHER, P.O. Box 163, Bowerston, OH 44695. Representative: Richard H. Brandon, P.O. Box 97, 220 West Bridge St., Dublin, OH 43017. *Contract carrier,* irregular routes, *Clay products,* from Bowerston, OH to Waukesha, WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): The Bowerston Shale Company, 515 Main Street, Bowerston, OH 44695. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 113158 (Sub-44TA), filed November 7, 1979. Applicant: TODD TRANSPORT CO., INC., Box 158, Secretary, MD 21664. Representative: James W. Patterson, Esq., 1200 Western Savings Bank Bldg., Philadelphia, PA 19107. *Foodstuffs* (except in bulk) from Parkesburg, PA and Fruitland, MD, to points in VA, NC, SC, GA, and FL, restricted to traffic originating at the named origins and destined to the named destination states, for 180 days. Supporting shippers(s): Green Giant Co., Le Sueur, MN 56058. Send protests to: I.C.C., 101 N. 7 St., Philadelphia, PA 19106.

MC 113658 (Sub-22TA), filed November 7, 1979. Applicant: SCOTT TRUCK LINE, INC., 5280 Newport St., Commerce City, CO. Representative: Richard J. Loose (same address as applicant). *Margarine, shortening, peanut butter and promotional materials,* from facilities of Sunnyland Refining Co. at or near Birmingham, AL to points in CO, CT, IA, IL, IN, KS, MA, MO, NE, NJ, NY, OH, PA and RI for 180 days. Supporting shippers(s): Sunnyland Refining Company, Inc., 3330 10th Ave. N., Birmingham, AL 35234. Send protests to: R. Buchanan, 492 U.S. Customs House, Denver, CO 80202.

MC 113678 (Sub-854TA), filed November 9, 1979. Applicant: CURTIS, INC., 4810 Pontiac Street, Commerce City, CO 80022. Representative: Roger M. Shaner (same address as above). *Malt beverages,* from Philadelphia, PA to Denver, CO, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): Rocky Mountain High Unlimited, 5758 Lamar Street, Arvada, CO. Send protests to: H. Ruoff, 492 U.S. Customs House, Denver, CO 80202.

MC 113678 (Sub-855TA), filed November 9, 1979. Applicant: CURTIS, INC., 4810 Pontiac Street, Commerce City, CO. Representative: Roger M. Shaner (same address as above). *Foodstuffs,* (1) from the facilities of Seneca Foods Corp., at or near Prosser, WA, to points in CA, and (2) from Connell and Othello, WA, to Santa Fe Springs, CA, for 180 days. Supporting shippers(s): Seneca Foods Corporation, P.O. Box 71, Prosser, WA 99350. Send protests to: H. Ruoff, 492 U.S. Customs House, Denver, CO 80202.

MC 113678 (Sub-856TA), filed November 29, 1979. Applicant: CURTIS, INC., 4810 Pontiac Street, Commerce City, CO 80022. Representative: Roger M. Shaner, (same address as above). *Chemicals and chemical compounds* (except commodities in bulk) from points in CA and OR to Salt Lake City, UT (see attachment A for representative points) for 180 days. Supporting shipper(s): Van Waters & Rogers Chemical Co., 4300 Holly Street, Denver, CO. Send protests to: H. Ruoff, 492 U. S. Customs House, Denver, Colorado 80202.

MC 113908 (Sub-487TA), filed November 29, 1979. Applicant: ERICKSON TRANSPORT CORP., 2255 N. Packer Road, P.O. Box 10068 G.S., Springfield, MO 65804. Representative: Jim G. Erickson, (same as above). *Lecithin,* in bulk, from Helena, AR, and the commercial zone thereof, to Chicago, IL and its commercial zone, and New Albany, IN for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): P. G. Consultants, Inc., P.O. Box 903, Arlington Heights, IL 60006. Send protests to: Vernon V. Coble, DS, I.C.C. Room 600 Fed. Bldg., 911 Walnut St., Kansas City, MO 64106.

MC 114569 (Sub-354TA), filed November 2, 1979. Applicant: SHAFFER TRUCKING, INC., P.O. Box 418, New Kingstown, PA 17072. Representative: N. L. Cummins, (same as applicant). *Confectionery and confectionery products,* from Montrose, CO to Los Angeles and Sacramento, CA; Portland, OR and Seattle, WA and their commercial zones, for 180 days. Supporting shipper(s): Russell Stover Candies, Inc., 1004 Baltimore Avenue, Kansas City, MO 64105. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 114969 (Sub-91TA), filed September 19, 1979. Applicant: PROPANE TRANSPORT, INC., 1734 State Route 131, P.O. Box 232, Milford, OH 45150. Representative: James R. Stiverson, 1396 W. Fifth Ave., Columbus, OH 43212. *Liquid fertilizer and fertilizer ingredients, liquid feed and feed ingredients,* from Adrian, MI to pts. in IN, OH and IL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Michigan Mineral Materials, P.O. Box 868, 1510 E. Maumee St., Adrian, MI 49221. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 114969 (Sub-92TA), filed October 1, 1979. Applicant: PROPANE TRANSPORT, INC., 1734 State Route 131, P.O. Box 232, Milford, OH 45150. Representative: James R. Stiverson, 1396 W. Fifth Ave., Columbus, OH 43212. *Liquefied petroleum gas,* (1) from Blue Island, IL to pts. in IN, and (2) from Painesville, OH to pts. in NY, PA, and WV, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): 1. Getty Refining and Marketing Co., P.O. Box 1650, Tulsa, OK 74102; 2. Petrolane Inc., Rt. 64 W. P.O. Box 410, St. Charles, IL 60174; 3. Commonwealth Propane Co., 1008 Tri-State Bldg., Cincinnati, OH 45202; 4. Pyrofax Gas Corp., P.O. Box 2521, Houston, TX 77001. Send protests to: I.C.C. Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 114989 (Sub-24TA), filed November 5, 1979. Applicant: KENTUCKY WESTERN TRUCK LINES, INC., P.O. Box 623, Hopkinsville, KY 42240. Representative: Richard D. Gleaves, Atty., 631 Stahlman Bldg., Nashville, TN 37201. *Contract;* Irregular, *milk cartons,* in truckload lots, maximum weight 44,000 lbs per load, from Sikeston, MO, to Ardmore, OK, including the commercial zones of each under a continuing contract with Colvert Dairy Products Co., Ardmore, OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Raymond Colvert, President, Colvert Dairy Products Company, P.O. Box 158, Ardmore, OK 73401. Send protests to: (Ms.) Clara L. Eyl, T/A, ICC, 426 Post Office Bldg., Louisville, Ky. 40202.

MC 115648 (Sub-35TA), filed November 14, 1979. Applicant: LOCK TRUCKING, INC., P.O. Box 278, Wheatland, WY 82201. Representative: Ward A. White, P.O. Box 568, Cheyenne, WY 82001. *Limestone, in bulk,* from points in Larimer County, CO to points in Albany, Carbon, Goshen and Platte Counties, WY, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Holly Sugar Corp., P.O. Box 1952, Colorado Springs, CO 80901. Send protests to: District Supervisor Paul A. Naughton, Interstate Commerce Commission, Rm. 105 Federal Bldg. & Crt. House, 111 South Wolcott, Casper, WY 82601.

MC 117119 (Sub-790TA), filed November 19, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: L. M. McLean (same address as applicant). *Chemicals* (except in bulk in tank vehicles) including but not limited to acids, NOS, Chemicals, NOS, Synthetic Latex, Synthetic Plastics, Cleaning Compounds, Chelating Compounds, and Battery Insulating Partitions, from (1) Waterloo, NY, Nashua, NH, and Owensboro, KY to points in CA, ID, NV, OR UT, WA and WY, and (b) from Acton and Cambridge, MA to points in OR and WA, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): W. R. Grace & Co., Organic Chemical Division, 55 Hayden Ave., Lexington, MA 02173. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-791TA), filed November 28, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: L. M. McLean (same address as applicant). *Chemicals* (except in bulk) from Murray, KY to points in CA, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): R. T. Vanderbilt Co., Inc., 30 Winfield St., Norwalk, CT 06855. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-792TA), filed November 29, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: Martin M. Geffon, P.O. Box 156, Mt. Laurel, NJ 08054. (1) *Foodstuffs* (except in bulk), (2) *pet foods* (except in bulk), and (3) *materials, supplies, and equipment* used in the manufacture, distribution and sale of the items in (1) and (2) above between points in the U.S., restricted to the transportation of traffic moving for the account of Campbell Soup Company and its subsidiaries, for 180 days. Supporting shipper(s): Campbell Soup Company, Campbell Place, Camden, NJ 08101. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-793TA), filed November 8, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: Martin M. Geffon, P.O. Box 156, Mt. Laurel, NJ 08054. *Chemicals* (except in bulb) from Moss Point, MS to Indianapolis, IN, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Thiokol Corporation, 930 Lower Ferry Rd., Trenton, NJ 08650. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-794TA), filed November 13, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: L. M. McLean (same address as applicant). *Fresh and frozen meat* (except in bulk) from the facilities of Peppertree Beef Co. at Denver, CO to points in ME and NH, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Peppertree Beef Company, P.O. Box 16331, Stockyards Station, Denver, CO 80261. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-795TA), filed November 13, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: L. M. McLean (same address as applicant). *Pulpboard, fibreboard, and boxes* (except in bulk) from the facilities used by Container Corp. of America, in Kent, Renton, and Tacoma, WA to Ontario, OR; Caldwell, Boise, Burley, Heyburn, and Twin Falls, ID and Richmond, UT, restricted to traffic originating at and destined to the named points, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Container Corp. of America, 2800 DeLa Cruz Blvd., Santa Clara, CA 95050. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-796TA), filed November 16, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: L. M. McLean (same address as applicant). *Pulpboard, fibreboard, and boxes* (except commodities in bulk), from the facilities used by Container Corp. of America, at or near Los Angeles, CA and Santa Clara, CA to Caldwell, Boise, Twin Falls, Burley, and Heyburn, ID, restricted to traffic originating at and destined to the named points, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Container Corporation of America, 2800 DeLa Cruz Blvd., Santa Clara, CA 95050. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117119 (Sub-797TA), filed November 19, 1979. Applicant: WILLIS SHAW FROZEN EXPRESS, INC., P.O. Box 188, Elm Springs, AR 72728. Representative: L. M. McLean (same address as applicant). *Chemicals, plastics and other commodities* manufactured or sold by manufacturers of chemicals and plastics, in packages from the facilities of or used by Dow Chemical U.S.A. at or near Baton Rouge and Port Allen, LA to points in CA, CO, ID, IL, IN, IA, KY, MI, MN, MO, MT, NV, OH, OR, UT, WA, WI, and WY, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Dow Chemical, U.S.A., P.O. Box 150—Bldg. 3302, Plaquemine, LA 70764. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 117589 (Sub-69TA), filed November 7, 1979. Applicant: PROVISIONERS FROZEN EXPRESS, INC., 3801 7th Ave., South, Seattle, WA 98108. Representative: Michael D. Duppenthaler, 211 South Washington St., Seatle, WA 98104. *Meat, meat products and meat by-products and articles distributed by meat packinghouses, as described in Appendix I to the report in Descriptions in Motor Carrier Certificates, 61 MCC 209 and 766,* from Grand Island, NE to points in ID, MT, OR, UT and WA, for 180 days. Supporting shipper(s): Boxed Meats of America, Inc., 620 South Andover Street, Seattle, WA 98108. Send protests to: Shirley M. Holmes, T/A ICC, 858 Federal Building, Seattle, WA 98174.

MC 118089 (Sub-37TA), filed November 13, 1979. Applicant: ROBERT HEATH TRUCKING, INC., 2909 Avenue C, P.O. Box 2501, Lubbock, TX 79408. Representative: Charles M. Williams, Kimball, Williams & Wolfe, P.C., 350 Capitol Life Center, 1600 Sherman St., Denver, CO 80203. *Hides* from points in ID, WA, CA, UT, and Phoenix, AZ and Clovis, NM and points in their repective commercial zones to Phoenix, AZ; Clovis, NM; Houston and Laredo, TX: and points in their respective commercial zones, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): Southwest Hide Company Hide Company, P.O. Box 7553, Boise, ID 83707. Send protests to: Marianne Minnich, TCS, ICC, Rm. 9A27

Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 118159 (Sub-367TA), filed November 19, 1979. Applicant: NATIONAL REFIRGERATED TRANSPORT, INC., P.O. Box 51366, Dawson Station, Tulsa, OK 74151. Representative: Neil A. DuJardin, P.O. Box 2298, Green Bay, WI 54306. *Paint and sundry products,* from Somerset, MA, to points in TN, MS, AL, GA, FL, NC, SC, and VA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s):Parks Coproration, 1 Main Street, Box 5, Somerset, MA 02726. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 118178 (Sub-28TA), filed November 19, 1979. Applicant: BILL MEEKER, 1632 No. Mosley, Wichita, KS 67214, Representative: Bill Meeker (same as above). *Packinghouse products, meat by-products and articles distributed by packinghouses* as described in Sec. A&C of Appendix I to the Report in Descriptions in M.C.C. 61 MCC 209 and 766, except hides and commodities in bulk; from Dodge City, KS to MO, OK, and TX; for 180 days, common, irregular. An underlying ETA seeks 90 days authority. Supporting shipper: Hy Plains Dressed Beef, Inc., Dodge City, KS; Send protests to: M. E. Taylor, DS, ICC, 101 Litwin Bldg., Wichita, KS 67202.

MC 118318 (Sub-45TA), filed November 29, 1979. Applicant: IDA-CAL FREIGHT LINES, INC., P.O. Drawer M, Nampa, ID 83651. Representative: Timothy R. Stivers, P.O. Box 162, Boise, ID 83701. *Such commodities as are dealt in by grocery and food business houses,* from points in CA to points in ID on and south of the southern boundaries of Ada s, Lemhi and Valley Counties, ID and points in Box Elder, Cache, Davis, Morgan, Salt Lake, Tooele, Utah and Weber Counties, UT, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): International Paper Company, P.O. Box 3448, Portland, OR 97208. Send protests to: Barney L. Hardin, D/S, ICC Suite 110, 1471 Shoreline Dr., Boise, ID 83702.

MC 118989 (Sub-232TA), filed November 1, 1979. Applicant: CONTAINER TRANSIT, INC., 5223 S. 9th St., Milwaukee, WI 53221. Representative: Rolland Draves (same address as applicant). *Aluminum or steel container and component parts thereof,* from facilities of American Can Co. at San Antonio, TX to Madisonville, KY, for 180 days. An underlying ETA seeks 90 days autority. Supporting shipper(s): American Can Co., 915 Harger Rd., Oak Brook, IL 60521. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 118989 (Sub-233TA), filed November 13, 1979. Applicant: CONTAINER TRANSIT, INC., 5223 S. 9th St., Milwaukee, WI 53221. Representative: Rolland K. Draves (same address as applicant). *Aluminum or steel container and component parts thereof,* from San Antonio, TX to St. Louis, MO, for 180 days. An underlying ETA seeks 90 days autority. Supporting shipper(s): American Can Co., 915 Harger Rd., Oak Brook, IL 60521. Send protests to: John E. Ryden, DS, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 119399 (Sub-118TA), filed November 13, 1979. Applicant: CONTRACT FREIGHTERS, INC., 2900 Davis Blvd., Joplin, MO 64801. Representative: Thomas P. O'Hara (same as applicant). *Furniture parts, materials, and supplies,* from the facilities of Leggett & Platt, Incorporated, Carthage, MO to points in CO, IA, IL and MN, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Leggett & Platt, Incorporated, P.O. Box 757, Carthage, MO 64836. Send protests to: Vernon Coble D/S, 600 Fed. Bldg., 911 Walnut St., Kansas City, MO 64106.

MC 119399 (Sub-119TA), filed November 14, 1979. Applicant: CONTRACT FREIGHTERS, INC., 2900 Davis Blvd., Joplin, MO 64801. Representative: Don D. Lacy (same as applicant). *Flat glass, uncrated, and crated flat glass when moving in mixed shipments with uncrated flat glass,* from the facilities of PPG Industries, Inc. at or near Crystal City, MO., Cumberland, MD., Kebert Park and Mt. Holly, PA., Mt. Zion, IL., and Wichita Falls, TX to points in the United States (except AK and HI), for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): PPG Industries, Inc., One Gateway Center—17 East, Pittsburgh, PA 15222. Send protests to: Vernon Coble D/S, 600 Fed. Bldg., 911 Walnut St., Kansas City, MO 64106.

MC 119689 (Sub-26TA), filed November 5, 1979. Applicant: PEERLESS TRANSPORT CORP., 2701 Railroad St., Pittsburgh, PA 15222. Representative: Robert T. Hefferin (address same as applicant). *Chemicals,* other than in bulk, (1) between Chester, PA, on the one hand, and on the other, points in IL, IN, KY, MI, MN, MO, OH, WV and WI and (2) between Lasalle, IL and Anderson, IN, on the one hand, and on the other, points in PA, for 180 days. Supporting shipper(s): PQ Corporation, Valley Forge Executive Mall, P.O. Box 840, Valley Forge, PA 19482. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 119789 (Sub-649TA), filed November 28, 1979. Applicant: CARAVAN REFRIGERATED CARGO, INC., P.O. Box 226188, Dallas, TX 75266. Representative: James K. Newbold, Jr., address same as above. *Malt beverages,* from Laredo and San Antonio, TX to Atlanta, GA for 180 days. Underlying ETA for 90 days filed. Supporting shipper(s): All State Beer, Inc., 2060 Defoor Hills Road, NW, Atlanta, GA. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 119789 (Sub-650TA), filed November 29, 1979. Applicant: CARAVAN REFRIGERATED CARGO, INC., P.O. Box 226188, Dallas, TX 75266. Representative: James K. Newbold, Jr., address same as above. *Non-frozen foodstuffs* from Suffield, CT and Northboro and North Billerica, MA to points in AZ, CA, CO, KS, LA, MO, NM, OK, and TX for 180 days. Underlying ETA for 90 days filed. Supporting shipper(s): Wilco Trading Company, P.O. Box 804, Lakewood, NJ 08701. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 119789 (Sub-651TA), filed November 19, 1979. Applicant: CARAVAN REFRIGERATED CARGO, INC., P.O. Box 226188, Dallas, Texas 75266. Representative: James K. Newbold, Jr., same address as carrier. *Such merchandise as is dealt in by wholesale and retail gift item stores (except foodstuffs, furniture and precious jewelry)* between Addison, Texas and points in the United States (except Alaska and Hawaii). Restricted to the transportation of shipments originating at or destined to the facilities of Tuesday Morning, Inc. at Addison, Texas, for 180 days. Underlying ETA for 90 days has been filed. Supporting shipper(s): Tuesday Morning, Inc., 14621 Inwood Road, Dallas, TX 75234. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 119789 (Sub-652TA), filed November 14, 1979. Applicant: CARAVAN REFRIGERATED CARGO, INC., P.O. Box 226188, Dallas, Texas 75266. Representative: James K. Newbold, Jr., same address as carrier. *Cooking oil, in containers* from Opelousas, LA to Worcester, MA for 180 days. Underlying ETA for 90 days has been filed. Supporting shipper(s): Louana Foods, Inc., P.O. Box 591, Opelousas, LA 70570. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal

Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 119988 (Sub-229TA), filed November 27, 1979. Applicant: GREAT WESTERN TRUCKING CO., INC., P.O. Box 1384, Lufkin, TX 75901. Representative: Hugh T. Matthews, 2340 Fidelity Union Tower, Dallas, TX 75201. *(1) Plumbing fixtures and plumbing supplies, and (2) materials, equipment, and supplies* used in the manufacture and distribution of the commodities in (1) above between the facilities of Kohler Company at or near Spartanburg, SC, on the one hand, and on the other, points in MI, WI, OH, IN, IL, MO, AR, KS, OK, TX, LA, and IA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Kohler Company, P.O. Box A, Kohler, WI 53044. Send protests to: John F. Mensing, DS, I.C.C., 515 Rusk Ave., No. 8610, Houston, TX 77002.

MC 119988 (Sub-230TA), filed November 14, 1979. Applicant: GREAT WESTERN TRUCKING CO., INC., P.O. Box 1384, Lufkin, TX 75901. Representative: Hugh T. Matthews, 2340 Fidelity Union Tower, Dallas, TX 75201. *Power equipment and parts thereof,* from the facilities of McCulloch Corp. at Lake Havasu City, AZ to Columbus, OH; Southfield, MI; Elmhurst, IL; St. Louis, MO; Kansas City, MO; St. Paul, MN; Plover, WI; Charleston, WV; Shelby, NC; Decatur, GA; Marshall, TX; Baton Rouge, LA; Memphis, TN; Pensacola, FL, and Birmingham, AL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): McCulloch Corp., 900 Lake Havasu Ave., Lake Havasu City, AZ. Send protests to: John F. Mensing, DS, ICC, 515 Rusk Ave., No. 8610, Houston, TX 77002.

MC 123189 (Sub-2TA), filed November 13, 1979. Applicant: FRANKLIN EXPRESS, INCORPORATED, U.S. 31 W North, Franklin, KY 42134. Representative: Roland M. Lowell, 618 United American Bank Bldg., Nashville, TN 37219. General Commodities (with the usual 'exceptions') between points in Simpson County, KY, on the one hand, and, on the other, Bowling Green, KY, and its commercial zone. Restricted to traffic having a prior or subsequent movement by rail for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): J. V. Garrison, Gen. T/M, The Kendall Co., 1 Federal St., Boston, MA 02101. Send protests to: (Ms.) Clara L. Eyl, T/A, ICC, 426 Post Office Bldg., Louisville, KY 40202.

MC 123279 (Sub-4TA), filed November 13, 1979. Applicant: CHARTER EXPRESS, INC., 595 East Tallmadge St., Akron, OH 44310. Representative: William P. Jackson, Jr., 3426 N. Washington Blvd., P.O. Box 1240, Arlington, VA 22210. *Such commodities as are used, manufactured or distributed by a manufacturer of siding,* between the facilities of Alside, Inc. at or near Northampton, Wadsworth and West Salem, OH, on the one hand, and on the other, points in PA, NY, NJ, MD, DE, CT, RI, MA and ME, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Alside, Inc., P.O. Box 2010 Akron, OH 44309. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Philadelphia, PA 19106.

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MC 124078 (Sub-1004TA), filed November 19, 1979. Applicant: SCHWERMAN TRUCKING CO., 611 S. 28 St., Milwaukee, WI 53215. Representative: Richard Prevette (same address as applicant). *Cement, in bulk and bags,* from Amarillo and Maryneal, TX to all points in CO, KS, LA, NM and OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Lone Star Industries, P.O. Box 12449, Dallas, TX 75225. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 124078 (Sub-1005TA), filed November 28, 1979. Applicant: SCHWERMAN TRUCKING CO., 611 S. 28th St., Milwaukee, WI 53215. Representative: Richard Prevette (same address as applicant). *Liquid foundry coring compound* from Muse, PA to Birmingham, AL; Atlanta, GA; Waggamann, LA; Chattanooga, TN and Fort Worth, TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): C. E. Cast Industrial Products, P.O. Box 11105, Birmingham, AL 35202. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 124078 (Sub-1006TA), filed November 29, 1979. Applicant: SCHWERMAN TRUCKING CO., 611 S. 28th St., Milwaukee, WI 53215. Representative: Richard Prevette (same address as applicant). *Fly ash,* from Mt. Pleasant and Fairfield, TX too AR, KS, LA, MN, NM, and OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): General Portland, Inc., P.O. Box 324, Dallas, TX 75221. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 124078 (Sub-1007TA), filed November 14, 1979. Applicant: SCHWERMAN TRUCKING CO., 611 South 28th St., Milwaukee, WI 53215. Representative: Richard H. Prevette (same address as applicant). *Portland cement* from Orange, TX to all points in LA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Alpha Portland Cement Company, P.O. Drawer 1148, Orange, TX 77630. Send protests to: John E. Ryden, DS, ICC, 517 E. Wisconsin Ave., Rm 619, Milwaukee, WI, 53202.

MC 124078 (Sub-1008TA), filed November 8, 1979. Applicant: SCHWERMAN TRUCKING CO., 611 S. 28 St., Milwaukee, WI 53215. Representative: Richard Prevette. (same address as applicant). *Fly ash, in bulk,* from Fairfield and Mt. Pleasant, TX to LA and MS, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Halliburton Services, Drawer 1431, Duncan, OK 73533. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 124679 (Sub-112TA), filed November 7, 1979. Applicant: C. R. ENGLAND AND SONS, INC., 975 West 2100 South, Salt Lake City, UT 84119. Representative: Daniel E. England (same address as applicant). *Edible flour compound* from the facilities of the Gorton Group, Division of General Mills, Inc. at Brook Park, OH to points in MA, for 180 days. Supporting shipper(s): The Gorton Group Division of General Mills, Inc., 327 Main Street, Gloucester, MA 01930. Send protests to: L. D. Helfer, DS, ICC, 5301 Federal Building, Salt Lake City, UT 84138.

MC 124679 (Sub-113TA), filed November 15, 1979. Applicant: C. R. ENGLAND AND SONS, INC., 975 West 2100 South, Salt Lake City, UT 84119. Representative: Robert H. Cannon (same address as applicant). *Flavorings* from the facilities of Universal Flavors at Indianapolis, IN to the facilities of Universal Flavors at Irvine, CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Universal Flavor Corporation, 5600 West Raymond Street, Indianapolis, IN 46241. Send protests to: L. D. Helfer, DS, ICC, 5501 Federal Bldg., Salt Lake City, UT 84138.

MC 124679 (Sub-114TA), filed November 15, 1979. Applicant: C. R. ENGLAND AND SONS, INC., 975 West 2100 South, Salt Lake City, UT 84119. Representative: Robert H. Cannon (same as applicant). *Lamps, lanterns, lighting fixtures, intercoms, fans and parts thereof* from points in New York State; Miami, FL, Newport, AR, and Langford, PA, to points in SD, MT, WA, OR, ID, WY, CO, UT, NV, CA, NM, and AZ, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s):

Hansen and Holt Company, 712 South 400 East, Salt Lake City, UT 84121. Send protests to: L. D. Helfer, DS, ICC, 5301 Federal Bldg., Salt Lake City, UT 84138.

MC 125368 (Sub-100TA), filed November 20, 1979. Applicant: CONTINENTAL COAST TRUCKING CO., INC., P.O. Box 26, Holly Ridge, NC 28445. Representative: C. W. Fletcher (same as above). *Flat glass, uncrated and crated flat glass when moving in mixed shipments with uncrated flat glass* from the facilities of PPG, Industries, located at or near Crystal City, MO, Kebert Park, PA, Mt. Holly Springs, PA, Mt. Zion, IL and Wichita Falls, TX to points in the U.S. except AK and HI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): PPG Industries, Inc., One Gateway Center-17 East, Pittsburgh, PA 15222. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd, Rm. CC516, Charlotte, NC 28205.

MC 125368 (Sub-101TA), filed November 20, 1979. Applicant: CONTINENTAL COAST TRUCKING CO., INC., P.O. Box 26, Holly Ridge, NC 28445. Representative: C. W. Fletcher (same as applicant). *Glass and glass products* from its facilities at or near Laurinburg, NC to points in OH, IN, IL and MI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Libbey-Owens-Ford Company, 811 Madison, Toledo, OH 43695. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd, Rm. CC516, Charlotte, NC 28205.

MC 125368 (Sub-102TA), filed November 20, 1979. Applicant: CONTINENTAL COAST TRUCKING COMPANY, INC., P.O. Box 26, Holly Ridge, NC 28445. Representative: C. W. Fletcher (same as applicant). *Flat glass and glass products* from Toledo, OH to points in NC, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Libbey-Owens-Ford Company, 811 Madison, Toledo, OH 43695. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd, Rm. CC516, Charlotte, NC 28205.

MC 125708 (Sub-186TA), filed October 31, 1979. Applicant: THUNDERBIRD MOTOR FREIGHT LINES, INC., 425 W. 152nd Street, East Chicago, IN 46312. Representative: Anthony C. Vance, 1307 Dolley Madison Blvd., McLean, VA 22101. *Iron and steel articles,* from East Jordan, MI, to points in the United States (except AK and HI) for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): East Jordan Iron Works, Inc., P.O. Box 439, East Jordan, MI 49727. Send protests to: Annie Booker, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 126118 (Sub-205TA), filed November 15, 1979. Applicant: CRETE CARRIER CORPORATION, P.O. Box 81228, Lincoln, NE 68501. Representative: David R. Parker (same address as applicant). *Cigarettes and tobacco products (except in bulk)* from Durham, NC to Dallas, Houston and San Antonio, TX and their commercial zones for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): Liggett & Meyers Tobacco Company, Inc., George G. Outlaw, Traffic Manager, P.O. Box 1572, Durham, NC 27702. Send protests to: D/S Carrol Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68012.

MC 126118 (Sub-206TA), filed November 20, 1979. Applicant: CRETE CARRIER CORPORATION, P.O. Box 81228, Lincoln, NE 68501. Representative: David R. Parker (same address as applicant). *Animal food (except in bulk), materials, supplies and ingredients used in the manufacture, distribution and sale of animal food (except in bulk), and pet supplies (except in bulk)* between Lincoln, NE and its commercial zone on the one hand, and on the other, points in AZ, AR, CO, KS, LA, MN, MO, NM, OK and TX for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): International Foods Company, Inc., Jerry K. Houghlan, Director, 766 NBC Center, Lincoln, NE 68508. Send protests to: D/S Carrol Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68012.

MC 127579 (Sub-34TA), filed October 22, 1979. Applicant: HAULMARK TRANSFER, INC., 1100 N. Macon St., Baltimore, MD 21205. Representative: Glenn M. Heagerty (same as applicant). (1) *Candy and confectionery* (except in bulk), (2) *Advertising and display paraphernalia* from the facilities of The Schrafft Candy Co., boston and Woburn, MA, and W. Reading, PA to CA, IL, IN, MD, MI, MO, OH, OR, TX, and WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): The Schrafft Candy Company, Sullivan Square, Boston, MA 02129. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St, Rm. 620, Phila, PA 19106.

MC 129759 (Sub-37TA), filed November 2, 1979. Applicant: TRIANGLE TRUCKING CO., P.O. Box 490, McKees Rocks, PA 15136. Representative: A. Charles Tell, 100 E. Broad St., Columbus, OH 43215. Contract carrier-irregular routes: (1) *Pipe and tubing,* from the facilities of Trent Tube, Division of Colt Industries at East Troy, WI to points in and east of MN, IA, MO, AR, and LA, and (2) *equipment, materials and supplies used in the manufacture of pipe and tubing* from points in the destination territory specified in (1) above, to the facilities of Trent Tube, Division of Colt Industries at East Troy, WI, under continuing contract(s) with Trent Tube, Division of Colt Industries, for 180 days. Supporting shippers(s): Trent Tube, Division of Colt Industries, 2188 Church St., East Troy, WI 53120. Send protests to: I.C.C., 101 N. 7 St., Philadelphia, PA 19106.

MC 133189 (Sub-36TA), filed November 29, 1979. Applicant: VANT TRANSFER, INC., 1257 Osborne Road, Minneapolis, MN 55432. Representative: John B. Van de North, Jr., c/o Briggs and Morgan, 2200 First National Bank Building, St. Paul, MN 55102. *Lumber,* from Marcell, MN to points in IA, for 180 days. An underlying ETA seeks 90 days. Supporting shipper(s): Tri-State Lumber Co., General Mgr., 217 Lake Ave. S., Duluth, MN 55802. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Mpls., MN 55104.

MC 133689 (Sub-319TA), filed November 26, 1979. Applicant: OVERLAND EXPRESS, INC., 8651 Naples Street Northeast, Blaine, MN 55434. Representative: Robert P. Sack, P.O. Box 6010, West St. Paul, MN 55118. *Foodstuffs,* from the facilities of Holsum Foods at or near Albert Lea, MN to points in AL & FL, 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Holsum Foods, Traffic Mgr., 919 14th St., Albert Lea, MN 56007. Send protests to: Judith L. Olson, TA, ICC 414 Fed. Bldg., 110 S. 4th St., Mpls., MN 55401.

MC 133689 (Sub-320TA), filed November 23, 1979. Applicant: OVERLAND EXPRESS, INC., 8651 Naples St., NE, Blaine, MN 55434. Representative: Robert P. Sack, P.O. Box 6010, W. St. Paul, MN 55118. *Tools, jacks and related articles, advertising material, equipment, materials and supplies (except in bulk) used in the manufacturing and distribution of commodities described above* between Searcy, AR and Owatonna, MN on the one hand, and, on the other, points in the U.S. in and east of ND, SD, NE, KS, OK and TX, for 180 days. Supporting shipper(s): Owatonna Tool Co., Owatonna, MN 55060. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 133689 (Sub-321TA), filed November 6, 1979. Applicant: OVERLAND EXPRESS, INC., 8651 Naples St. NE, Blaine, MN 55434. Representative: Robert P. Sack, P.O. Box 6010, West St. Paul, MN 55118. *Edible flour, bakery mixes and bases for bakery mixes (except commodities in bulk)* from facilities of Peavey Company

at or near Alton, IL to points in the United States in and east of ND, SD, NE, KS, OK, AR, and LA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Peavey Co., 145 W. Broadway, Alton, IL 62002. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 135069 (Sub-5TA), filed November 13, 1979. Applicant: ROCKAWAY TRUCKING, INC., Route 46, Rockaway, NJ 07866. Representative: Dixie C. Newhouse, 1329 Pennsylvania Avenue, P.O. Box 1417, Hagerstown, MD 21740. Contract, irregular. *Trichloromonofluoromethane, dichlorodifluoromethane and monochlorodifluoromethane gases, in containers.* Between Wichita, KS on the one hand and on the other, points in CT, DE, ME, MA, NH, NJ, NY, OH, PA, RI, VA, VT, WV and the District of Columbia, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Racon, Incorporated, 6040 South Ridge Road, Wichita, KS 67201. Send protests to: Joel Morrows, D/S, ICC, 744 Broad St., Room 522, Newark, NJ 07102.

MC 135678 (Sub-10TA), filed November 21, 1979. Applicant: MIDWESTERN TRANSPORTATION, INC., 20 S.W. 10th, Oklahoma City, OK 73125. Representative: C. L. Phillips, Classen Terrace Bldg., Room 248, 1411 N. Classen, Oklahoma City, OK 73106. *Wood, built up or combined, or plywood; composition board and accessories, K.D. in vans,* from Azusa, Anaheim and Hawthorne, CA and Bend, OR, to Oklahoma City, OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Altec Lansing Sound Products, 10500 West Reno, Oklahoma City, OK 73128. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 135678 (Sub-11TA), filed November 13, 1979. Applicant: MIDWESTERN TRANSPORTATION, INC., 20 S.W. 10th, Oklahoma City, OK 73125. Representative: C. L. Phillips, Rm. 248, 1411 N. Classen, Oklahoma City, OK 73106. *Castings, N.O.I.,* from Los Angeles, CA, to Oklahoma City, OK, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Tribonetics Company, 108 N.E. 48th, P.O. Box 18365, Oklahoma City, OK 73105. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 135678 (Sub-12TA), filed November 19, 1979. Applicant: MIDWESTERN TRANSPORTATION, INC., 20 S.W. 10th, Oklahoma City, OK 73125. Representative: C. L. Phillips, Room 248, 1411 N. Classen, Oklahoma City, OK 73106. *Common* Carrier: *Regular* Route: *General commodities,* except those of unusual value, Classes A & B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment, between Oklahoma City, OK and Fort Smith, AR, serving no intermediate points: From Oklahoma City over Interstate Hwy 40 to junction U.S. Hwy 64, then over U.S. Hwy 64 to Fort Smith, and return over the same route, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Rheem Manufacturing Company, 5600 Old Greenwood Road, Ft. Smith, AR 72903. TRW Replacement Div., 10 N.E. 19th St., Oklahoma City, OK 73105. Carpenter Paper Co., 3316 Towson Ave., Ft. Smith, AR 72901. Midwest Bolt and Supply, 297 N. Harvard Ave., Oklahoma City, OK 73127. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 135989 (Sub-13TA), filed November 28, 1979. Applicant: COAST EXPRESS, INC., 14280 Monte Vista Avenue, Chino, California 91710. Representative: William J. Lippman, 50 South Steele Street, Suite 330, Denver, Colorado 80209. *Contract;* Irregular; *Canned seafoods and pet foods,* from Los Angeles, CA to Seattle and Spokane, WA, Portland and Salem, OR, Phoenix, AZ, Salt Lake City, UT and Oklahoma City, OK, for 180 days. Supporting shipper(s): Star-Kist Foods, Inc., Traffic Manager, 582 Tuna Street, Terminal Island, CA 90731. Send protests to: Irene Carlos, TA, ICC, Room 1321 Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 136818 (Sub-100TA), filed November 13, 1979. Applicant: SWIFT TRANSPORTATION CO. INC., 335 W. Elwood Rd., Phoenix, AZ 85030. Representative: Donald Fernaays, 4040 E. McDowell Rd., Phoenix, AZ. *Insulating materials,* from the facilities of Pabco Insulation Division of Louisiana-Pacific Corp. at or near Fruita, CO to points in AR, AZ, CA, KS, LA, MO, OK, TX, for 180 days. Supporting shipper: Pabco Insulation Division, 1110 16 Road, Fruita, CO 81521. Send protests to: Ronald R. Mau, District Supervisor, 2020 Federal Bldg., 230 N. 1st Ave., Phoenix, AZ 85025.

MC 136818 (Sub-101TA), filed November 13, 1979. Applicant: SWIFT TRANSPORTATION CO. INC., 335 W. Elwood Rd., Phoenix, AZ 85030. Representative: Donald Fernaays, 4040 E. McDowell Rd., Phoenix, AZ. *Iron and steel articles,* from points in CA to points in TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Ramsey Steel Co., Inc., 4137 Rosa, El Paso, TX. Send protests to: Ronald R. Mau, District Supervisor, 2020 Federal Bldg., 230 N. 1st Ave., Phoenix, AZ 85025.

MC 138308 (Sub-96TA), filed November 19, 1979. Applicant: KLM, INC., P.O. Box 6098, Jackson, MS 39205. Representative: Donald B. Morrison, P.O. Box 22628, Jackson, MS 39205. *Telephones, telephone parts and housings and electrical cable or wire* from the facilities of GTE Automatic Electric, Incorporated, Huntsville, AL to the facilities of GTE Telecommunications Systems in Salt Lake City, UT for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): GTE Automatic Electric, Inc., 13000 Memorial Parkway South, Huntsville, AL 35803. Send protests to: Alan Tarrant, D/S, ICC, Fed. Bldg., Suite 1441, 100 W. Capitol St., Jackson, MS 39201.

MC 138328 (Sub-106TA), filed November 15, 1979. Applicant: CLARENCE L. WERNER d.b.a. WERNER ENTERPRISES, I-80 and Highway 50, P. O. Box 37308, Omaha, NE 68137. Representative: J. F. Crosby, I-80 and Highway 50, P.O. Box 37205, Omaha, NE 68137. *Iron and steel articles* from the facilities of Nucor Corporation at or near Norfolk, NE to points in WA, OR, NV, CA, ID, UT, AZ, MT, WY, CO, NM, ND, SD, KS, OK, TX, MN, IA, MO, AR, WI, IL, IN, MI, OH and KY for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Nucor Corporation, DeLane Pate, Manager, Cold Drawn Operations, P.O. Box 59, Norfolk, NE 68701. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th Street, Omaha, NE 68102.

MC 138328 (Sub-107TA), filed November 8, 1979. Applicant: CLARENCE L. WERNER d.b.a. WERNER ENTERPRISES, I-80 and Highway 50, P.O. Box 37308, Omaha, NE 68137. Representative: J. F. Crosby, I-80 and Highway 50, P.O. Box 37205, Omaha, NE 68137. *General commodities (except commodities in bulk, in tank vehicles; commodities which because of size or weight require the use of special equipment; and explosives)* between Houston and Pasadena, TX; Kansas City, KS; Seneca, Spartanburg and Startex, SC, on the one hand, and on the other, points in the United States (except AK and HI). Restricted to the transportation of shipments originating at or destined to the facilities of Phillips Petroleum Company, Phillips Fibers Corporation, Phillips Chemical Company and Phillips Products Company, Inc. An

underlying ETA seeks 90 days authority. Supporting shipper(s): Phillips Petroleum Company, J. M. Roberts, Director, Chemical Products Distribution, 148 Phillips Building Annex, Bartlesville, OK 74004. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th Street, Omaha, NE 68102.

MC 138388 (Sub-9TA), filed November 21, 1979. Applicant: CHESTER CAINE, JR. d.b.a. CAINE TRANSFER, Box 376, Lowell, WI 53571. Representative: James Spiegel, 6425 Odana Road, Madison, WI 53719. (a) *Cheese and cheese products, synthetic cheese and synthetic cheese products, and* (b) *materials, equipment and supplies used in the manufacture or distribution of commodities listed in (a) above,* (1) between Clayton County, IA on the one hand, and, on the other hand, points in WI and (2) between Clayton County, IA on the one hand, and on the other hand, Van Wert, OH, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Borden Foods, 802 S. St., Plymouth, WI 53073. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 139349 (Sub-22TA), filed November 27, 1979. Applicant: E Z FREIGHT LINES, Gould and E. 46th Street, Bayonne, NJ 07002. Representative: Robert B. Pepper, 168 Woodbridge Avenue, Highland Park, NJ 08904. Contract carrier, irregular routes for 180 days. Candy, confectionery and supplies, except in bulk (1) from Covington, TN to points in the United States except AK and HI and (2) from Cataragus, NY to Covington, TN. An underlying ETA seeks 90 days authority. Supporting shipper(s): Charms Company, Halls Mill Road, Freehold, NJ 07728. Send protests to: Robert E. Johnston, DS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 140768 (Sub-45TA), filed December 6, 1979. Applicant: AMERICAN TRANS-FREIGHT, INC., P.O. Box 796, Manville, NJ 08835. Representative: Eugene M. Malkin, Suite 1832, 2 World Trade Center, New York, NY 10048. (1) *Lawn mowers, grass catchers and accessories* from the facilities of Fall Products, Inc. at or near Genoa, IL, to points in GA, IN, KY, NJ, OH, PA, VA and WV and (2) *equipment, materials and supplies* (except commodities in bulk and those which, because of size or weight, require the use of special equipment) used in the manufacture and distribution of the commodities above, in the reverse direction for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Falls Products, Inc., 415 Railroad Avenue, Genoa, IL 60135. Send protests to: Irwin Rosen, TS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 141489 (Sub-8TA), filed November 15, 1979. Applicant: HUNTER TRUCKING, INC., 805, 32nd Avenue, Council Bluffs, IA 51501. Representative: Greg A. Dickinson, Stern & Becker, P.C., Suite 610, 7171 Mercy Road, Omaha, NE 68106. *Feed and feed ingredients, in bulk and in bags* from points in IL, IA, MN, MO, and NE to the ports of entry on the U.S. Canadian border at Pembina, ND and Noyes, MN for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): (1) L. V. Patteson, Ltd., Jack R. Scott, Traffic & Transportation Manager, 360 Dawson Road, Winnipeg, Manitoba, Canada R2JOS7. (2) The Pillsbury Company, Dan Fields, Soybean Meal Merchandiser, 7900 Xerxes Avenue, South, Suite 700, Bloomington, MN 55431. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 141849 (Sub-8TA), filed November 12, 1979. Applicant: REGAL TRUCKING CO., INC., 95 Lawrenceville Industrial Park Circle, N.E. Lawrenceville, GA 30245. Representative: Richard M. Tettelbaum, Fifth Floor, Lenox Towers South, 3390 Peachtree Rd., N.E., Atlanta, GA 30326. *Contract* carrier: Irregular routes: *Carpet tack strips* from Asheville, NC to points in the US in and east of US Hwy 85, under continuing contract or contracts with Taylor Manufacturing, Inc. of Conyers, GA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Taylor Manufacturing, Inc., 1900 Rockdale Industrial Blvd., Conyers, GA 30207. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 142508 (Sub-129TA), filed November 8, 1979. Applicant: NATIONAL TRANSPORTATION, INC., P.O. Box 37465, 10810 South 144th Street, Omaha, NE 68137. Representative: Lanny N. Fauss, P.O. Box 37096, Omaha, NE 68137. *Prune Juice Concentrate* (except in bulk) from Yuba City, CA to Macedon, NY for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Diamond Sunsweet, Inc., Charles C. Parris, Traffic Manager, 1050 South Diamond Street, Stockton, CA 95201. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 142539 (Sub-6TA), filed November 16, 1979. Applicant: B.W.T. TRANSPORT, INC., 757 River Drive, Passaic, NJ 07055. Representative: Robert B. Pepper, 168 Woodbridge Avenue, Highland Park, NJ. 08904. Contract, Irregular. *Titanium Dioxide,* except in bulk. From Baltimore, MD, Elizabethport and Kearny, NJ and Houston, TX to points in the US except AK and HI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Laporte (North America) Ltd., 411 Hackensack Avenue, Hackensack, NJ 07601. Send protests to: Joel Morrows, D/S, ICC, 744 Broad St., Room 522, Newark, NJ 07102.

MC 142779 (Sub-2TA), filed November 27, 1979. Applicant: WEIER AIR FREIGHT, INC., 4938 S. Second St., Milwaukee, WI 53207. Representative: Wayne Wilson, 150 E. Gilman St., Madison, WI 53703. *General commodities, except those of unusual value, household goods as defined by the Commission, Classes A & B explosives, commodities in bulk, and those requiring special equipment,* between points in Brown, Calumet, Dodge, Fond du Lac, Manitowoc, Outagamie, Ozaukee, Sheboygan, Washington, and Winnebago Counties, WI on the one hand, and, on the other, Milwaukee, WI and Chicago, IL, restricted to transportation having a prior or subsequent movement by air, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Associated Air Freight, Inc., 5633 N. Pearl St., Rosemount, IL 60018. WTC Air Freight, 4849 N. Scott St., Suite 108, Shiller Park, IL 60176. and Air Express International, 4903 S. Howell Ave., Milwaukee, WI 53207. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 142999 (Sub-24TA), filed November 13, 1979. Applicant: TRANSPORT MANAGEMENT SERVICE CORPORATION, Post Office Box 39, Burlington, NJ 08016. Representative: Ronald N. Cobert, Esquire, 1730 M Street, NW., Suite 501, Washington, DC 20036. Contract, Irregular. *Starch and chemicals* from the facilities of National Starch and Chemical Corporation at or near Chicago and Meredosia, IL and Indianapolis, IN to points in CT, DE, MD, MA, NJ, NY, PA, RI and VA. Restriction: The authority requested is to be limited to a transportation service to be performed under a continuing contract or contracts with National Starch and Chemical Corporation, Bridgewater, NJ, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): National Starch and Chemical Corporation, 10 Finderne Avenue, Bridgewater, NJ 08807. Send protests to: Irwin Rosen, T/S, ICC, 744 Broad St., Room 522, Newark, NJ 07102.

MC 143328 (Sub-31TA), filed November 26, 1979. Applicant: EUGENE

TRIPP TRUCKING, P.O. Box 2730, Missoula, MT 59806. Representative: David A. Sutherland, Fulbright & Jaworski, Suite 400, 1150 Connecticut Ave NW., Washington, DC 20036. (1) *Malt beverages* and *related advertising materials, equipment and supplies* from the port of entry at Blaine, WA to points in AZ, CA, CO, MT, WA, WY and ID; and (2) *empty containers* and *materials and supplies used and dealt in by breweries* from points in AZ, CA, CO, MT, WA, WY and ID to the port of entry at Blaine, WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Rocky Mountain Importers, 1405 Sunflower Drive, Missoula, MT 59801. Send protests to: Paul J. Labane, DS, ICC, 2602 First Avenue North, Billings, MT 59101.

MC 143988 (Sub-10TA), filed November 14, 1979. Applicant: JAMES W. TATE d.b.a. Jamar Trucking, 2995Sandbrook, P.O. Box 18970, Memphis, TN 38118. Representative: Thomas A. Stroud, 2008, 5100 Poplar, Memphis, TN 38137. *Bananas, in refrigerated containers furnished by the shipper,* from Gulfport, MS, to points in AR, IN, KY, MI, MN, OH, TN, TX and WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): Chiquita Brands, Inc., 212 Veterans Blvd., Suite 100, Metairie, LA 70005. Send protests to: Floyd A. Johnson, Suite 2006, 100 N. Main St., Memphis, TN 38103.

MC 144029 (Sub-5TA), filed November 23, 1979. Applicant: CUMBERLAND TRANSPORTATION CORP., 5950 Fisher Road, P.O. Box 487, East Syracuse, NY 13057. Representative: Michael R. Werner, Esq., P.O. Box 1409, 167 Fairfield Road, Fairfield, NJ 07006. Contract carrier—irregular routes. *Such commodities as are used in or dealt by a manufacturer and distributor of paper and plastic products, and materials, supplies and equipment used in the manufacture of paper and plastic products (except commodities in bulk),* (1) Between Buffalo, NY and Bradford, PA, and (2) Ypsilanti, MI and Toledo, OH and its commercial zone, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): St. Regis Paper Company, Inc., 150 East 42nd Street, New York, NY. Send protests to: Anne Siler, TA, IC, 910 Federal Bldg., 111 West Huron Street, Buffalo, NY 14202.

MC 144188 (Sub-13TA), filed September 20, 1979. Applicant: P. L. LAWTON, P.O. Box 325, Berwick, PA 18603. Representative: J. Bruce Walter, 410 N. Third St., P.O. Box 1146, Harrisburg, PA 17108. *Fiberboard, paper, paperboard, plastic containers, and plastic wax,* from the facilities of Bercon Packaging, Inc., at Berwick, PA to pts. in IL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): Bercon Packaging Inc., 1800 N. Market St., Berwick, PA 18603. Send protests to: I.C.C. Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 144989 (Sub-18TA), filed November 21, 1979. Applicant: BLUE RIDGE MOUNTAIN CONTRACT CARRIER, INC., P.O. Box 1965, Dalton, GA 30720. Representative: S. H. Rich, 1600 Cromwell Ct., Charlotte, NC 28205. *Contract carrier;* irregular rottes: *Papaer and paper products, plastic and plastic products, and commodities used in the distribution of the foregoing commodities (except in bulk),* between Florence, KY, Greensburg, IN, Hazelwood, MO, St. Louis, MO and points in CA, IL, IA, KS, MN, MO, NE, OR, TX, and WA for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers(s): Crown Zellerbach Corp., One River Street, South Glens Falls, NY 12801. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 145189 (Sub-1TA), filed November 15, 1979. Applicant: RONALD E. MacFARLANE, 716 Woodstock Rd., Fredericton, New Brunswick. Representative: Verrill & Dana, Two Canal Plaza, Portland, ME 04112. Contract: Irregular: *Untreated rock salt* in bulk, by dump truck, from the International Boundary Line between the U.S. and Canada at or near Houlton, ME to points in Aroostook, Penobscot, Washington and Hancock Counties, ME, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Moore Chemicals, Inc., Box 216, Houlton, ME 04730. Send protests to: Donald G. Weiler, District Supervisor, ICC, 76 Pearl St., Rm. 303, Portland, ME. 04101.

MC 145219 (Sub-7TA), filed November 16, 1979. Applicant: BUILDERS TRANSPORT, INC., P.O. Box 2726, Savannah, GA 31402. Representative: B. M. Shirley, (address same as applicant). *Fire sprinkler systems and materials, equipment and supplies used in the distribution, installation or manufacture of fire sprinkler systems except commodities in bulk,* between Cleveland, NC and Dallas, TX, on the one hand, and on the other points in AL, AR, DE, FL, GA, LA, MD, MS, NJ, NC, PA, SC, TX, VA, WV, and DC for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Grinnell Fire Protection Systems Co., Inc., 10 Dorrance Street, Providence, RI 02903. Send Protests to: Jean King, TA, ICC, Box 35008, 400 West Bay Street, Jacksonville, FL 32202.

MC 145219 (Sub-8TA), filed December 7, 1979. Applicant: BUILDERS TRANSPORT, INC., P.O. Box 2726, Savannah, GA 31402. Representative: B. M. Shirley (address same as applicant). *Insulating, building and roofing panels, and equipment, materials and supplies used in the distribution, installation or manufacture of insulating, building and roofing panels,* between points in Greenville County, SC and Dallas County, TX, on the one hand, and, on the other points in the United States in and east of MN, IA, NE, KS, OK, and TX for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Rmax, Inc., 13524 Welch Road, Dallas, TX 75234. Send Protests to: Jean King, TA, ICC, Box 35008, 400 West Bay Street, Jacksonville, FL 32202.

MC 145359 (Sub-20TA), filed November 1, 1979. Applicant: THERMO TRANSPORT, INC., P.O. Box 41587, Indianapolis, IN 46241. Representative: Donald W. Smith, 9000 Keystone Crossing, Indianapolis, IN 46240. *Laminated plastic sheets, and materials and supplies used in the manufacture and distribution of laminated plastic sheets* from Coshocton, OH to Phoenix, AZ, Calexico, San Diego, Los Angeles, Costa Mesa, Mountainview, and Emeryville, CA, Aurora, CO, Dallas and Houston, TX for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: General Electric Laminated & Insulation Materials Business Dept., 1350 South Street, Coshocton, OH 43812. Send protests to: Beverly J. Williams, Transportation Assistant, ICC, 429 Federal Bldg., 46 East Ohio Street, Indianapolis, IN 46204.

MC 145359 (Sub-21TA), filed November 7, 1979. Applicant: THERMO TRANSPORT, INC., P.O. Box 41587, Indianapolis, IN 46241. Representative: Donald W. Smith, 9000 Keystone Crossing, Indianapolis, IN 46240. *Foil containers* from Shelbyville, KY to Marshall and Carrollton, MO for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Revere Foil Containers, Inc., P.O. Box 168, Shelbyville, KY 40065. Send protests to: Beverly J. Williams, Transportation Assistant, ICC, 429 Federal Bldg., 46 E. Ohio Street, Indianapolis, IN 46204.

MC 145939 (Sub-3TA), filed November 20, 1979. Applicant: ATLANTIC CARRIERS, INC., P.O. Box 284, Atlantic, IA 50022. Representative: James F. Crosby, P.O. Box 37205, Omaha, NE 68137. *Dicalcium phosphate, monocalcium phosphate, and limestone* from Weeping Water, NE to points in IL, IA, MN and to Janesville and

Monticello, WI for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Texas Gulf, Inc., Jerry Brim, Sales Manager, Weeping Water, NE 68463. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 146309 (Sub-3TA), filed November 29, 1979. Applicant: Irvin D. Blair d.b.a., D & T TRUCKING CO., 4300 Curtis Ave., Baltimore, MD 21226. Representative: Walter T. Evans, 7961 Eastern Ave., Silver Springs, MD 20910. *Contract, irregular; Steel,* (1) from Baltimore, MD, to DC and points in PA, VA, and WV and (2) from NJ, PA, and VA to Baltimore, MD, under a continuing contract with Alexandria Steel Corp., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Alexandria Steel Corp., 4501 Curtis Ave., Baltimore, MD 21225. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 146309 (Sub-4TA), filed November 16, 1979. Applicant: Irvin D. Blair d.b.a., D & T TRUCKING CO., 4300 Curtis Ave., Baltimore, MD 21226. Representative: Walter T. Evans, 7961 Eastern Ave., Silver Springs, MD 20910. Contract carrier-irregular routes: *Steel and steel products* (1) from Baltimore, MD to DC and points in VA, under a continuing contract with Stone Steel Corporation, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Stone Steel Corp., 4501 Curtis Ave., Baltimore, MD 21225. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Philadelphia, PA 19106.

MC 146349 (Sub-2TA), filed November 6, 1979. Applicant: D. D. & B. TRUCKING, INC., R.R. 1, Shoals, IN 47581. Representative: Walter F. Jones, Jr., 601 Chamber of Commerce Bldg., Indianapolis, IN 46204. *Contract carrier:* Irregular routes: *Lumber* between points in IN, OH, MI, IL, TN, KY, MO and PA for 180 days. Supporting shipper: L. B. Foster, Company, 1111 E. Touhy Ave., Des Plaines, IL 60018. Send protests to: Beverly J. Williams, Transportation Asst., ICC, 429 Federal Bldg., 46 E. Ohio Street, Indianapolis, IN 46204.

MC 146448 (Sub-10TA), filed November 9, 1979. Applicant: C & L TRUCKING, INC., P.O. Box 409, Judsonia, AR 72081. Representative: Theodore Polydoroff, Suite 301, 1307 Dolley Madison Blvd., McLean, VA 22101. *Such commodities as are dealt in by retail and department stores* (except commodities in bulk) from points in CT, MD, MA, NJ, NY, PA and RI to the facilities of or used by Wal-Mart Stores, Inc., in AL, AR, IL, KS, KY, LA, MS, MO, OK, TN and TX, for 180 days. Underlying ETA seeks 90 days authority. Supporting shipper(s): Wal-Mart Stores, Inc., P.O. Box 116, Bentonville, AR 72712. Send protests to: William H. Land, DS, 3108 Federal Bldg., Little Rock, AR 72201.

MC 146518 (Sub-7TA), filed November 19, 1979. Applicant: OWEN MOTOR FREIGHT LINE, INC., P.O. Box 7516, Alexandria, LA 71306. Representative: Bruce E. Mitchell, Suite 520, 3390 Peachtree Road, N.E., Atlanta, GA 30326. *Iron and steel articles* from Woodside, NY; New Britain, CT; Butler, PA, Chicago, IL; and Crawsfordville, IN to points in AL, AR, MS, TN, TX, FL, MO, KY, KS, GA, LA, NM, and OK, for 180 days. Applicant has filed an underlying ETA seeking 90 days. Supporting shipper(s): Delta Strapping Industries, Inc., 5850 52nd Ave., Woodside, NY 11377. Delta Strapping Corporation, P.O. Box 5070. Longview, TX 75604. Send protests to: Robert J. Kirspel, DS, ICC, T-9038 Federal Bldg., 701 Loyola Ave., New Orleans, LA 70113.

MC 146758 (Sub-3TA), filed November 19, 1979. Applicant: LADLIE TRANSPORTATION, INC., 103 East Main Street, Albert Lea, MN 56007. Representative: Robert S. Lee, 1000 First National Bank Building, Minneapolis, MN 55402. *Such commodities dealt in or used by manufacturers and converters of paper and paper products (except commodities in bulk),* from the facilities of Nekoosa Papers, Inc., in Portage and Wood Counties, WI, to points in AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Nekoosa Papers, Inc., Asst. to Mgr. of Transportation, Port Edward, WI 54469. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 146898 (Sub-3TA), filed November 2, 1979. Applicant: MICKS SERVICE, INC., 2146 Camanche Ave., Clinton, IA 52732. Representative: Carl E. Munson, 469 Fischer Bldg., Dubuque, IA 52001. *Contract carrier*—irregular routes; *Corn products, in packages,* from Clinton, IA, to points in IL, IN, OH, and WI, under contract with Clinton Corn Processing Company, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Clinton Corn Processing Company, P.O. Box 340, Clinton, IA 52732. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 146949 (Sub-11TA), filed November 20, 1979. Applicant: MCINVALE TRUCK LINES, INC., 5965 Hwy. 18 W, Jackson, MS 39209. Representative: Donald B. Morrison, P.O. Box 22628, Jackson, MS 39205. (1) *Plastic dinnerware* from the facilities of National Home Products, Inc., at or near Port Gibson, MS to points in CA, CT, FL, MA, NY, and NC and (2) *plastic materials,* other than expanded (except in bulk, in tank vehicles) from Wallingford, CT, Florence, MA, and Midland, MI to the facilities of National Home Products, Inc., at or near Port Gibson, MS for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): National Home Products, Inc., P.O. Box 568, Port Gibson, MS 39150. Send protests to: Alan Tarrant, D/S, ICC, Fed. Bldg., Suite 1441, 100 W. Capitol St., Jackson, MS 39201.

MC 146989 (Sub-6TA), filed November 27, 1979. Applicant: GOLDEN-HAMMONS CARTAGE CO., INC., d.b.a. G & H CARTAGE, 1749 Florida St., Memphis, TN 38109. Representative: A. Doyle Cloud, 2008 Clark Tower, 5100 Poplar, Memphis, TN 38137. (1) *Wood burning stoves and accessories* and *gas tanks and accessories,* from the facilities of Skyline Industries located at Como, MS, to Pleasant Grove, UT; New York, NY; Thompson Ridge, NY; Bullville, NY; Dover, NJ; and (2) *wood burning stoves and accessories* and *gas tanks and accessories,* from the facilities of Skyline Industries located at Pleasant Grove, UT, to New York, NY. (3) *materials, equipment and supplies* used in the manufacture and distribution of commodities described in (1) and (2) from Dover, OH, Bessemer, AL, and West Memphis, AR to the facilities of Skyline Industries at Como, MS and Pleasant Grove, UT, for 180 days. An underlying ETA seeks 90 days authority. Applicant intends to tack this authority to his authority held in MC 146989 Sub 1TA. Supporting shipper(s): Skyline Products, Ole Mill St., Como, MS. Send protests to: Floyd A. Johnson, Suite 2000, 100 N. Main St., Memphis, TN 38103.

MC 147249 (Sub-1TA), filed November 14, 1979. Applicant: MELVIN C. BRENAMAN, R.F.D. #1, Box 78, Grendell Rd., Mapleton, ME 04757. Representative: Same as applicant. *Contract:* Irregular: *Coal,* in bulk, in dump type vehicles, from Kittery, Westbrook and Winslow, ME to the port of entry on the International Boundary Line between the U.S./Canada at or near Jackman, ME. An underlying ETA seeks 90 days authority. Supporting shipper(s): Zielinski Brothers, 218 Shoemaker Lane, Agawam, MA 01001. Send protests to: Donald G. Weiler, District Supervisor, ICC, 76 Pearl St., Rm. 303, Portland, ME 04101.

MC 147948 (Sub-8TA), filed November 28, 1979. Applicant: A. J. ROSS ENTERPRISES, INC., 225 Smith Street, Keasbey, NJ 08832. Representative:

Morton E. Kiel, Suite 1832, 2 World Trade Center, New York, NY 10048. *Structural steel* from the facilities of Standard Erecting Company, in Newington, CT to Chicopee, MA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Standard Erecting Company, Inc., 86 Day Street, Newington, CT 06111. Send protests to: Irvin Rosen, TS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 148188 (Sub-8TA), filed September 28, 1979. Applicant: RETAIL LEASING CORP., d.b.a. RETAIL TRANSPORTATION COMPANY, 11301 Rockville Pike, Kensington, MD 20795. Representative: Edward F. Schiff, 1333 New Hampshire Ave., NW., Washington, DC 20036. *Contract carrier:* Irregular routes: *Shoes, soles, heels and raw materials* used in the manufacturer of boots, shoes, and soles, (1) from Laredo, TX to Columbus, OH; (2) Between Conway, AK and Columbus, OH; (3) between Columbus, OH and New York, NY, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): R. G. Barry Corp., 13405 Yarmouth Rd. NW., Pickerington, OH 43147. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 148188 (Sub-9TA), filed October 24, 1979. Applicant: RETAIL LEASING CORP., d.b.a. RETAIL TRANSPORTATION COMPANY, 11301 Rockville Pike, Kensington, MD 20795. Representative: Edward F. Schiff, 1333 New Hampshire Ave., NW., Washington, DC 20036. *Contract carrier:* Irregular routes: *Such fashion merchandise as is dealt in by retail department stores* (except commodities in bulk, in tank vehicles) from Greenville, AL to Woburn, MA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Mast Industries, Inc., 270 W. Cummings Park, Woburn, MA 01801. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 148188 (Sub-10TA), filed November 8, 1979. Applicant: RETAIL LEASING CORP., d.b.a. RETAIL TRANSPORTATION COMPANY, 11301 Rockville Pike, Kensington, MD 20795. Representative: Edward F. Schiff, 1333 New Hampshire Ave., NW., Washington, DC 20036. *Contract carrier:* Irregular routes: *Computer Addressed forms,* from Marion, OH to Marceline, MO, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Fulfillment Corporation of America, 205 W. Center, Marion, OH 44302. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 148189 (Sub-2TA), filed November 19, 1979. Applicant: THE OVERLAND COURIER CORPORATION, 238 West Street, Annapolis, MD 21401. Representative: Edward F. Schiff, 1333 New Hampshire Ave., NW., Washington, DC 20036. *General commodities,* (except commodities in bulk, in tank vehicles, commodities of unusual value, Class A and B explosives and household goods, as that term is defined by the Commission) having a prior or subsequent movement by air, between points in the counties of Anne Arundel, Baltimore, Calvert, Charles, Howard, Montgomery, Prince George's and Saint Mary's and the City of Baltimore, MD, on the one hand, and, on the other (1) points in the following counties: Arlington, Fairfax and Loudoun and the City of Alexandria, all in the Commonwealth of VA; and (2) Washington, DC, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): WTC Air Freight, Annapolis, MD. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 148299 (Sub-1TA), filed November 26, 1979. Applicant: CHAMY TRANSPORT LTD., 3080 Bernard Pilon Street, St Mathieu de Beloeil, Quebec, CD J3G 4S5. Representative: W. Norman Charles, P.O. Box 724, Glens Falls, NY 12801. *Steel wire, rods and coils,* from ports of entry on the United States-Canada Boundary Line at or Near Alexandria Bay, Champlain, Niagara Falls and Ogdensburg, NY and Highgate Springs, VT to Branford and Georgetown, CT; Wilmington, DE; Baltimore, and Bladensburg, MD; Medford, Oxford, Taunton, Westfield and Worcester, MA; Jaffrey, NH; Hasbrouck Heights, Paterson and Somerville, NJ; Brooklyn and Tonawanda, NY; Erie, Philadelphia and York, PA; and Warrenton, VA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): IVACO Rolling Mills, a Division of IVACO, Ltd., 800 Quelette Street, Marieville, Quebec, CD G0l 1G0. Send protests: Carol A. Perry, ICC, PO Box 548, Montpelier, VT 05602.

MC 148359 (Sub-2TA), filed November 5, 1979. Applicant: JOHN FURA & SON, INC., R.D. #2, Verona, New York 13478. Representative: Herbert M. Canter and Benjamin D. Levine, Esqs. 305 Montgomery Street, Syracuse, NY 13202. *Scrap metal, in dump vehicles,* from the facilities of Oneida Limited Silversmiths at Sherrill, NY to Canton, OH, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Oneida Limited Silversmiths, Oneida, NY 13421. Send protests to: David M. Miller, DS, ICC, 436 Dwight Street, Springfield, MA 01103.

MC 148449 (Sub-1TA), filed November 1, 1979. Applicant: DARRELL G. Chavis, 20 Contact Ct., Baltimore, MD 21220. Representative: James W. Patterson, 1200 Western Savings Bank Bldg., Philadelphia, PA 19107. Contract carrier-irregular routes: *Such merchandise as is dealt in by wholesale, retail, and chain grocery and food business houses, and in connection therewith, equipment, materials and supplies used in the conduct of such business,* between points in the territory bounded by a line beginning at Cape Charles, VA, and extending in a southerly direction along the Chesapeake Bay to the Atlantic Ocean, then in a northerly direction along the Chesapeake Bay to the Atlantic Ocean, then in a northerly direction along the Atlantic Coast to the Delaware Bay, then along the west shore of the Delaware Bay and Delaware River to Delaware City, DE, then in a northwesterly direction through Newark, DE, to the point of intersection of the MD-DE-PA State lines, then in a westerly direction along the MD-PA State line to the Susquehanna River, then in a northwesterly direction along the Susquehanna River to Columbia, PA, then in a easterly direction to Lancaster, PA, then in a northwesterly direction to Lebanon, PA, then in a westerly direction to Newport, PA, then in a southwesterly direction to Markleysburg, PA, then in a southeasterly direction through Winchester, Va and Fredericksburg, VA, to Cape Charles, VA, including points on the above-described boundary line under a continuing contract(s) with Acme Markets, Inc., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Acme Markets, Inc., 124 N. 15th St., Philadelphia, PA 19101. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Philadelphia, PA 19106.

MC 148458 (Sub-1TA), filed November 6, 1979. Applicant: MOTOR TRUCK TRANSPORT, 695 E. 27th St., Long Beach, CA 90806. Representative: Richard V. Stanton, 695 E. 27th St., Long Beach, CA 90806. *Paper and paper products as defined in NMFC,* from Crown Zellerbach facility located at 3416 S. Garfield, Commerce, CA, to the State of Arizona, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Crown Zellerbach, 3416 So. Garfield, Commerce, CA 90040. Send protests to: Irene Carlos, T/A, I.C.C., 300

N. Los Angeles St., Rm. 1321, Los Angeles, CA 90012.

MC 148459 (Sub-1TA), filed October 19, 1979. Applicant: ACME VAN SERVICE, INC., 1337 S. Hanover St., Baltimore, MD 21230. Representative: William D. Dailey, 7774 Woodbine Rd., Woodbine, MD 21797. *Used household goods restricted to the transportation of traffic having a prior or subsequent movement, in containers, beyond the points authorized and further restricted to the performance of pick-up and delivery service in connection with packing, crating, and containerization or unpacking, uncrating, and decontainerization of such traffic,* between Baltimore City, Anne Arundel County, Howard County, Prince Georges County, Baltimore County, Carroll County, Montgomery County, Harford County, Cecil County, Kent County, all within the State of Maryland, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): DIO Contracting Div., Fort Meade, MD 20755. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St, Rm. 620, Phila, PA 19106.

MC 148489 (Sub-1TA), filed November 9, 1979. Applicant: GAN-TRANS, LTD., 14276 Wicks Blvd., San Leandro, CA 94577. Representative: G. A. Naman, same address as above. (1) *Insulation, insulation materials and materials and supplies* used in the installation of insulating materials; (2) *Chemicals, and cleaning compounds,* (1) from Willows, CA to all points in OR, WA, ID, UT, NV, AZ, (2) from Union City, CA to all points in OR, WA, UT for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Western Omega Chemical Company, Inc., 201 Daggett St., Union City, CA 94587. Johns-Manville Sales Corp., 2600 Campus Dr., San Mateo, CA 94403. Send protests to: D/S A. J. Rodriguez, 211 Main, Suite 500, San Francisco, CA 94105.

MC 148478 (Sub-1TA), filed October 22, 1979. Applicant: TIMBER EXPRESS, INC., 4601 N. High St., Columbus, OH 43214. Representative: Jerry B. Sellman, 50 W. Broad St., Columbus, OH 43215. *Lumber and plywood* from Greenville, GA to points in the U.S. in and east of MN, NE, KS, OK and TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Woodkraft, Wood Products Div of Georgia Kraft, P.O. Box 2489, Peachtree City, GA 30269. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Philadelphia, PA 19106.

MC 148519 (Sub-1TA), filed November 23, 1979. Applicant: DiVERONICA BROS. INC., 127 Spencer Street, Canastota, NY 13032. Representative: Robert D. Gunderman, Esq., 710 Statler Building, Buffalo, NY 14202. *Stainless steel scrap, in bulk, in dump vehicles,* from Sherrill, NY to Canton, OH, restricted to traffic transported under a continuing contract with Oneida Limited Silversmiths, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Oneida Limited Silversmiths, Oneida, NY. Send protests to: David M. Miller, DS, ICC, 436 Dwight Street, Springfield, MA 01103.

MC 148638 (Sub-2TA), filed November 5, 1979. Applicant: ELMO W. & GARY D. CARLSON, d.b.a. CARLSON LEASING CO., 1229 Clarke Street, Clay Center, KS 67432. Representative: William E. Barker, 641 Harrison, P.O. Box 1979, Topeka, KS 66603. *Feed and feed ingredients,* between points in Clay, Cloud and Riley Counties, KS on the one hand, and points in MO, NE, and OK on the other; for 180 days, common, irregular; Supporting shippers: Farmers Union Coop, 314 Lincoln, Clay Center, KS 67432 and Longford Mill Products, Inc., 2420 7th Street, Clay Center, KS 67432 and Key Milling Co., Inc., Clay Center, KS 67432; Send protests to: M. E. Taylor, DS, ICC, 101 Litwin Bldg., Wichita, KS 67202.

MC 148658TA, filed November 16, 1979. Applicant: HOWARD EATON, d.b.a. HOWARD EATON TRUCKING, 4985 Pineaire Lane, West Palm Beach, FL 33409. Representative: R. Gregory Plimpton, Esq., P.O. Box 14366, North Palm Beach, FL 33408. Contract Carrier—Irregular Route: *Aqueous extract of seaweed, a liquid in plastic containers,* from West Palm Beach and Riviera Beach, FL to Hondo, TX, Nogales, AZ, Five Points, Modesto, Sacramento, and Salinas, CA, and Boise, ID for 180 days. Supporting shipper(s): Atlantic & Pacific Research, Inc., P.O. Box 14366, North Palm Beach, FL 33408. Send protests to: Donna M. Jones, T/A, ICC—BOp, Monterey Bldg., Suite 101, 8410 N.W. 53rd Ter., Miami, FL 33166.

MC 148678 (Sub-1TA), filed November 19, 1979. Applicant: McGRATH TRUCKING INC., 229 Old Elm Street, Mansfield, MA 02048. Representative: Ronald McGrath (same address as applicant). Contract-irregular, *Such commodities as are dealt in by retail department stores,* between points in MA, on the one hand, and, on the other, points in FL and GA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Zayre Corp., Framingham, MA 01701. Send protests to: Gerald H. Curry, DS, ICC, 24 Weybosset St., Room 102, Providence, RI 02903.

MC 148709 (Sub-1TA), filed November 21, 1979. Applicant: D & H TRUCKING CO., Route 2, Box 2161, Nampa, ID 83651. Representative: Stephen L. Beer, 207 W. Washington, Boise, ID 83702. *Oil drilling mud compounds,* to and from points in Rock Springs, WY, Soda Springs, ID, and Battle Mountain, NV and their commercial zones, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Milchem, Inc., P.O. Box 1369, Rock Springs, WY; Petro Chem, Box 2023, Rock Springs, WY; Steven Suthers, P.O. Box 579, Rock Springs, WY 82901; Drilling Mud, Inc., P.O. Box 2229, Rock Springs, WY. Send protests to: Barney L. Hardin, D/S, ICC Suite 110, 1471 Shoreline Dr., Boise, ID 83702.

MC 148719 (Sub-1TA), filed November 16, 1979. Applicant: LOREN LARSON, d.b.a. FAIRMONT BODY SHOP, 1013 Winnebago Ave., Fairmont, MN 56031. Representative: Gene P. Johnson, P.O. Box 2471, Fargo, ND 58108. (1) *Wrecked or disabled motor vehicles and trailers, and (2) replacement vehicles for wrecked and disabled motor vehicles and trailers* between points in IA, MN, ND, SD, and WI, restricted to the transportation of traffic requiring the use of wrecker equipment in towaway service, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): There are 8 shippers. Their statements may be examined at the office listed below and Headquarters. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 148738 (Sub-1TA), filed November 14, 1979. Applicant: JOE MORRIS TRUCKING, 201 Cush St., Jackson, MN 56143. Representative: Stanley C. Olsen, Jr., 7400 Metro Blvd., Suite 411, Edina, MN 55435. *Feed, feed ingredients, and health aids and materials, equipment and supplies used in the manufacture and sale thereof* between the facilities of the Ralson Purina Co. at or near Sioux City, IA on the one hand, and on the other, points in MN, NE, and SD, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Ray's Feed Service, P.O. Box 186, Windom, MN 56101, Ralston Purina Co., 4600 Stone Ave., Sioux City, IA 51106, Lyle's Farm Store, Box 356, Jackson, MN 56143. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 148739TA, filed November 15, 1979. Applicant: DOORN'S TRUCKING, I-90 & Betts Rd., Mitchell, SD 57301. Representative: Norman A. Cooper, 145 W. Wisconsin Ave., Neenah, WI 54956. *Contract carrier:* irregular routes: *Fertilizer and fertilizer materials* from Sioux City, IA, Pine Bend and Winona, MN to Armour, Canistota, Emery and

Mitchell, SD for the accounts of Farmers Union Coop Assoc and Shanard, Inc. for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Shanard, Inc., N. Riverside Rd., Mitchell, SD 57301; Farmers Union Coop Assoc., 1510 W. Havens, P.O. Box 1286, Mitchell, SD 57301. Send protests to: J. L. Hammond, DS, ICC, Room 455, Federal Bldg., Pierre, SD 57501.

MC 148938TA, filed November 14, 1979. Applicant: H. YORK d.b.a. RELIABLE PRODUCT TRANSPORT, 119 Maresco Dr., N.E., Dalton, GA 30720. Representative: M. C. Ellis, c/o Chattanooga Freight Bureau, Inc., 1001 Market St., Chattanooga, TN 37402. *Contract carrier:* Irregular routes: (1) *Floor covering and related articles*; (2) *materials and supplies used in the manufacture and distribution of floor coverings and related articles; except commodities in bulk, in tank vehicles,* (A) between the facilities of Carpet Shippers Association, Inc., at or near Dalton, GA, on the one hand, and, on the other hand, points and places in the states of IL, IN, MI, and OH; (B) between the facilities of Carpet Shippers' Association, Inc., at or near Dalton, GA, on the one hand, and, on the other hand, points and places in the counties of Bartow, Catoosa, Chatooga, Dade, Floyd, Gilmer, Gordon, Murray, Walker, and Whitfield, GA, restricted to transportation having prior or subsequent transportation; transportation performed under a continuing contract or contracts, with Carpet Shippers' Association, Inc., for 180 days. Supporting shipper(s): Carpet Shippers' Association, Inc., 119 Maresco Dr., N.E., Dalton, GA 30720. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Room 300, Atlanta, GA 30309.

MC 148939TA, filed November 13, 1979. Applicant: AREA WHOLESALE TIRE CO., INC., P.O. Box 2723, Baton Rouge, LA 70821. Representative: C. R. Potter (same address as applicant). Applicant is seeking authority to operate as a *contract carrier* over regular routes, transporting *crude synthetic rubber* from Baton Rouge, LA to Huntsville, AL via Interstate Hwys. 12, I-59, and I-65 to Huntsville, AL, for 180 days. Supporting shipper(s): Dunlop Tire & Rubber Corporation, Box 1109, Buffalo, NY 14240. Send protests to: Robert J. Kirspel, DS, ICC, T-9038 Federal Bldg., 701 Loyola Ave., New Orleans, LA 70113.

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MC 1515 (Sub-282TA), filed November 14, 1979. Applicant: GREYHOUND LINES, INC., Greyhound Tower, Phoenix, AZ 85077. Representative: Lat J. Celmins (same address as applicant). *Common,* Regular, *Passengers and their baggage, and express and newspapers in the same vehicle with passengers,* between Lincoln, NE and Grand Island, NE, serving no intermediate points: from Lincoln, NE over Interstate Hwy 80 to junction U.S. Hwy 281, then over U.S. Hwy 281 to Grand Island, NE, and return over the same route, for 180 days. An underlying ETA seeks 90 days authority. Supporting shippers: There are 5 supporting shippers. Their statements may be reviewed at the below listed field office or at Washington, D.C. Send protests to: Ronald R. Mau, District Supervisor, 2020 Federal Bldg., 230 N. 1st Ave., Phoenix, AZ 85025. Applicant does intend to tack this authority with authority it presently holds in MC-1515.

MC 2605 (Sub-12TA), filed November 1, 1979. Applicant: COMMERCIAL TRANSPORTATION INC., 2300 E. Adams Ave., Phila., PA 19124. Representative: Anthony N. Coppola (same as applicant). *Chemicals and chemical products, except in bulk,* from the facilities of FMC Corporation at Carteret, NJ and Lyndhurst, NJ, to points in OH, Chicago, IL and Detroit, MI and points within their commercial zones, for 180 days. Supporting shipper(s): FMC Corporation, 2000 Market St., Phila., PA 19103. Send protests to: ICC, Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 8535 (Sub-104TA), filed October 25, 1979. Applicant: GEORGE TRANSFER & RIGGING CO, INC., P.O. Box 500, Parkton, MD 21120. Representative: James B. Nestor (same as applicant). *Iron or steel articles* (except in dump vehicles) from Cumberland, MD to points in IL and IN, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Cumberland Steel Co., P.O. Box 28, 101 Winston St., Cumberland, MD 21502. Send protests to: ICC, Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 19945 (Sub-73TA), filed October 3, 1979. Applicant: BEHNKEN TRUCK SERVICE, INC., Route 13, New Athens, IL 62264. Representative: Joseph R. Behnken (same address as applicant). *Coal, in bulk,* from Mount Sterling, IL, to St. Louis, MO for 180 days. An underlying ETA seeks 30 days authority. Supporting shipper(s): Great American Energy Corporation, 8820 Ladue Road, St. Louis, MO. Send Protests to: Cheryl Livingston, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 30844 (Sub-670TA), filed November 7, 1979. Applicant: KROBLIN REFRIGERATED EXPRESS, INC., P.O. Box 5000, Waterloo, IA 50704. Representative: John P. Rhodes (same address as applicant). *Such materials, equipment, ingredients, and supplies as are used in the manufacturing and distribution of veterinary supplies, animal drugs and medicines, feeds, and supplemental powders, when moving in vehicles equipped for protective service,* from points in MA, NY, NJ, MD, PA, VA, WV, and Charleston, SC, to Charles City, IA, restricted to shipments destined to the facilities of Salsbury Labratories at Charles City, IA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Salsbury Laboratories, 2000 Rockford Rd., Charles City, IA 50616. Send protests: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 61825 (Sub-121TA), filed November 23, 1979. Applicant: ROY STONE TRANSFER CORPORATION, P.O. Box 385, Collinsville, VA 24078. Representative: John D. Stone (same address as applicant). *Furnaces, solar collectors, and air conditioners and parts and accessories,* from Columbus, OH to Decatur, GA, Jackson, MS, Memphis, TN and Orlando, FL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Lennox Industries, Inc., P.O. Box 400450, Dallas, TX 75240. Send protests: ICC, Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 65475 (Sub-32TA), filed November 20, 1979. Applicant: JETCO, INC., 4701 Eisenhower Ave., Alexandria, VA 22304. Representative: J. G. Dail, Jr., P.O. Box LL, McLean, VA 22101. *Iron and steel articles and materials, equipment, and supplies* used in the manufacturing of iron and steel articles, between Marietta, OH, and Marion, IL, on the one hadn, and, on the other, points in DE, IL, KY, MD, NJ, NY, NC, OH, PA, TN, VA, WV, and DC, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Pattin Manufacturing Company, P.O. Box 659, Marietta, OH 45750. Send protests: to ICC, Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Phila., PA 19106.

MC 82965 (Sub-6TA), filed October 22, 1979. Applicant: AMADOR STAGE LINES, INC., 213 13th Street, Sacramento, CA 95813. Representative: Raymond A. Greene, Jr., 100 Pine Street, Suite 2550, San Francisco, CA 94111. *Passengers and their baggage, in the same vehicle with passengers, in special operations* beginning and ending at points in Sacramento, San Joaquin, Yolo, El Dorado and Placer Counties, CA to points in Washoe, Douglas, Storey and Carson City Counties, NV, for 180 days. An underlying ETA seeks 90 days

authority. Supporting shipper(s): Arden Fairs Ticket, 1777 Arden Way, Sacramento, CA. Patterson Travel, 352 College Street, Woodland, CA 95695. Send protests: A. J. Rodriguez, 211 Main Street, Suite 500, San Francisco, CA 94105.

MC 95084 (Sub-154TA), filed November 6, 1979. Applicant: HOVE TRUCK LINE, Stanhope, IA 50246. Representative: Kenneth F. Dudley, P.O. Box 279, Ottumwa, IA, 52501. *Household washers and dryers* from Webster City and Fort Dodge, IA, to points in CA, MO, OH, PA, TN, TX, and WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Webster City Products Company, 600 Stockdale St., Webster City, IA 50595. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 105045 (Sub-131TA), filed October 18, 1979. Applicant: R. L. JEFFRIES TRUCKING CO, INC., 1020 Pennsylvania, Evansville, IN 47731. Representative: George H. Veech (same address as applicant). *Automotive wreckers and car carriers, KD and parts thereof not mounted* from the facilities of Dover Corp./Ernest Holmes Div. at or near Newbern, TN and Chattanooga, TN to all points in the United States (except Alaska and Hawaii) for 180 days. An underlying ETA seeking 90 days authority. Supporting shipper(s): Dover Corp./Ernest Homes Div., 2505 E. 43rd St., Chattanooga, TN 37407. Send protests to: Beverly J. Williams, Transportation Assistant, ICC, 429 Federal Bldg., 46 E. Ohio St., Indianapolis, IN 46204.

MC 107515 (Sub-1299TA), filed November 21, 1979. Applicant: REFRIGERATED TRANSPORT CO., INC., P.O. Box 308, Forest Park, GA 30050. Representative: Alan E. Serby, 3390 Peachtree Rd., N.E., Fifth Floor, Lenox Towers South, Atlanta, GA 30326. *Frozen potatoes and potato products* from Clark, SD to points in GA, AL, and MS for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Chef Reddy Foods Corp., Clark, SD 57225. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 107515 (Sub-1303TA), filed November 21, 1979. Applicant: REFRIGERATED TRANSPORT CO., INC., P.O. Box 308, Forest Park, GA 30050. Representative: Alan E. Serby, 3390 Peachtree Rd., N.E., Fifth Floor, Lenox Towers Atlanta, GA 30326. *Microwave ovens* from Compton, CA to Eau Claire, LaCrosse and Wausau, WI; Rochester, St. Cloud, Belgrade and the Minneapolis commercial zone, MN; and Cedar Rapids, IA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Menard, Inc., Rt. 2, Eau Claire, WI 54701. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 107515 (Sub-1304TA), filed November 30, 1979. Applicant: REFRIGERATED TRANSPORT CO., INC., P.O. Box 308, Forest Park, GA 30050. Representative: Alan E. Serby, 3390 Peachtree Rd., NE, 5th Floor, Lenox Towers South, Atlanta, GA 30326. *Magazines, parts and sections thereof,* from the facilities of U.S. News and World Report at or near Nashville, TN to Atlanta, GA; Jacksonville, FL; Houston, TX; and Dallas, TX, and points in their respective commercial zones for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): U.S. News and World Report, P.O. Box 2500, Boulder, CO 80302. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 107515 (Sub-1305TA), filed November 14, 1979. Applicant: REFRIGERATED TRANSPORT CO., INC., P.O. Box 308, Forest Park, GA 30050. Representative: Alan E. Serby, 3390 Peachtree Rd., NE, Fifth Floor, Lenox Towers South, Atlanta, GA 30326. *Plastic dispensing bottles and parts therefor* from Washington Courthouse, OH and Winona, MN to the facilities of Minnetonka, Inc. at or near San Jose, CA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Minnetonka, Inc., Jonathan Industrial Park, Chaska, MN 55318. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 107515 (Sub-1306TA), filed November 15, 1979. Applicant: REFRIGERATED TRANSPORT CO., INC., P.O. Box 308, Forest Park, GA 30050. Representative: Alan E. Serby, 3390 Peachtree Rd., NE, Fifth Floor, Lenox Towers South, Atlanta, GA 30326. *Intravenous solutions and administration sets* from Charlotte, NC to Morrow, GA; Mansfield, MA; Edison, NJ; Jessup, MD; and McKees Rocks, PA for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Travenol Laboratories, Inc., 1 Baxter Parkway, Deerfield, IL 60015. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 109154 (Sub-21TA), filed November 20, 1979. Applicant: BAYLOR TRUCKING, INC., RR #1, Milan, IN 47031. Representative: Robert W. Loser, II, 1101 Chamber of Commerce Bldg., Indianapolis, IN 46204. *Commodities as are dealt in by retail department stores* from Jersey City, NJ to Cincinnati, OH for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Shillito S, 5121 Fishwick Drive, Cincinnati, OH 45216. Send protests to: Beverly J. Williams, Transportation Assistant, ICC, 429 Federal Bldg., 46 E. Ohio Street, Indianapolis, IN 46204.

MC 109584 (Sub-203TA), filed November 13, 1979. Applicant: ARIZONA PACIFIC TANK LINES, 3980 Quebec St., P.O. Box 7240, Denver, CO 80207. Representative: Rick Barker, same address as applicant. *Liquid fertilizer solutions, in bulk, in tank vehicles,* from points in Maricopa County, AZ to points in Dona Ana and Luna Counties, NM for 180 days. Underlying ETA filed seeking 90 days authority. Supporting shipper(s): Kerley Chemical Co., 2801 W. Osborn, Phoenix, AZ 85017. Send protests to: R. Buchanan, 492 U.S. Customs House, Denver, CO 80202.

MC 111045 (Sub-181TA), filed November 14, 1979. Applicant: REDWING CARRIERS, INC., 8515 Palm River Road, P.O. Box 426, Tampa, FL 33601. Representative: L. W. Fincher, same address as applicant. *Sand,* in bulk, in tank vehicles, from Bridgman, MI to Marion, AL for 180 days. Supporting shipper(s): Cast South, Inc., Hwy 45 South, Marion, AL 36756. Send protests to: Donna M. Jones, T/A, ICC-BOp, Monterey Bldg., Room 101, 8410 N.W. 53rd Ter., Miami, FL 33157.

MC 111375 (Sub-119TA), filed November 8, 1979. Applicant: PIRKLE REFRIGERATED FREIGHT LINES, INC., P.O. Box 3358, Madison, WI 53704. Representative: Elaine Conway, 10 S. LaSalle St., Chicago, IL 60603. *Inedible beef and offal products,* from Boise, ID to Jefferson, WI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): J. R. Nylen, Ltd., Sioux City, IA. Send protests to: Gail Daugherty, TA, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 114015 (Sub-27TA), filed October 11, 1979. Applicant: HUSS, INCORPORATED, Highway 47 West, P.O. Box 666, Chase City, VA 23924. Representative: Morton E. Kiel, 2 World Trade Center, New York, NY 10048. Contract carrier-irregular routes: *Wall board, building board, insulation board, fibreboard and pulpboard,* from the facilities of United States Gypsum Company at Auburn, ME to points in AL, FL, GA, MS, NC, SC, TN, VA, and WV, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): United States Gypsum Co., 101 S. Wacker Dr., Chicago, IL 60606.

Send protests to: ICC, 101 N. 7 St., Philadelphia, PA 19106.

MC 11343 (Sub-151TA), filed October 26, 1979. Applicant: GRA-BELL TRUCK LINE, INC., A–5253 144th Avenue, Holland, MI 49423. Representative: Roger Van Wyk, A–5253 144th Avenue, Holland, MI 49423. (1) *Aluminum and/or zinc alloy ingots,* (2) *Materials, equipment and supplies* used in the manufacture, sale and distribution of commodities named in (1); from Maple Heights, OH to IL, IN, MI, and WI. Restricted to traffic originating at the named origin and destined to the named destination. For 180 days. Supporting shipper(s): Aluminum Smelting & Refining Co., Inc. Certified Alloys Company, 5463 Dunham road, Maple Heights, OH 44137. Send protests to: C. R. Flemming, D/S, I.C.C., 300 E. Michigan Avenue, Lansing, MI 48933.

MC 114284 (Sub-85TA), filed November 5, 1979. Applicant: FOX-SMYTHE TRANSPORTATION CO., P.O. Box 82307, 1700 S. Portland, Oklahoma City, OK 73148. Representative: M. W. Thompson (same address as applicant). *Meats, meat products, meat by-products and articles distributed by meat packinghouses, as described in Sections A, B, and C of Appendix I to the Report in Descriptions in Motor Carrier Certificates, 61 M.C.C. 209 and 766* (except hides and commodities in bulk), from the facilities utilized by Wilson Foods Corp., at Cedar Rapids, IA, to points in NM, OK, & TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Wilson Foods Corporation, 4545 Lincoln Blvd., Oklahoma City, OK 73105. Send protests to: Connie Stanley, ICC, Rm. 240, 215 NW. 3rd, Oklahoma City, OK 73102.

MC 115654 (Sub-177TA), filed November 20, 1979. Applicant: TENNESSEE CARTAGE CO., INC., P.O. Box 23193, Nashville, TN 37202. Representative: Henry Seaton, 929 Pennsylvania Bldg., 425 Thirteenth St., N.W., Washington, D.C. 20004. *Such commodities as are dealt in by wholesale and retail food chains, drug stores, hospitals, and cosmetic dealers, discount and variety stores, and grocery houses (except in bulk),* from the facilities utilized by Bristol-Myers at Atlanta, GA to points in AL, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Bristol-Myers Company, 5655 Fulton Industrial Blvd., Atlanta, GA 30336. Send protests to: Glenda Kuss, TA, ICC, A–422 U.S. Court House, 801 Broadway, Nashville, TN 37203.

MC 117765 (Sub-277TA), filed November 1, 1979. Applicant: HAHN TRUCK LINE, INC., 1100 S. MacArthur, P.O., Box 75218, Oklahoma City, OK 73147. Representative: R. E. Hagan (same address as applicant). *Pitch, lignin, dry, in bags,* from Appleton, WI, to LA and TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Baker Chemicals, Inc., 2801 Soute Post Oak Road, Suite 258, Houston, TX 77056. Send protests to: Connie Stanley, ICC, Rm. 240, 215 NW 3rd, Oklahoma City, OK 73102.

MC 118745 (Sub-25TA), filed November 2, 1979. Applicant: JOHN PFROMMER, INC., P.O. Box 307, Douglassville, PA 19518. Representative: Theodore Polydoroff, Suite 301, 1307 Dolley Madison Blvd., McLean, VA 22101. *Contract carrier:* Irregular routes: (1) *Petroleum coke,* in bulk, in dump vehicles, from Paulsboro, NJ to Hagerstown, MD, under a continuing contract with International Minerals & Chemical Corp., and (2) *steel turnings,* from Hagerstown, MD, to Pottstown, PA, under a continuing contract with Meyer Pollock Steel Corporation, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Meyer Pollock Steel Corporation, P.O. Box 759, Pottstown, PA 19464; International Minerals & Chemical Corp., 421 E. Hawley St., Mundelein, IL 60060. Send protests to: I.C.C., Fed. Res. Bank Bldg., 101 N. 7th St., Rm. 620, Philadelphia, PA 19106.

MC 127524 (Sub-24TA), filed November 23, 1979. Applicant: QUADREL BROS. TRUCKING CO., INC., 1603 Hart Street, Rahway, NJ 07065. Representative: David L. Middleton, 1603 Hart Street, Rahway, NJ 07065. Petrolatum in bulk from Petrolia, PA to Elizabeth, NJ for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Block Drug Company, 257 Cornelison Avenue, Jersey City, NJ 07302. Send protests to: Robert E. Johnston, District Supervisor, Interstate Commerce Commission, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 129994 (Sub-41TA), filed November 2, 1979. Applicant: RAY BETHERS TRUCKING, INC., 176 West Central Avenue, Murray, UT 84107. Representative: Marilyn McNeil (same address as applicant). *Gypsum board paper* from Denver, CO to Empire, NV and Santa Fe Springs, CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): United States Gypsum Co., Glendale, CA. Send protests to: L. D. Helfer, DS, ICC, 5301 Federal Bldg., Salt Lake City, UT 84138.

MC 133095 (Sub-285TA), filed November 21, 1979. Applicant: TEXAS CONTINENTAL EXPRESS, INC., P.O. Box 434, Euless, Texas 76039. Representative: Ron Duncan (address same as carrier). *Meat, meat products, meat by-products, and articles distributed by meat packing houses (except hides and commodities in bulk)* from the plantsite of Vernon Calhoun Packing Company, at or near Palestine, TX to points in the United States (except Alaska, Hawaii, Idaho, Montana, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming) for 180 days. Supporting shipper(s): Vernon Calhoun Packing Co., P.O. Box 709, Palestine, TX 75801. Send protests to: Opal M. Jones, TCS, ICC, 9A27 Federal Bldg., 819 Taylor St., Fort Worth, TX 76102.

MC 134775 (Sub-16TA), filed September 4, 1979. Applicant: GUNTER BROTHERS, INC., 19060 Frager Road, Kent, WA 98055. Representative: Henry C. Winters, 525 Evergreen Building, Renton, WA 98055. *Contract carrier:* irregular routes: *Building materials and supplies,* from City of Industry, Huntington Park, La Mirada, Milpitas, Montebello, Monrovia, Oakland, and Santa Fe Springs, CA to Kennewick, Seattle and Yakima, WA, for the account of T & A Supply Company of Seattle, WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): T & A Supply Company, 1105 Westlake Avenue N., Seattle, WA 98109. Send protests to: Shirley M. Holmes, T/A, ICC, 858 Federal Building, Seattle, WA 98174.

MC 135185 (Sub-42TA), filed November 14, 1979. Applicant: COLUMBINE CARRIERS, INC., P.O. Box 15246, 1720 East Garry Ave., Santa Ana, CA 92705. Representative: Charles J. Kimball, 350 Capitol; Life Center, 1600 Sherman Street, Denver, Colorado 80203. *Contract;* Irregular; *Razors and razor blades, toilet articles and toilet preparations, pens and markers, shaving cream, stationery and products, cigarette lighters, cleaning compounds and pads, hair curlers, hair spray, shampoo, sponges, fire extinguishers, electrical appliances, deodorants, dispensers, sound warning devices, other commodities manufactured by manufacturters of the above described commodities, display racks, stands and cabinets, and materials, equipment and supplies (except in bulk) used in the manufacture and distribution of the commodities named above,* (1) from the facilities of the Gillette Company at or near Andover, Massachusetts to points in Indiana and (2) from the facilities of the Gillette Company, at or near St. Paul, MN, to points in IN, points in IL located on and north of U.S. Highway 6, and Atlanta, GA and points in its

commercial zone, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): The Gillette Company, Manager—Corporate Transportation, 43rd Floor, Prudential Tower, Boston, MA 02109. Send protests to: Irene Carlos, TA, ICC, Room 1321, Federal Building, 300 North Los Angeles Street, Los Angeles, CA 90012.

MC 135195 (Sub-4TA), filed October 23, 1979. Applicant: STOVER AIR CARGO, INCORPORATED, 3830 Wisman Lane, Quincy, IL 62301. Representative: Leonard R. Kofkin, 39 South LaSalle Street, Chicago, IL 60603. *General Commodities (except commodities in bulk, those of unusual value, Classes A and B Explosives, Household Goods as defined by the Commission),* between points in Cedar, Clinton, Des Moines, Henry, Jefferson, Johnson, Lee, Linn, Louisa, Muscantine, Scott, Wapello and Washington counties, IA: Adams, Cook, DuPage, Hancock, Henderson, Henry, Knox, McDonough, Mercer, Peoria, Pike, Rock Island, Tazewell, Warren, Whiteside and Woodford counties, IL: Adair, Clark, Knox, Lincoln, Lewis, Marion, Monroe, Pike, Ralls, St. Louis and Shelby counties, MO; and St. Louis, MO. Restricted to the transportation of shipments having an immediately prior or subsequent movement by air for 180 days. An underlying ETA seeks 30 days authority. Supporting shipper(s): There are 36 supporting shippers. Their applications can be reviewed at the address below or headquarters. Send protests to: Cheryl Livingston, TA, ICC, 219 S. Dearborn, Room 1386, Chicago, IL 60604.

MC 135705 (Sub-13TA), filed October 30, 1979. Applicant: MELROSE TRUCKING CO., INC., 2671 So. Robertson Road, Casper, WY 82601. Representative: Kim Milrose (same address as applicant). *Cement,* from Pennington County, SD to points in CO, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Flatiron Materials Company, 1005 Riverside Drive, Fort Collins, CO 80521; Loveland Ready Mix, Inc., Box 299, Loveland, CO 80537. Send protests to: District Supervisor Paul A. Naughton, Rm. 105 Federal Bldg. & Crt. House, 111 South Wolcott, Casper, WY 82601.

MC 135725 (Sub-21TA), filed November 5, 1979. Applicant: FRY TRUCKING, INC., 507 W. 5th St., Wilton, IA 52778. Representative: Kenneth F. Dudley, P.O. Box 279, Ottumwa, IA 52501. *Feed ingredients* from Cedar Rapids, IA, to points in CA, KY, NC, SC, and TX, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Diamond V Mills, Inc., 426 G Avenue, N.W., Cedar Rapids, IA 52405. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 138054 (Sub-35TA), filed September 24, 1979. Applicant: CONDOR CONTRACT CARRIERS, INC., 656 Wooster Street, Lodi, OH 44254. Representative: Bradford E. Kistler, P.O. Box 82028, Lincoln, NE 68501. *Contract; Irregular: Materials, equipment and supplies* used in the installation of floor coverings (except commodities in bulk), from the facilities of Adhesive Industries Mfg. Company at or near Dallas, TX, to points in the United States located in and east of NM, CO, WY and MT, under a continuing contract(s) with Adhesive Industries Mfg. Company, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Adhesive Industries Mfg. Company, 13927 East 166th Street, Cerritos, CA 90701. Send protests to: I.C.C. Fed. Res. Bank Bldg., 101 N. 7th St., Phila., PA 19106, Room 620.

MC 138875 (Sub-253TA), filed November 19, 1979. Applicant: SHOEMAKER TRUCKING COMPANY, 11900 Franklin Road, Boise, ID 83705. Representative: F. L. Sigloh (same as above). *Cans,* from Walla Walla, WA to Mason, MI, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Continental Can Co., 10200 No. Burgard St., Portland, OR 97203. Send protests to: Barney L. Hardin, D/S, ICC, Suite 110, 1471 Shoreline Dr., Boise, ID 83702.

MC 139555 (Sub-12TA), filed November 7, 1979. Applicant: MODULAR TRANSPORTATION CO., P.O. Box 1822, Grand Rapids, MI 49501. Representative: William D. Parsley, 1200 Bank of Lansing Building, Lansing, MI 48933. *Gypsum, gypsum products, plaster board joint systems and building materials, and materials, equipment and supplies* used in the manufacture, distribution and installation of gypsum, gypsum products, plasterboard joint systems and building materials, except commodities in bulk in tank vehicles; between the facilities of ProKo Industries at or near Cambridge City, IN, on the one hand, and on the other, points in IN, OH, IL and MI for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Grand Rapids Gypsum, P.O. Box 2475, Grand Rapids, MI 49502. Send protests to: C. R. Flemming, D/S, I.C.C., 300 E. Michigan Avenue, Lansing, MI 48933.

MC 141675 (Sub-7TA), filed November 19, 1979. Applicant: ECONOMY TRUCKING SERVICE CORP., 1079 West Side Avenue, Jersey City, NJ 07306. Representative: Arthur Liberstein, 888 Seventh Avenue, New York, NY 10019. Contract carrier, irregular routes for 180 days. Such commodities as are dealt in by department stores, and supplies and equipment used in the conduct of such business, except commodities in bulk, between points in the New York, NY commercial zone, on the one hand, and on the other, Shreveport and Baton Rouge, LA, under continuing contracts with Selber Brothers, Inc. and Goudchaux's, Inc. An underlying ETA seeks 90 days authority. Supporting shipper(s): Goudchaux's, 1500 Main Street, Baton Rouge, LA 70821, Selber Bros. Inc., 601 Milam, Shreveport, LA 71101. Send protests to: Robert E. Johnston, DS, ICC, 744 Broad Street, Room 522, Newark, NJ 07102.

MC 142545 (Sub-4TA), filed August 27, 1979. Applicant: DICK TAZER TRUCKING, INC., 1635 N.W. Mall, Issaquah, WA 98027. Representative: Henry C. Winters, 525 Evergreen Building, Renton, WA 98055. *Contract carrier:* irregular routes: *Frozen foods,* from points in CA, OR and WA to points in Phoenix, AZ commercial zone under contract with Miss Muffet Foods, Inc., of Seattle, WA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Miss Muffet Foods, Inc., 500 Wall Street, Suite 410, Seattle, WA 98121. Send protests to: Shirley M. Holmes, T/A, ICC, 858 Federal Building, Seattle, WA 98174.

MC 142715 (Sub-76TA), filed November 8, 1979. Applicant: LENERTZ, INC., P.O. Box 479, South St. Paul, MN 55075. Representative: K. O. Petrick (Same as Applicant). *Meats, meat products and meat by-products and articles distributed by meat packinghouses, as described in Sections A and C of Appendix I to the report in Descriptions in Motor Carrier Certificates, 61 M.C.C. 209 and 777 (except hides and commodities in bulk, in tank vehicles),* from Spencer, Iowa, to points in AL, CT, DE, DC, GA, MD, MA, ME, FL, NH, NJ, NY, NC, PA, RI, SC, VT, VA, and WV for 180 days. Restricted to traffic originating at the facilities of Spencer Foods, Inc., Spencer, IA, and destined to points in the named states. An underlying ETA seeks 90 days authority. Supporting shipper(s): Spencer Foods, Inc., Corp., Traffic Mgr., Box 544, Schuyler, NE 68661. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Minneapolis, MN 55401.

MC 143775 (Sub-124TA), filed November 14, 1979. Applicant: PAUL YATES, INC., 6601 W. Orangewood, Glendale, AZ 85301. Representative: Michael R. Burke, (Same Address as

Applicant). *Wheat germ meal and grain flour,* from Monticello, IL, Michigan City, IN and Carthage, MO to New York City, NY, Philadelphia, PA and Portland, OR and points in their respective commercial zones, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper: Nabisco, Inc., E. Hanover, NJ 07936. Send protests to: Ronald R. Mau, District Supervisor, 2020 Federal Bldg., 230 N. 1st Ave., Phoenix, AZ 85025.

MC 144315 (Sub-6TA), filed August 21, 1979. Applicant: FORT CITY LEASING, INC., 602 20th Street North, Lewiston, ID 83501. Representative: Boyd Hartman, 10655 N.E. 4th St., P.O. Box 3641, Bellevue, WA 98009. *Lumber and lumber products,* from points in Benneway, Bonner, Boundary, ID; Kootenia, Latah, Lewis and Nex Perce Counties, ID; and Asotin, Spokane and Stevens Counties, WA to points in WY, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Bennett Lumber Company, P.O. Box 49, Princeton, ID 83857 Clearwater Forest Industries, P.O. Box 96, Kooskia, ID 83539 Wholesale Industries Inc., Rt #1, Box 250B, Portland, OR 97231. Send protests to: Shirley M. Holmes, T/A, ICC, 858 Federal Building, Seattle, WA 98174.

MC 144765 (Sub-2TA), filed October 11, 1979. Applicant: WATERVILLE-CASCADE TRUCKING, INC., P.O. Box 1686, Wenatchee, WA 98801. Representative: Robert G. Gleason, 1127 10th East, Seattle, WA 98102. *Contract carrier;* irregular routes; *Packaged petroleum products (lubricating oils and greases in barrels, cans, pails, etc.),* from St. Louis, MO to Twin Falls, ID, Portland, OR, Moses Lake, WA and Fresno, CA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Schaeffer Mfg. Co., 102 Barton Street, St. Louis, MO 63104. Send protests to: Shirley M. Holmes, T/A, ICC, 858 Federal Building, Seattle, WA 98174.

MC 145015 (Sub-2TA), filed November 2, 1979. Applicant: P.M.E., ltd., Box 181, Group 261, R.R. 2, Winnipeg, Manitoba, Canada R3C 2E6. Representative: Gene P. Johnson, P.O. Box 2471, Fargo, ND 58108. *Contract carrier:* irregular routes: *Used railroad ties,* from the ports of entry on the International Boundary Line between the United States and Canada located in MN and ND, to points in AZ and CA, for the account of Altacon Traders, Ltd., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Altacon Traders, Ltd., 8720 101st Street, Edmonton, Alberta, Canada. Send protests to: H. E. Farsdale, DS, ICC, Room 268 Fed. Bldg. & U.S. Post Office, 657 2nd Avenue North, Fargo, ND 58102.

MC 145465 (Sub-4TA), filed October 24, 1979. Applicant: GURN ENTERPRISES, INC., Route 6, Box 8, Allegan, MI 49010. Representative: Dixie C. Newhouse, 1329 Pennsylvania Ave, P.O. Box 1417, Hagerstown, MD 21740. *Contract Carrier:* Irregular Routes: (1) *Clothing and wearing apparel and component parts thereof,* and (2) *materials, supplies, equipment, machinery and mahinery parts and accessories* used in the manufacture, distribution, packaging and sale of the commodities set forth in (1) above; between points in SD, MN, WI, IN, IL, MI, PA, KY, MO, AR, GA, FL, NC, SC, LA, TN, VA, WV, DC, DE, ME, MD, NH, RI, VT, CT, OH, IA, AL, MS, NY, NJ and MA. For 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): H. L. Friedlen & Company, 2711 West Howard Street, Chicago, IL 60606. Send protests to: C. R. Flemming, D/S, I.C.C., 300 E. Michigan Ave., Lansing, MI 48933.

MC 145825 (Sub-1TA), filed November 19, 1979. Applicant: MILLER TRANSPORTS, INC., P.O. Box 161, Pryor, OK 75361. Representative: Larry D. Henry, 1606 First National Bank Building, Tulsa, OK 74103. *Contract* Carrier: *Irregular* routes: *Anhydrous ammonia and solution fertilizers,* (in bulk), and *dry fertilizers,* (in bulk and in containers), from the facilities of Oklahoma-Kansas Grain Corp., located at or near Port of Catoosa, OK, to points in TX, KS, CO, MO, & AR, for 180 days. Supporting shipper(s): Oklahoma Kansas Grain Corp., Box N, Catoosa, OK 74015. Send protests to: Connie Stanley, ICC, Rm. 240, 215 N.W. 3rd, Oklahoma City, OK 73102.

MC 145895 (Sub-5TA), filed November 5, 1979. Applicant: STATE TRANSPORTATION, INC., P.O. Box 1349, Portsmouth, NH 03301. Representative: Robert G. Parks, 20 Walnut St., Suite 101, Wellesley Hills, MA 02181. *Contract carrier:* irregular routes: *(a) Paper and paper products, and (2) equipment, material and supplies used in the manufacturer and distribution of the commodities named in (1) above,* between the facilities of Scott Paper Company in ME, MA, and NY, on the one hand, and, on the other, points in CT, ME, NH, NY, RI, and VT, for 180 days. Supporting shipper(s): Scott Paper Company, Walter E. Eichler, Transportation Project Manager, Scott Plaza, Philadelphia, PA 19113. Send protests to: Ross J. Seymour, DS, ICC, Rm. 3, 6 Loudon Rd., Concord, NH 03301.

MC 145904 (Sub-24TA), filed October 11, 1979. Applicant: SOUTHWEST LEASING, INC., P.O. Box 152, Waterloo, IA 50704. Representative: Jack H. Blanshan, Suite 200, 205 West Touhy Ave., Park Ridge, IL 60068. *Such commodities as are dealt in by wholesale and retail grocery stores (except commodities in bulk)* from the facilities of Hunt-Wesson Foods, Inc. at Chicago, IL, and points in its commercial zone to Cedar Falls, Cedar Rapids, Clinton, Davenport, and Marshalltown, IA, and points in their commercial zones, for 180 days. An underlying ETA seeks 90 days authority. Supporing shipper(s): Hunt-Wesson Foods, Inc., P.O. Box 127, Rossford, OH, 43460. Send protests to: Herbert W. Allen, DS, ICC, 518 Federal Bldg., Des Moines, IA 50309.

MC 145955 (Sub 1TA), filed November 1, 1979. Applicant: CENTRAL TRUCK SERVICE, INC., 4440 Buckingham Avenue, Omaha, NE 68107. Representative: Arlyn L. Westergren, Westergren & Hauptman, Suite 106, 7101 Mercy Road, Omaha, NE 68106. *Electrical appliances and accessories* from Franklin Park, IL to Sioux City, Des Moines, and Davenport, IA; Omaha, NE; Topeka, Wichita, and Kansas City, KS; Kansas City, MO and their commercial zones for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Quasar Company, Mike Pytel, Manager of Domestic Traffic Service, 9401 West Grand Avenue, Franklin Park IL 60131. Send protests to: D/S Carroll Russell, ICC, Suite 620, 110 North 14th St., Omaha, NE 68102.

MC 146465 (Sub-6TA), filed November 15, 1979. Applicant: LAWRENCE PILGRIM, d.b.a. PILGRIM TRUCKING CO., P.O. Box 77, Cleveland, GA 30528. Representative: Jeffrey Kohlman, Suite 508, 1447 Peachtree St., N.E., Atlanta, GA 30309. *Lumber* from the facilities of Woodkraft, Wood Products Division of Georgia Kraft Co. at or near Madison, GA to points in the US in and east of TX, OK, KS, MI, IA, and WI for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Woodkraft, Wood Products Division of Georgia Kraft Co., P.O. Box 2487, Peachtree City, GA 30269. Send protests to: Sara K. Davis, ICC, 1252 W. Peachtree St., N.W., Rm. 300, Atlanta, GA 30309.

MC 146595 (Sub-3TA), filed November 8, 1979. Applicant: SELCO CORPORATION, P.O. Box 628, Provo, UT 84601. Representative: Daniel O. Hands, Attorney at Law, Suite 200, 205 West Touhy Avenue, Park Ridge, IL 60068. *Such commodities as are dealt in by agricultural supply houses* (except commodities in bulk), from the facilities of Custom Services, Inc. at Carson City, NV to points in the United States

(except AK and HI), restricted to the transportation of traffic originating at the named origin, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Custom Services, Inc., 6373 Highway 50 East, Carson City, NV 89701. Send protests to: L. D. Helfer, DS, ICC, 5301 Federal Bldg., Salt Lake City, UT 84138.

MC 146724 (Sub-4TA), filed October 22, 1979. Applicant: DEAN RAPPLEYE, INC., P.O. Box 204, West Jordan, UT 84084. Representative: Jack H. Blanshan, Attorney at Law, Suite 200, 205 West Touhy Avenue, Park Ridge, IL 60068. *Paper, paper products and plastic bags* (except in bulk), from ports of entry located on the International Boundary between Canada and the United States located in ID, MT and WA to Bakersfield, Los Angeles, San Francisco, San Jose, and Stockton, CA, Portland, OR and Seattle and Vancouver, WA and points in the Commercial Zones of the respectively named cities, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Bonar & Bemis, Ltd., 5615 44th Street S.E., Calgary, Alberta, Canada T2H2J1. Send protests to: L. D. Helfer, DS, ICC, 5301 Federal Bldg., Salt Lake City, UT 84138.

MC 147315 (Sub-1TA), filed November 13, 1979. Applicant: TRIWAYS, INC., 2455 E. 27th Street, Los Angeles, CA 90058. Representative: William Davidson, 2455 East 27th St., Los Angeles, CA 90058. *CONTRACT:* Irregular: *Cartoned kitchen cabinets and related hardware* from Longview, Washington on the one hand and on the other hand points in California, Nevada and Arizona, for 180 days. An underlying ETA seeks up to 90 days operating authority. Supporting shipper(s): Sears, Roebuck & Co., P.O. Box 3021, Terminal Annex, Los Angeles, CA 90051. Send protests to: Irene Carlos, T/A I.C.C., 300 N. Los Angeles St., Rm. 1321, Los Angeles, CA 90012.

MC 147585 (Sub-3TA), filed November 14, 1979. Applicant: DICK WELLER, INC., Shoham Road, Post Office Box 313, Warehouse Point, CT 06088. Representative: Thomas W. Murrett, 342 North Main Street, West Hartford, CT 06117. *Common carrier:* irregular routes: *steel coils,* from Pittsburgh, Allentown and McKeesport, Pennsylvania and Canfield and Masay, Ohio, to the facilities of the Wiremold Company in Rocky Hill and West Hartford, Connecticut, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Wiremold Company, Woodlawn Street, West Hartford, CT 06110. Send protests to: J. E. Perry, Jr., District Supervisor, Interstate Commerce Commission, 135 High Street, Hartford, CT 06103.

MC 148235 (Sub-1TA), filed November 9, 1979. Applicant: TAYLOR AND SONS TRUCKING, 101 48th Street, SE, Kentwood, MI 49508. Representative: Norman A. Cooper, 145 W. Wisconsin Avenue, Neenah, WI 54956. *Contract Carrier;* Irregular Routes: *New Bedroom furniture;* from the Facilities of Glen Traditional, Inc. at Glen Rock, PA to points in AL, AZ, CA, CO, FL, GA, IL, IN, KS, KY, LA, MD, MI, MO, NE, NJ, NM, NV, OH, OK, TN, TX, UT, VA, WI and WY; under continuing contracts with Glen Traditional, Inc., Glen Rock, PA 17327. For 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Glen Traditional, Inc., P.O. Box 30, Glen Rock, PA 17327. Send protests to: C. R. Flemming, D/S, I.C.C., Room 201 Federal Building, 300 E. Michigan Avenue, Lansing, MI 48933.

MC 148645 (Sub-1TA), filed November 6, 1979. Applicant: R & R TRUCKING COMPANY, Route 1, Box 101B, Summerton, SC 29148. Representative: Eric Meierhoefer, Suite 423, 1511 K Street, NW, Washington, DC 20005. *Lumber, forest products, wood chips, and bark,* from Georgetown, SC to Johnson City, TN and points in SC, NC, VA and GA, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Pat Brown Lumber Company, P.O. Box 1103, Lexington, NC 27292. Send protests to: E. E. Strotheid, D/S, ICC, 866 Strom Thurmond Fed. Bldg., 1835 Assembly St., Columbia, SC 29201.

MC 148675 (Sub-1TA), filed November 13, 1979. Applicant: ED KIMBALL & SONS, 27815 E. Main Drive, Waterford, WI 53185. Representative: Stephen H. Loeb, Suite 2027, 33 N. LaSalle St., Chicago, IL 60602. *Sauerkraut products,* from Union Grove, WI to Bridgeview and Woodstock, IL, Evansville and Hammond, IN, Phoenix, AZ and Los Angeles and San Francisco, CA and points in their commercial zones, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Meeter Bros. & Co., Union Grove, WI 53182. Send protests to: John E. Ryden, DS, ICC, 517 E. Wisconsin Ave., Rm. 619, Milwaukee, WI 53202.

MC 148705 (Sub-1TA), filed November 29, 1979. Applicant: TWIN CONTINENTAL TRANSPORT CORPORATION, 5738 Olson Highway, Minneapolis, MN 55422. Representative: Robert D. Gisvold, 1000 First National Bank Building, Minneapolis, MN 55402. *Meat, meat products, meat byproducts, and articles distributed by meat packinghouses,* from points in IA and Omaha, NE, Chicago, IL, and South St. Paul, Newport, and Buffalo Lake, MN, to Jacksonville, Tampa, Riviera Reach, and Miami, FL, (Restricted to export traffic only), for 180 days. Supporting shipper(s): Weinstein International Corp., Pres., 5738 Olson Hwy, Mpls., MN 55422. Send protests to: Judith L. Olson, TA, ICC, 414 Fed. Bldg., 110 S. 4th St., Mpls, MN 55401.

MC 148715 (Sub-2TA), filed October 16, 1979. Applicant: DANIEL E. HAYNES, d.b.a. HAYNES TRUCKING CO., Route 2, Box 102, Section, AL 35771. Representative: Gerald D. Colvin, Jr., 603 Frank Nelson Building, Birmingham, AL 35203. *Contract, irregular: Store fixtures and materials, equipment, and supplies used in manufacture and distribution thereof* (except commodities in bulk in tank vehicles), between the facilities of Lozier Corp., at or near Scottsboro, AL, On the one hand, and, on the other, all points in and east of the states of TX, OK, KS, NE, SD, and ND, under continuing contract with Lozier Corp., for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): Lozier Corp., 401 Taylor Street, Scottsboro, AL 35768. Send protests to: Mabel E. Holston, T/A, ICC, Room 1616, 2121 Building, Birmingham, AL 35203.

MC 148724 (Sub-1TA), filed November 8, 1979. Applicant: BROWN EXPRESS, INC., 700 Briarwood Drive, Lake Charles, LA 70605. Representative: Charles J. Ballay, 513 Belle Chasse Hwy. North, Belle Chasse, LA 70037. *Floor covering commodities consisting of but not limited to vinyl floor covering, title flooring, carpets, hardwood floor materials* from Houston, TX to points located in the following parishes in LA: Acadia, Allen, Avoyelles, Beauregard, Evangeline, Iberia, Jefferson Davis, Lafayette, Rapides, St. Landry, St. Martin, St. Mary and Vermillion, for 180 days. Applicant has filed an underlying ETA seeking 90 days. Supporting shipper(s): Reader's Wholesale Distributors, Inc., 1201 Naylor Street, Houston, TX 77002. Send protests to: Robert J. Kirspel, DS, ICC, T-9038, Federal Bldg., 701 Loyola Ave., New Orleans, LA 70113.

MC 148735 (Sub-1TA), filed November 14, 1979. Applicant: DONALD J. SWICEGOOD, Rt. 1, Box 292, Statesville, NC 28677. Representative: Ralph McDonald, P.O. Box 2246, Raleigh, NC 27602. *Dry fertilizer and dry fertilizer materials in bag and in bulk (except in pneumatic tanks)* from Wilmington and Statesville, NC and Charleston and Chester, SC to points in NC, SC, VA, WV and that part of TN on and east of Interstate 75, for 180 days. An underlying ETA seeks 90 days authority. Supporting shipper(s): W. R. Grace & Co., Agricultural Chemicals

Group, P.O. Box 368, Wilmington, NC. Send protests to: Sheila Reece, T/A, 800 Briar Creek Rd-Rm CC516, Charlotte, NC 28205.

By the Commission.
Agatha L. Mergenovich,
*Secretary.*

[FR Doc. 80-1813 Filed 1-18-80; 8:45 am]
BILLING CODE 7035-01-M

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[Finance Docket No. 29217]

## Atchison, Topeka & Santa Fe Railway Co.—Control—Toledo, Peoria & Western Railroad Co.

Atchison, Topeka and Santa Fe Railway Company (Santa Fe), 80 East Jackson Boulevard, Chicago, IL 60604, represented by Milton E. Nelson, Jr. Assistant General Counsel, The Atchison, Topeka and Santa Fe Railway Company, 80 East Jackson Boulevard, Chicago, IL 60604, hereby give notice that on the 20th day of December, 1979, it filed with the Interstate Commerce Commission at Washington, DC, an application for authority under 49 U.S.C. 11343 for approval of acquisition of stock and control of the Toledo, Peoria and Western Railroad Company (TP&W).

Santa Fe seeks approval of its acquisition of the Pennsylvania Company's one-half interest, 45,000 shares of stock, in the TP&W, currently held in a voting trust with the Illinois National Bank of Springfield pending approval of this acquisition. Since Santa Fe already held 50 percent of the stock in TP&W prior to its agreement with Pennsylvania Company for acquisition of these shares, approval of this application would result in Santa Fe acquiring full control of the TP&W.

Santa Fe seeks approval of the ownership of all stock in the TP&W, and resulting complete control. The TP&W presently operates approximately 300 miles of trackage from Keokuk and Fort Madison, IA, on the west to Logansport, IN, on the east. TP&W is an important originating and terminating carrier in the Peoria and north central Illinois areas, as well as a bridge carrier interchanging traffic with numerous other midwestern and eastern railroads. Under Santa Fe control, TP&W would remain under its own management as a separate operating railroad continuing its own internally generated plans for operation and maintenance, working closely and cooperating with Santa Fe in a number of areas to implement efficiencies in TP&W operations and procedures.

In accordance with the Commission's regulations (49 CFR 1108.8) in Ex Parte No. 55 (Sub-No. 4), *Implementation—National Environmental Policy Act 1969,* 352 I.C.C. 451 (1976), any protests may include a statement indicating the presence or absence of any effect of the requested Commission action on the quality of the human environment. If any such effect is alleged to be present, the statement shall indicate with specific data the exact nature and degree of the anticipated impact. See *Implementation—National Environmental Policy Act, 1969, supra,* at p. 487.

Interested persons may participate formally in a proceeding by submitting written comments regarding the application. Such submissions shall indicate the proceeding designation Finance Docket No. 29217 and the original and two copies thereof shall be filed with the Secretary, Interstate Commerce Commission, Washington, DC 20424, on or before March 6, 1980. Such written comments shall include the following: the person's position, e.g., party protestant or party in support, regarding the proposed transaction; specific reasons why approval would or would not be in the public interest; and a request for oral hearing if one is desired. Additionally, interested persons who do not intend to formally participate in a proceeding but who desire to comment thereon, may file such statements and information as they may desire, subject to the filing and service requirements specified herein. Persons submitting written comments to the Commission shall, at the same time, serve copies of such written comments upon the applicant, the Secretary of Transportation and the Attorney General.

By the Commission, Chairman Gaskins, Vice Chairman Gresham, Commissioners Stafford, Clapp, Trantum, and Alexis. Chairman Gaskins did not participate.
Agatha L. Mergenovich,
*Secretary.*

[FR Doc. 80-1926 Filed 1-18-80; 8:45 am]
BILLING CODE 7035-01-M

# Sunshine Act Meetings

Federal Register
Vol. 45, No. 14
Monday, January 21, 1980

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

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### 1

[M-265; Jan. 16, 1980]

**CIVIL AERONAUTICS BOARD.**

**TIME AND DATE:** 10:30 a.m., January 21, 1980.

**PLACE:** Room 1011, 1825 Connecticut Avenue, N.W., Washington, D.C. 20428.

**SUBJECT:** International fare increases proposed by Pan American, Braniff and TWA. (BIA)

**STATUS:** Closed.

**PERSON TO CONTACT:** Phyllis T. Kaylor, the Secretary (202) 673-5068.

**SUPPLEMENTARY INFORMATION:** The Board wishes to act as soon as possible so as to allow expedited effectiveness of fare increases deemed acceptable. Staff work on the matter will not be completed before January 17, 1980. Accordingly, the following Members have voted that agency business requires that the Board meet on this item on less than seven days' notice and that no earlier annoucement of this meeting was possible:

Chairman, Marvin S. Cohen
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey
Member, Gloria Schaffer

Public disclosure, particularly to foreign governments of opinions, evaluations, and strategies discussed could seriously compromise the ability of the United States Government to achieve understanding in future rate negotiations which would be in the best interests of the United States. Accordingly, we believe that public observation of this meeting would involve matters the premature disclosure of which would be likely to significantly frustrate future action within the meaning of the exemption provided under 5 U.S.C. 552b(c)(9) and 14 CFR section 310b.5(9)(B) and that any meeting on this item should be closed:

Chairman, Marvin S. Cohen
Member, Richard J. O'Melia
Member, Elizabeth E. Bailey
Member, Gloria Schaffer

Persons Expected To Attend

Board Members.—Chairman, Marvin S. Cohen; Member, Richard J. O'Melia; Member, Elizabeth E. Bailey; and Member Gloria Schaffer.
Assistants to Board Members.—Mr. David Kirstein, Mr. James L. Deegan, Mr. Daniel M. Kasper, and Mr. Stephen H. Lachter.
Managing Director.—Mr. Cressworth Lander.
Executive Assistant to the Managing Director.—Mr. John R. Hancock.
Bureau of International Aviation.—Mr. Sanford Rederner, Mr. Douglas V. Leister, Mr. Ivars V. Mellups, Mr. Herbert P. Aswall, Mr. Vance Fort, Mr. James S. Horneman, Mr. John H. Kiser, Ms. Carolyn K. Coldren, Mr. Francis S. Murphy, and Mr. Joseph Di Bella, Jr.
Office of the General Counsel.—Mary McInnis Schuman, Mr. Peter B. Schwarzkopf, and Mr. Michael Schopf.
Bureau of Domestic Aviation.—Mr. Mark S. Kahan, Mr. Albert Halprin, Mr. Robert I. Stein, and Mr. Julien R. Schrenk.
Office of Economic Analysis.—Mr. Robert H. Frank and Mr. Robert Preece.
Bureau of Consumer Protection.—Mr. Reuben B. Robertson and Mr. John T. Golden.
Office of the Secretary.—Mrs. Phyllis T. Kaylor and Ms. Deborah A. Lee.

General Counsel Certification

I certify that this meeting may be closed to the public under 5 U.S.C. 552b(c)(9) and 14 CFR section 310b.5(9)(B) and that the meeting may be closed to public observation.

Mary McInnis Schuman,
*General Counsel.*

[S-112-80 Filed 1-17-80; 3:02 pm]
BILLING CODE 6320-01-M

### 2

**COUNCIL ON ENVIRONMENTAL QUALITY.**

**TIME AND DATE:** 11:30 a.m., Thursday, January 24, 1980.

**PLACE:** Conference Room, 722 Jackson Place, N.W., Washington, D.C. 20006.

**STATUS:** Open Meeting.

**MATTERS TO BE CONSIDERED:**

1. Old Business.
2. Briefing on status of agencies' NEPA procedures.
3. Briefing on status of the interagency task force study on Davis Power project.

**CONTACT PERSON FOR MORE INFORMATION:** John F. Shea III, (202) 395-4616.

January 15, 1980.

[S-109-80 Filed 1-16-80; 4:51 pm]
BILLING CODE 3125-01-M

### 3

**FEDERAL ENERGY REGULATORY COMMISSION.**

**TIME AND DATE:** 2:00 p.m., January 17, 1980.

**PLACE:** 825 North Capitol Street, N.E., Washington, D.C. 20426, Room 9306.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** The commission will meet in public session to be briefed by the Staff on proposed amendments to filing requirements in 18 CFR 35.13 (Package A—Docket No. RM79-64). There will be no proposals submitted to the Commission for action at this meeting.

**CONTACT PERSON FOR MORE INFORMATION:** Kenneth F. Plumb, Secretary, telephone (202) 357-8400.

January 16, 1980.

[S-108-80 Filed 1-16-80; 4:35 pm]
BILLING CODE 6450-01-M

### 4

[USITC SE-80-6]

**INTERNATIONAL TRADE COMMISSION.**

**AGENCY:**

**TIME AND DATE:** 10:00 a.m., Thursday, January 31, 1980.

**PLACE:** Room 117, 701 E Street, N.W., Washington, D.C. 20436.

**STATUS:** Open to the public.

**MATTERS TO BE CONSIDERED:**

1. Agenda.
2. Minutes.
3. Ratifications.
4. Petitions and complaints (if necessary).
5. Awards ceremonies.
6. Rulemaking on steel wire rope (Docket No. 583).
7. Post-Employment Conflict of Interest Regulstions.
8. Any items left over from previous agenda.

**CONTACT PERSON FOR MORE INFORMATION:** Kenneth R. Mason, Secretary (202) 523-0616.

[S-113-80 Filed 1-17-80; 3:10 p.m.]
BILLING CODE 7020-02-M

5

METRIC BOARD.

TIME AND DATE: 2 p.m., February 14, 1980; 8:30 a.m., February 15, 1980.

PLACE: The meeting on February 14 and 15 will be held in the Kino Room of the Del Webb's Townehouse, 100 West Clarendon Avenue, Phoenix, Arizona 85013.

STATUS: Open to the public.

MATTERS TO BE CONSIDERED:

*February 14*

Approval of agenda.
Review/Approval of Minutes—December, 1979 meeting.
State presentation of Issues. A panel of 3 State officials will bring the state views of metric coordinating activity and relationships directly to the Board.
United States Metric Board Administrative Regulations. This regulation describes the organization and functions of the agency.

*February 15*

Summary and analysis of Board Research Activity. A report by the Research Coordinating Committee that serves to inform the Board on the current activities in the Board's research program.
ICMP Policy and Relationship between the ICMP and the USMB. A discussion of policy matters that bear on the relationship between the Metric Board and the Interagency Committee for Metric Policy.
Resolution on SI usage. A request for approval of a resolution by the Standards Liaison Committee to encourage consistent usage of the SI system in the United States.
Reports. Each committee chairperson and senior staff will give a status report of activities within their jurisdiction.
Agenda items for future Board meetings.

SUPPLEMENTARY INFORMATION: Notice of a public forum to be held by the U.S. Metric Board on February 14, 1980 which will provide individuals and groups the opportunity to comment on metric conversion appears elsewhere in this issue.

CONTACT PERSON FOR MORE INFORMATION: Joan Phillips, 703–235–1933.

Louis Polk,

*Chairman, United States Metric Board.*

[S-102-80 filed 1-16-80; 3:01 pm]

BILLING CODE 6820-94-M

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NATIONAL CREDIT UNION ADMINISTRATION.

TIME AND DATE: 9:30 a.m., January 24, 1980.

PLACE: 1776 G Street NW., Washington, D.C., Seventh floor, board room.

STATUS: Open.

MATTERS TO BE CONSIDERED:

1. Review of Central Liquidity Facility Lending Rates.
2. Central Liquidity Facility issues, including: special share accounts; definition of risk assets; definition of gross income; liquid assets for on-call subscription.
3. Applications for charters, amendments to charters, bylaw amendments, mergers, conversions and insurance as may be pending at that time.

RECESS: 10:15 a.m.

TIME AND DATE: 10:30 January 24, 1980.

PLACE: 1776 G Street NW., Washington, D.C., Seventh floor, board room.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Requests from federally insured credit unions for special assistance under Section 208 of the Federal Credit Union Act in order to prevent their closing. Closed pursuant to exemption (8) and (9)(A)(ii).
2. Administrative Actions under Section 120 of the Federal Credit Union Act. Closed pursuant to exemptions (8), (9)(A)(ii), and (10).
3. Consideration of merger applications. Closed pursuant to exemptions (8), (9)(A)(ii), and (10).
4. State chartered credit union insurance applications. Closed pursuant to exemption (9)(A)(ii).
5. Monthly review of the 1980 Budget. Closed pursuant to exemption (9)(B).
6. Personnel Actions. Closed pursuant to exemptions (2) and (6).

CONTACT PERSON FOR MORE INFORMATION:

Rosemary Brady, Secretary of the Board, telephone (202) 357–1100.

[S-110-80 Filed 1-17-80; 11:41 am]

BILLING CODE 7535-01-M

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NUCLEAR REGULATORY COMMISSION.

TIME AND DATE: January 22, 1980.

PLACE: Commissioners conference room, 1717 H Street N.W., Washington, DC.

STATUS: Open/closed.

MATTERS TO BE CONSIDERED:

*Tuesday, January 22*

9:30 a.m.

1. Affirmation Session (approximately 10 minutes, public meeting) (items are tentative).
a. Export of Minor Quantities of Nuclear Material.
b. Boston Edison Petition.
c. Revision to Part 20.
d. Immediate Reporting of Significant Events at Operating Reactors.
e. Sheffield.
f. Fialka FOIA.
g. Appointment of Part-Time ASLBP Member.
h. Appointment of Part-Time ASLBP Member.

2. Discussion of Management-Organization & Internal Personnel Matters (approximately 2 hours, closed—Ex. 2 & 6).

1:30 p.m.

Discussion of Philippines Export License Applications (approximately 2 hours, public meeting).

ADDITIONAL INFORMATION: By vote of 4–0 (Commissioner Gilinsky not present) on January 15, the Commission determined pursuant to 5 U.S.C. 552b(e) (1) and § 9.107(a) of the Commission's rules that Commission business required that the affirmation of ALAB–559, held that day, be held on less than one week's notice to the public.

CONTACT PERSON FOR MORE INFORMATION:

Walter Magee (202) 634–1410.

Roger M. Tweed,

*Office of the Secretary.*

January 15, 1980.

[S-111-80 Filed 1-17-80; 2:09 pm]

BILLING CODE 7590-01-M

Federal Register

Monday
January 21, 1980

Part II

# Environmental Protection Agency

Gaseous Emission Regulations for 1984 and Later Model Year Heavy-Duty Engines

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 86

[FRL 1377-2]

# Control of Air Pollution From New Motor Vehicles and Motor Vehicle Engines; Gaseous Emission Regulations for 1984 and Later Model Year Heavy-Duty Engines

**AGENCY:** Environmental Protection Agency.

**ACTION:** Final rule.

**SUMMARY:** This rule sets forth new regulations for the control of hydrocarbon (HC), carbon monoxide (CO), and oxides of nitrogen ($NO_x$) emissions from heavy-duty gasoline-fueled and diesel engines. Certification and testing procedures have been revised, and new more stringent emission standards for hydrocarbons and carbon monoxide are prescribed. These regulations are a response to the mandate of the Clean Air Act Amendments of 1977 that HC and CO be reduced by 90 percent from unregulated (1969) gasoline engine emission levels.

The continuing failure of a number of air quality control regions to meet the ambient air quality standards prompted Congress to legislate control of several sources of urban air pollution, among them heavy-duty engines. Contributing a significant percentage of total HC, CO, and $NO_x$ emissions, heavy-duty engines provide an effective route to the control of urban emissions. We estimate that the implementation of these regulations will reduce the lifelong HC emissions from the average heavy-duty gasoline-fueled engine by one ton and CO emissions by 29 tons. Similarly, the average heavy-duty diesel engine will experience a reduction of 0.8 tons in HC. These gains translate into average urban mobile source HC and CO reductions of 17 percent and 30 percent, respectively, by the late 1990's. As a result, the average urban ambient air quality will improve some 2 percent in ozone and 7 percent in carbon monoxide.

**EFFECTIVE DATE:** January 1, 1984.

**ADDRESSES:** Material relevant to this final rule are contained in Public Docket No. OMSAPC-78-4 at the U.S. Environmental Protection Agency, Central Docket Section, Waterside Mall, Room 2903B (EPA Library), 401 M Street, S.W., Washington, D.C. 20460, (202) 755-0308. Single copies of both EPA's regulatory analysis containing environmental and economic analysis and the Summary and Analysis of Comments document can be obtained (free of charge) by request from the Director, Emission Control Technology Division, 2565 Plymouth Rd., Ann Arbor, MI 48105.

**FOR FURTHER INFORMATION CONTACT:** Mr. Chester J. France, Standards Development and Support Branch, Emission Control Technology Division, Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, Michigan 48105, Telephone: (313) 668-4338.

**SUPPLEMENTARY INFORMATION:**

## I. Background

In enacting the 1977 amendments to the Clean Air Act (CAA), Congress directed EPA to prescribe regulations for heavy-duty vehicles and engines. The Act states that, for model year 1983 and beyond, the regulations "shall contain standards which require a reduction of at least 90 percent" in hydrocarbon (HC) and carbon monoxide (CO) emissions, as measured against "baseline" emission levels from gasoline-fueled heavy-duty engines. The "baseline model year" was defined as "the model year immediately preceding the model year in which Federal standards" first applied to such a vehicle or engine; in the case of HC and CO emissions from heavy-duty engines, the baseline year is 1969.

EPA responded to this mandate by beginning in late 1977 to design and conduct a program of procurement and emission testing of 1969 engines. Simultaneously, we prepared a Notice of Proposed Rulemaking (NPRM) which appeared in the Federal Register on February 13, 1979 (44 FR 9464). The NPRM contained the proposed regulations in their entirety, with the exception that the precise numerical values representing the 90 percent reductions were not finalized. Only estimated emission values could be provided since the baseline testing was not yet complete.

The first of two related public hearings was held in Ann Arbor on May 14-15, 1979, at which time the final baseline numbers and final test report were available. The final numerical values representing the standards were very close to those estimated in the February 13, 1979 NPRM. The record remained open for comment until June 29, 1979. Because the baseline data had not been available for public comment, a second hearing was held July 16-17, 1979, again in Ann Arbor. Testimony and comments were primarily limited in this instance to the baseline testing program and its results and those portions of the February 13, 1979 proposal directly affected by the final standards. Development data and other information relating to alternative test cycles to the transient test cycle were also solicited. The second comment period ended August 17, 1979.

EPA received a large amount of input from interested parties during the two comment periods. The EPA staff has summarized and responded to the comments in a document called "Summary and Analysis of Comments", that is now available through the Central Docket Section, Public Docket No. OMSAPC-78-4 (See ADDRESSES, above). In addition, a presentation of those aspects of the NPRM which were changed in response to the comments appears later in this Preamble, under Public Participation.

## II. Components of the Package and Major Issues

This rulemaking package is a composite of a number of interrelated components which combine to form a consolidated regulatory approach. In this "comprehensive strategy", EPA is simultaneously establishing many of the requirements that are likely to be necessary for effective control of emissions from heavy-duty engines and vehicles in the near term. Thus, the package is somewhat complex. Yet EPA believes that it is far more efficient and cost effective to put into place initially all the significant requirements affecting heavy-duty vehicles and engines rather than to introduce them in a piecemeal fashion over the next few years. By providing the manufacturers with the entire regulatory scheme well in advance of the model year in which these requirements will take effect, the manufacturers can develop a comprehensive compliance strategy without concern that the rules are going to keep changing—a criticism that has been expressed with regard to regulations governing light-duty vehicles.

### *A. Emission Standards*

The new, more stringent HC and CO standards introduced here are accompanied by a $NO_x$ standard which requires a level of control approximately equal to that required currently (1979). The introduction of the $NO_x$ standard is linked to the changing of the heavy-duty test procedure, as described below under "Test Procedures." The new test procedure will be used not only for HC and CO measurements, but for $NO_x$ as well. Therefore, even though no additional $NO_x$ control is required by

these regulations,[1] it was necessary to derive a $NO_x$ standard based on the transient test that approximates equivalent stringency to that currently in place using the existing steady-state test.

The correlation between the current steady-state test procedure and the new transient procedure is very poor; direct conversion of the present "steady-state" $NO_x$ standard to a "transient" standard is not possible. We were able, however, to observe the $NO_x$ emissions from twelve 1979 heavy-duty gasoline engines and several diesels on the new test procedures. Their mean $NO_x$ level was adjusted upward by two standard deviations as a way of assuring that very few, if any, engines will have difficulty meeting the standard with 1979 $NO_x$ control technology.

The HC and CO standards were derived from a "baseline" test program. Twenty-three 1969 model year gasoline heavy-duty engines, chosen in numbers proportional to their sales fractions in the 1969 market, made up the sample; engines representing 81.5 percent of the sales were tested. Once these uncontrolled emissions had been measured on the transient test procedure, it was a straightforward matter to reduce the HC and CO numbers by 90 percent and arrive at the final standards.

The units of the standards are in the form of grams per brake horsepower-hour (g/BHP-hr). As in the case of the current heavy-duty regulations, emissions are regulated with respect to the amount of work the engine does. This practice has the effect of avoiding the penalizing of a larger, harder-working engine. The transient test emission standards prescribed by these regulations are as follows: HC:1.3 g/BHP-hr, CO:15.5 g/BHP-hr, $NO_x$:10.7 g/BHP-hr.

In conjunction with the transient standards is established an idle-test standard for gasoline engine CO emissions. A description of the idle test procedure and an explanation for its introduction may be found below in the section headed "Test Procedures". Here we will present the idle standard, which, like the transient standards, is derived from the 1969 baseline engine tests (idle emissions were measured on 19 of the 23 baseline engines). In terms of raw exhaust gas concentrations, the idle standard is 0.47 percent CO.

These regulations also require that diesel crankcase emissions be eliminated from naturally-aspirated heavy-duty diesel engines. Statutory authority for these requirements is found in § 202(a) of the amended CAA. On naturally-aspirated diesel engines, recent EPA analysis [2] shows that closing the crankcase is a cost-effective means of controlling three of the designated "criteria pollutants"—HC, $NO_x$, and particulates. Turbocharged heavy-duty diesel engines would require more expensive systems in order to protect the turbocharger from the oily and potentially harmful crankcase emissions; hence, the cost effectiveness for this type of engine is not attractive (compared to other available emission control strategies) at this time.

However, EPA anticipates that current research on the presence of nitrosamines in diesel crankcase emissions may require a reassessment of the necessity of controls on turbocharged engines. Nitrosamines are a very strong carcinogen in animals and strongly suspected to be carcinogenic in humans. Staff technical analysis [3] indicates that a control system employing a pump to bypass the turbocharger is feasible and would eliminate the loss of efficiency associated with direct ducting of emissions into the turbocharger inlet. Accordingly, EPA is postponing the finalization of crankcase control requirements for turbocharged heavy-duty diesel engines. The provisions, though, will remain in proposal status pending the completion of the nitrosamine research. Should EPA decide to pursue a final rulemaking on turbocharged engine controls, the record will be reopened and if requested, a public hearing will be held.

Finally, EPA is allowing the diesel engine manufacturers the option of delaying certification on the transient test until 1985. For the 1984 model year, certification can be accomplished either by carrying-over 1983 certification or, for new testing, by using the 13-mode steady-state procedures. If this option is exercised, the manufacturer will be required to demonstrate compliance with the applicable portions of the regulations and the following emission standards: HC:0.5 g/BHP-hr, CO:15.5 g/BHP-hr, $NO_x$:9.0 g/BHP-hr.

Formulation of these standards was based on the following considerations. Diesel carbon monoxide will be low no matter where the standard is set, so the transient test standard of 15.5 g/BHP-hr is sufficiently stringent. The $NO_x$ fraction of the current steady-state HC-plus-$NO_x$ standard is generally accepted to amount to about 9 g/BHP-hr, which will assure no significant loss of $NO_x$ control. Clearly, it is with HC control that we have the most concern. There are two reasons for the choice of California's 1983 steady-state HC standard of 0.5 g/BHP-hr. First, the manufacturers are already moving toward this goal in their engine development. Second, although we are unable to establish an acceptable correlation between the transient and 13-mode tests, we chose the California standard to minimize the loss of benefits from this one model year's production.

As discussed in more detail under Section III, "Leadtime," the option of delaying utilization of the transient test for one model year is being made available to give the diesel manufacturers the time to investigate the feasibility of modifying their present eddy-current dynamometers for transient control. (The gasoline engine manufacturers are already equipped with electric engine dynamometers, which are readily converted to transient control.) If a diesel manufacturer decides to attempt to convert its eddy-current dynamometers under the option above, it will have sufficient leadtime to establish transient control capability. This is true even if the manufacturer finds that eddy-current dynamometers are not convertible and that electric dynamometers have to be procured.

There is a real possibility that the diesel option discussed above will result in some loss in air quality benefit. This is because the replacement of the 13-mode test by the transient diesel test will be postponed. Offering this option is appropriate because the optional use of the 13-mode is limited to one year (1984); the loss of control, if any, will probably be restricted to HC emissions and providing this option may result in considerable savings to diesel manufacturers if they can convert eddy-current dynamometers to transient control.

*B. Test Procedures*

Perhaps the most prominent feature of this rulemaking is the new transient test procedure. The culmination of five years' development by EPA (and, in part, by the heavy-duty manufacturing industry), the transient test exercises the engine through a continually changing series of speed/torque conditions as emissions are sampled. The new testing and sampling requirements differ so greatly from those currently in place that the development of an entirely new set of regulations has been necessary. Another change in the nature of the test

[1] $NO_x$ regulations for the 1985 model year will be proposed soon, including a standard representing a 75 percent reduction from 1973 baseline levels.

[2] See Public Participation Section, "Diesel Crankcase Emissions Controls."

[3] See "Summary and Analysis of Comments" document, Diesel Crankcase Emissions Control Issue.

procedure is the addition of an idle test to measure CO emissions separately during idle operation.

While the transient test procedure as outlined below is a completely new procedure, requiring for the most part new test equipment, for diesels it does not represent the final test procedure expected to be used in 1985 model year testing. EPA plans to soon propose and promulgate regulations governing particulate emissions from heavy-duty diesel engines. In fact, the development of these particulate regulations has been delayed until a transient test procedure became available.

These particulate regulations will require some new equipment in addition to that required by the test procedures being promulgated today. A detailed explanation of the test procedure under consideration for particulate emissions can be found in the EPA Technical Report SDSB–79–18, "Draft Recommended Practice for Measurement of Gaseous and Particulate Emissions from Heavy-Duty Diesel Engines Under Transient Conditions." To ensure that no one would purchase equipment that could not be used after promulgation of the particulate regulation, EPA has modified the test procedure being promulgated today to be completely compatible with particulate testing. With this advance notification, all interested parties can begin to purchase transient testing equipment and use all of this equipment when particulate testing is required in the future. The promulgation of particulate regulations will only require the addition of some new equipment and no replacement of newly-purchased equipment.

The heavy-duty test procedure serves as the standard way of measuring emissions for a variety of purposes. Beyond the initial certification of prototype engines, the test procedure is used at each test point during the service accumulation program. Also, when a selective enforcement audit is conducted at a manufacturing facility, the same test will be performed on the sample engines. Production compliance audits to determine the margin by which an engine family has failed to comply with the standards is yet another application of the test procedure. Any in-use enforcement testing or emission factors testing which the Agency might direct at heavy-duty engines would make use of the standard test procedure as well. And finally, the idle-test portion of the test procedure is likely to be adopted for heavy-duty inspection and maintenance programs, and could be used to trigger the 207(b) emission performance warranty at such time as performance warranty regulations are promulgated (Warranty Regulations were proposed on April 20, 1979 (44 FR 23784)).

EPA is convinced that the new transient test procedure will greatly improve the quality of emissions measurements for heavy-duty engines. It would be desirable to test heavy-duty engines in their chassis using a chassis dynamometer test similar to that currently used for light-duty vehicles. However, due to the size and variety of heavy-duty vehicles, such a test procedure could be quite complex and expensive. Hence, EPA has pursued the engine-only test procedures.

The engine alone will be exercised, and in a manner which as nearly as possible matches on-the-road exercise. Currently, modal engine tests are used which subject the engine to a sequence of steady-state (i.e., unchanging) speed and torque combinations which have little relationship to actual patterns of use. The inaccuracies of a steady-state test become even more serious as stricter standards are applied to heavy-duty engines. It has been shown that emission results from catalyst-equipped gasoline engines, for example, are appreciably different when measured on the two procedures, with the steady-state test giving the impression of more efficient emission control. In fact, EPA has demonstrated in its own testing that it is possible to design a catalyst system that appears to reduce engine emissions to negligible levels on the steady-state test and at the same time provide little or no emission reductions on the transient test. Since the modal tests sample only selected operating modes, they are easier to defeat than the transient test; the motivation to design toward clean test results rather than clean real-world operation increases as the standards become stiffer. EPA sees the transient test as a logical remedy to each of these concerns because of its close approximation of in-use emission performance.

Separate transient test procedures exist for gasoline-fueled engines and for diesel engines. Since the required reductions in HC and CO are so large for gaoline engines, we believe the transient test will clearly be necessary to assure that the 90 percent reductions will actually be achieved by the engines on the road. For diesels, the need for a transient test is based primarily on HC control; their CO levels are already near the 90 percent-reduction standards. Nevertheless, the lifetime reduction in HC emissions from the average heavy-duty diesel that will result from using the transient test will be nearly as great as that from the average gasoline engine and therefore use of the transient test for diesel engines is certainly appropriate (see Effect on the Environment). Additionally, transient testing will be required to control heavy-duty diesel particulate emissions. These regulations are currently being prepared by EPA in response to Congressional mandate and are expected to be proposed in mid-1980 applicable for model year 1985. Similarly, regulations are planned which would require $NO_x$ reductions in heavy-duty engines beginning in 1985. The mandated 75 percent reduction will be difficult for the manufacturers of diesels, and the incentive to design around the test procedure will be great. Transient testing will be needed to assure that the reductions mandated by Congress are actually achieved. Early conversion to transient systems will facilitate the manufacturers' development work toward the $NO_x$ regulations.

Unlike the gasoline engine manufacturers, which already have much of the equipment necessary for transient testing, diesel manufacturers may have to completely replace their present equipment. Primarily for this reason EPA is providing the option for the diesel manufacturers to delay certification on the transient procedure until the 1985 model year. If manufacturers do use this option, some 1984 engines may have higher emissions since the steady-state test is easier to pass. But more time would be available to get the transient systems operating and/or to evaluate whether the present "absorption" eddy-current dynamometers can be used for accurate transient control. For the 1985 model year, however, diesels will have to meet the HC, CO, and new $NO_x$ standards on a transient test.

Transient engine tests are performed in the laboratory using a dynamometer, a computer-based controller, and an emissions sampling apparatus. The dynamometer is simply an electric motor which is linked to the drive shaft of the engine (with the transmission removed) to either absorb the engine's energy and apply a load or to drive the engine. ("Absorption" eddy-current dynamometers, which do not have the capability for driving the engine, cannot simulate engine braking, or "motoring." However, one manufacturer has suggested a way of modifying these dynamometers so that they might be used for transient testing. (See Public Participation, Test Procedures.)) By properly controlling the dynamometer, the engine can be subjected to

conditions which simulate the operation of an engine in a vehicle on the road. Thus, engine speed and torque behavior which was actually measured on in-use trucks has been translated into the sequence of computer commands which in turn controls the engine.

It is the transient-control computer that "drives" the dynamometer through the cycle in a repeatable manner. By sensing and recording the behavior of the engine, the computer allows the operator to determine the actual work done during the run (in brake horsepower-hours (BHP-hrs)) and how closely the engine followed the cycle.

The exhaust flow of an engine is ducted through a machine called a constant-volume sampler (CVS), from which a small proportional sample is withdrawn. This method of sampling is dictated by the varying exhaust flow which accompanies transient operation. (Under the current steady-state procedures, the total mass of the emissions can be determined from direct exhaust gas analysis). To compute mass emissions during transient testing, the total volume of sample, diluted in the CVS, must be measured. In diesel testing, the analysis of the sample to determine the pollutant concentrations may be performed in the following ways. To avoid the condensation of the heavy hydrocarbons, HC is measured by conducting a separate sample in a heated line to the analyzer where it is measured continuously. For $NO_x$ emissions, two sampling options exist. The method proposed in the NPRM is the collection of the sample in a plastic bag for analysis. If this option is chosen, CO and $CO_2$ are sampled in the same manner. However, it appears that continuous dilute analysis of a heated sample may result in more accurate $NO_x$ measurement as well. As EPA investigates this method (with an eye to possibly requiring it in the 1985 $NO_x$ regulations), we are offering the option of pursuing such a continuous dilute $NO_x$ measurement approach. In this case, CO and $CO_2$ may be sampled using either method. In gasoline testing, on the other hand, continuous sampling yields little additional accuracy; the regulations specify bag analysis of all pollutants.

Hydrocarbon emissions are measured using a flame ionization detector (FID); CO and $CO_2$ using a non-dispersive infrared analyzer; and $NO_x$ using a chemiluminescence analyzer. The resulting pollutant concentrations found in the sample are applied to the total diluted flow to yield, after conversion, the mass emissions during the test.

The gasoline and diesel test cycles (Appendix I) are composed of second-by-second sequences of engine speed/torque pairs, with values given in normalized (percent of maximum) form. These cycles were computer-generated from a large data base of urban heavy-duty engine operation. Using as a sample 88 trucks and buses in Los Angeles and New York, EPA gathered actual in-use operational data. The information was separated by fuel type, city, and road type and reduced by computer to 5-minute schedules. EPA linked the short cycles together, arriving at the two published test cycles.

The normalized torque values in the test cycles appear in terms of a percentage of the engine's maximum torque at the current speed. The first step in conducting a test is to determine the maximum torque at each speed, a process called "mapping"; actual speed and torque numbers can then be substituted for the normalized values. Once the engine has been mapped, the computer is ready to run the engine. However, the test is conducted in two halves, a cold-start portion and a hot-start portion. The engine oil must have returned to ambient temperatures for the cold-start portion to begin. This means that the engine must be cooled, either through resting (soaking) for several hours or through a "forced cool-down" process allowed by the regulations to accelerate engine cooling.

Gasoline engine and diesel test runs are conducted in the same way. The standard-equipment starter is used to start the "cold" engine, which is then allowed to idle freely for approximately 15 seconds until the actual cycle begins. Approximately twenty minutes of transient operation follows. Separating this cold-start segment from its identical hot-start counterpart is a twenty-minute soak period.

Emissions during the transient test are directly analyzed (diesels) or bagged and analyzed (gasoline engines) separately for the cold-start and the hot-start segments. It is possible then to weigh the emissions according to the number of cold-starts vs. hot-starts that are found to occur in the field (a cold-start to hot-start ratio of 1:7 is used for both gasoline and diesel tests). Accordingly, the mass of a pollutant emitted over each of the two cycle segments and the work done by the engine during the two segments are calculated; the hot/cold weighting is applied to the resulting grams and the BHP-hrs; and a final calculation yields a weighted g/BHP-hr emission result for that pollutant.

If an idle test is to be performed, it occurs after the cold-start/hot soak/hot-start transient test sequence. The detailed procedure for conducting an idle test may be found in Subpart P of the regulations; a brief description appears here.

The idle test procedure is much less complex than the transient procedure and requires considerably less specialized sampling and analytical equipment. The test is conducted at normal operating temperatures and emission measurements can be made directly without dilution. These distinct aspects of the design of idle test will allow its straightforward application to in-use testing programs. Section 207(b) of the Act requires the development of a short test that is correlatable with the certification test to precede the promulgation of heavy-duty emission warranty regulations. Since a short idle test is now incorporated into the standard emission test sequence, an application of the idle test in the field correlates by definition. This facilitating of the promulgation of prescribed warranty regulations and associated air quality benefits provide a primary justification for the introduction of the idle test. Basing I/M tests on an established certification test will allow tighter "cutpoints" and hence will increase the number of deficient and failed catalysts which are caught. And if heavy-duty inspection and maintenance programs become widespread, one would expect some degree of air-quality benefit to accrue from the correcting of inservice emissions failures.

Additionally, though we have not quantified a decrease in CO emissions as a direct result of the idle test, the very small cost will make even a minimal CO reduction cost effective. And such a reduction in idle CO emissions would be most apparent in such places as crosswalks and loading docks where there is fairly direct exposure to people. Finally, idle operation was shown to be the single most common mode of urban heavy-duty operation; the separate idle test and standard will discourage a trading off of idle emissions control.

The transient test procedures are organized in Subpart N of the regulations so as to follow the structure of the light-duty regulations. The reader will find many sections to be in common.

*C. Redefinition of "Useful Life"*

These new heavy-duty engine regulations incorporate a revised definition for the "useful life" of an engine. Currently defined as 10 years, 100,000 miles or 3,000 hours of operation (whichever occurs first) for diesel engines and 5 years, 50,000 miles, or 1,500 hours of operation for gasoline engines, the useful life approximates

only half or less of the expected lifetime of the respective engine types. The new concept of useful life, in contrast, focuses on the actual total lifetime. Congress has provided EPA with wide latitude to define useful life when the Administrator determines that a duration of mileage greater than the useful life Congress prescribed for light-duty vehicles is appropriate. It is certainly appropriate in the case of heavy-duty engines and vehicles to extend the useful life beyond the 5-year or 50,000-mile limit applicable to light-duty vehicles to the extent provided by this rulemaking.

The revised useful life definition will create a strong incentive to manufacturers to produce emission controls as durable as the engines themselves. Heavy-duty engines, particularly diesel engines, tend to last longer than light-duty vehicles. The useful life definition will result in significant air quality benefits as is discussed below. Also, the 50,000-mile five-year useful life definition established by Congress for light-duty vehicles was adopted at a time when mobile source emission control technology and mobile source emission regulation were both in their infancy. Congress did not know in 1970 what control systems or engine designs manufacturers would employ to meet the standards; the technology simply had not been developed and Congress was seeking to "force" its development by setting very stringent standards. Relatively little was known regarding the impact of emission control warranties on the manufacturers. Consequently, Congress followed a very cautious approach by limiting warranty liability of light-duty manufacturers through the adoption of the 50,000-mile/five-year definition of useful life.

Today we know a great deal more about emission control technology and about the attendant implications of emission control warranties. In considering the technological feasibility of the emission standards for heavy-duty engines, the revised definition of useful life was factored in. The precise emission control technology that will (or can be) utilized to meet these standards is known and will be available. The warranty implications of the standards have been considered (see discussion in Part I of the Summary of Comments Section) and should not prove problematic to the manufacturers.

These regulations alter the manner in which the useful life is determined for heavy-duty engines. Instead of simply using a standard EPA-defined value, manufacturers will *themselves* establish for each engine family two indicators of engine life. The first of these is the average period of use up to engine retirement or rebuild. The average period of use cannot be shorter than the engine's basic mechanical warranty or 50,000-miles, whichever is greater. The manufacturers are to base their useful life values on survey information of in-service engines or durability testing of prototype engines.

Secondly, in addition to establishing an average period of use, these regulations will also require that the manufacturers submit information to define the circumstances under which an engine can be considered to need rebuilding. That is, a manufacturer will determine for each engine family what numerical results from a compression test and a measure of oil consumption and of bearing failure indicate that the engine has reached the end of its specific useful life (the manufacturer may add additional criteria). Thus, for each individual engine, an objective, measurable limit will exist to its use in durability testing or, in the field, to its coverage under the emission warranties. Finally, these rebuild criteria—as well as the average period of use—will be mentioned to the owner on an engine label and further explained in the owner's manual.

The end of the useful life of a given heavy-duty engine, then, is defined by one of two limits, whichever is reached first. Either the engine exceeds the average amount of service seen by its engine family or it deteriorates to the point of needing to be rebuilt. In no instance, however, may this actual useful life be less than the current legal minimum useful life of 50,000 miles for heavy-duty engines specified in Section 202(d) of the Clean Air Act.

The ramifications of these changes in the useful life definitions are broad. When EPA finalizes in-use durability testing, the useful life concept will delineate the durability testing program during certification. Thus, each durability engine will be run until it reaches the end of its actual useful life. Similarly, the useful life provides an endpoint to the manufacturer's warranty on emission control systems.

*D. Revisions to Certification Procedures*

In addition to the new concept of a full-life useful life, EPA is in these regulations making other changes in the design of the certification process. Significantly different approaches both to durability testing and to the engine maintenance which may be performed during that testing emphasize EPA's desire to encourage longevity in the design of emission control systems. The same underlying goal, to keep emission controls functioning properly on the road, has also led to "parameter adjustment" provisions which should encourage the design of more tamper-proof controls. How these three components will fit into the certification process is discussed next.

*1. Revised Durability Testing requirements.* EPA is postponing the finalizing of the new durability testing requirements, which like the revised useful life definition, will shift more of the responsiblity for EPA's emission control program to the manufacturer. Since the NPRM indicated that we would waive in-use durability requirements for the 1983 and 1984 model years anyway, delaying its finalization simply deletes the waived provisions. We plan to further analyze the design of the durability program and finalize regulations on a time line consistent with the finalization of the statutory $NO_x$ standards. Therefore, until the new provisions are finalized, manufacturers will design their own testing procedures for determining emission deterioration factors. The manufacturers are required to comply with the allowable maintenance provisions, as applicable. A description of these procedures must be submitted to EPA, but we will not approve or disapprove them.

On the other hand, the multiplicative deterioration-factor provisions *are* being finalized. They have no relationship to the in-use durability requirements and need not be postponed.

*2. Allowable Maintenance Regulations* The new durability requirements when they are promulgated will improve the quality of durability testing in order to better assess the deterioration of emission controls; the allowable maintenance provisions will put restrictions on the maintenance which may be done during that testing (as well as the testing used to measure emissions deterioration under these 1984 regulations) to encourage the design of long-lived emission control components. Thus, both of these sets of provisions have the central purpose of making the durability of emission systems a major design goal.

Emission-related maintenance (as defined in Subpart A, Section 86.084-2) on engines, subsystems, or components used to determine the deterioration of emission controls will be limited to that which is technologically necessary. EPA has established minimum technologically necessary intervals for a number of emission-related components. This maintenance is also that which will be recommended to the owner in the operator's manual. The manufacturer

may recommend more frequent maintenance, as long as the instructions for such additional maintenance are clearly differentiated (in a format approved by the Administrator) from the emission-related maintenance approved under Section 86.084–25(c). Performance of this additional maintenance may not be made a prerequisite to emission warranty coverage. It may be appropriate for a manufacturer to require additional maintenance as a precondition to warranty coverage if such maintenance is necessary to offset the effect of severe and abnormal operating conditions. These issues are a proper subject to be considered in the course of developing performance warranty regulations under Section 207(b) of the Act.

The basis for defining the "technologically necessary" maintenance intervals for most of the components addressed was the longest interval that any manufacturer recommended for that item. With proper emphasis placed on durable, low-maintenance designs, it is reasoned, manufacturers will opt for the best available technology (from a maintenance perspective) for their emission related components. Thus, the minimum level of maintenance currently required for an item should be a lower limit for the 1984 maintenance interval.

The case of the catalyst replacement interval is unique in that experience does not exist with properly-sized, properly-loaded, heavy-duty catalysts. EPA has had to rely on light-duty experience, a knowledge of the physical phenomena associated with loss of catalyst efficiency, and limited testing to arrive at a best judgment regarding the durability of 1984 model year heavy-duty converters. The EPA analysis (see Summary and Analysis of Comments, Allowable Maintenance issue) concludes that such catalysts can be expected to be functional for about 114,000 miles (the estimated life expectancy for gasoline heavy-duty engines). Information shows that if they are protected against high temperatures, current-technology catalysts do not fail catastrophically and that they actually degrade less rapidly with time. Proper sizing, loading, and placement of the catalyst, as well as special motoring-mode protection, remove the threat of physical failure in heavy-duty applications. However, the provisions allow the manufacturer to recommend a catalyst replacement at 100,000 miles.

EPA has decided to postpone the provisions of the second criterion regarding a prospective maintenance interval—that there is a "reasonable likelihood" that the owners will actually perform the maintenance at that interval. The requirement for meeting this second criterion is being removed from these regulations, but it will probably be reproposed with the forthcoming $NO_x$ regulations.

We believe the manufacturer will be able to show that proper maintenance is being done in the field with respect to such maintenance as spark plug and ignition wire replacement. Therefore, it is not so necessary that in-use performance be demonstrated. However, when $NO_x$ control regulations are promulgated, oxygen sensors may be employed to control closed-loop catalyst systems. Oxygen sensor maintenance is an item for which EPA is likely to need assurance that owners are properly performing it. Consequently, such requirements may be reproposed in the future.

The regulations distinguish between emission-related maintenance and non-emission related maintenance. This distinction is solely for the purposes of engine certification. The Agency recognizes that an owner's failure to perform "nonemission related maintenance" could result in an in-use vehicle's failure to comply with emission standards and could in some instances relieve a vehicle manufacturer from emission warranty liability. For this reason, some of these maintenance items could be subject to regulation in future maintenance instruction regulations.

*3. Parameter Adjustment Regulations.* The final major change in the current certification process is directed at the emission testing itself. EPA will be allowed during a test to adjust (or require the manufacturer to adjust) certain emission-related parameters to any setting within the physically adjustable range. To make sure that the tests can be passed, the manufacturers are expected to restrict the adjustability of the parameters.

The incidence of in-use maladjustment of heavy-duty engines should decrease as a result of these regulations. Maladjustment is a serious problem in the light-duty vehicle fleet; heavy-duty inspection/maintenance data from Oregon and New Jersey indicate that the heavy-duty population is afflicted by maladjustment as well. These parameter adjustment regulations are patterned very closely after those recently promulgated for light-duty vehicles and are authorized under Sections 202, 206, and 301 of the amended Clean Air Act.

For diesel engines, parameter adjustment provisions are being established, but as yet no specific parameters fall under the requirements. Thus, diesels are effectively exempt for the time being. The Administrator may at any time require that a specific parameter be adjusted during testing provided that he/she makes the following determinations: (1) the parameter is being maladjusted in the field, (2) such maladjustment has a significant effect on emissions, and (3) due consideration has been given to leadtime. These provisions are identical to those currently in place for light-duty diesel-powered vehicles.

On the other hand, four parameters are subject to adjustment during the testing of gasoline engines: idle fuel-air mixture, idle speed, idle spark timing, and choke valve action. In the same manner as with diesels, the Administrator may determine that additional emission-related parameters should be added to this list.

Since these provisions affect engine emission tests, their applicability reaches into all aspects of EPA's emission control program that require standard heavy-duty testing. Thus, parameters may be adjusted during the testing of emission-data and durability-data engines and during Selective Enforcement auditing (indeed, separate parameter adjustment regulations exist within the auditing rules).

*E. Selective Enforcement Auditing*

Background: Selective Enforcement Auditing (SEA) is an emission testing program authorized by Section 206(b) of the Clean Air Act for new production engines as they leave the assembly line. Similarly, Section 206(g) requires testing as necessary, according to promulgated regulations, to determine the extent that vehicles are not in compliance with the requirements of the Act for the purpose of assessing non-conformance penalties (see Paragraph G, Public Participation Section "Production Compliance Auditing and Nonconformance Penalties").

EPA has determined that the Clean Air Act requires that eventually, every car coming off the assembly line should meet the emission standards established under Section 202. The SEA program is used to determine compliance with emission standards, after adjustment for deterioration, as production engines leave the assembly line. The program employs a 10 percent Acceptable Quality Level (AQL), which imposes a significant risk of loss (5 percent or greater) of certification if 10 percent of an engine configuration is out of compliance. The 10 percent AQL allows for emissions measurement error and quality control aberrations which cannot be totally eliminated at the

assembly line. Therefore, a 10 percent AQL in effect requires every heavy-duty production engine to meet applicable emission standards.

An "every source" approach was also adopted by EPA in its SEA programs to determine compliance of portable air compressors and medium and heavy trucks with applicable noise emission standards under the Noise Act, which also contemplates that every source meets the standards. See 41 FR 2162 (January 14, 1976) and 41 FR 15538 (April 13, 1976). A 10 percent AQL SEA program was promulgated in both cases. In addressing comments on the AQL in the compressor regulation, EPA stated:

> * * * the basic requirements still remain that a manufacturer is prohibited from distributing into commerce any products which do not conform with the standard. The basic intent is that all products being distributed in commerce must conform to the standard. Any product that is tested and which is known not to conform to the standards may not be distributed into commerce until the nonconformity is remedied. Furthermore, every compressor is warranted to conform to the standard at the time of sale * * * (41 FR 2167).

In promulgating a 10 percent AQL for truck noise emissions, EPA stated:

> An AQL of 10 percent was chosen to take into account some test variability and random production errors. (41 FR 15539).

A 10 percent AQL also was proposed for the SEA program for light-duty vehicles (39 FR 45360 (1974)). However, the manufacturers claimed that the 10 percent AQL would be economically disastrous. As stated in the preamble to those final regulations (41 FR 31474, July 28, 1976), the manufacturers

> claimed that, if implemented, it [10 percent AQL] would result in loss of certification for a majority of their engine families, with consequent repercussions on employment and profitability, and that, even if it could be met, could only be done by adding more emission control equipment, thus decreasing fuel economy and increasing sulfate emissions and price.

EPA recognized that in order to bring noncomplying engine families into compliance, manufacturers would have to make significant improvements in quality control and in some cases lower the engineering design targets for these families. The agency acknowledged that:

> these kinds of changes could not be made on short notice and would require some reasonable period of time to institute. (41 FR 31473)

A 40 percent AQL was adopted for the light-duty vehicle SEA regulations to implement SEA in a manner not unreasonably burdensome to the auto companies. EPA explained that:

> The approach taken here, then, of not setting the AQL at 10 percent will provide manufacturers the time and flexibility to bring all their vehicles into conformance with the standards on a reasonable schedule. Such a schedule can be compatible with their parallel efforts to improve fuel economy and which does not expose them unduly to the risk of loss of certification while they are learning to bring their production vehicles into compliance with the law. (41 FR 31475)

In contrast to the SEA for new light-duty vehicles, which would have required significant quality control upgrading on short notice if the 10 percent AQL was adopted, the SEA for heavy-duty engines is not scheduled for implementation until the 1984 model year. Engine manufacturers will have sufficient lead time to acquire the necessary test equipment, develop and apply the necessary emission control technology, and certify their engines. Heavy-duty gasoline engine manufacturers will be able to utilize catalyst control technology currently used on light duty vehicles and trucks, and diesel engine manufacturers should not have significant developmental needs as their engines are already close to compliance. It is EPA's judgment, as expressed in its technological feasibility and cost analyses, that both heavy-duty gasoline and diesel engines, using the new testing procedures, can comply with the emission levels associated with a 10 percent AQL. Thus, the severe effects anticipated by light-duty vehicle manufacturers due to immediate imposition of a 10 percent AQL (adverse employment and profitability repercussions and the loss of certification) are not likely to be manifested in the heavy-duty engine industry as a result of this rulemaking.

In addition, no data or analyses were submitted which demonstrated that going from a 40 percent AQL to a 10 percent AQL would adversely impact fuel economy, increase non-regulated pollutants such as sulfates or require additional emission control equipment. Further, an EPA cost-effectiveness study which analyzed the difference between a 40 and 10 percent AQL concluded that the 10 percent AQL has a favorable cost-effectiveness ratio.

Finally, EPA has determined that a nonconformance penalty (NCP) should be made available to heavy duty engine manufacturers who are unable to obtain a certificate of conformity or whose engines fail to comply with the emission requirements during an SEA. The noncompliance penalty provisions are discussed further in Paragraph F of the Public Participation section (Production Compliance Auditing and Nonconformance Penalties). A manufacturer who elects to pay such a penalty upon failure of an SEA may continue to produce noncomplying engines in lieu of bringing the engines into compliance.

*SEA Audit Procedures:* The process of conducting an SEA audit begins with a test order issued by EPA to a manufacturer. The test order is issued either for purposes of general surveillance or in response to evidence indicating noncompliance. If a manufacturer conducts its own assembly-line testing program, the data will help EPA determine compliance with the standards. The manufacturer is required to report these test results to EPA as authorized in Section 208(a) of the Clean Air Act.

Each manufacturer will be assigned a limit on the number of test orders which EPA may issue during a model year, based on its projected annual sales. Every test order will count against a manufacturer's annual limit, with two qualifications. Test orders that indicate a manufacturer's engine configuration has not passed and SEA will not count against the limit. Also, in cases where the annual limit has been met, additional test orders may be issued in response to evidence indicating noncompliance.

The test order will instruct the manufacturer to test the specified engines or to make them available for Agency testing. EPA Enforcement Officers are authorized to enter the production and test facilities, upon manufacturer consent, to monitor SEA-related activities; a court order or warrant may be issued if entry is denied.

Test orders will specify the manner and location of the selection of engines. The "sequential" design of the sampling plans provides sufficient flexibility in sample selection so as not to unduly impact a manufacturer's normal production activities.

The manufacturer may "break-in" engines before testing, up to a maximum of 125 hours. After break-in, transient and idle tests (and, in the case of diesel engines, smoke tests) are performed to determine engine emissions. The emission test procedures are identical to the test procedures used in certification. After the emission levels are adjusted to account for deterioration, they are compared to the standards and a determination of "pass" or "fail" is made for each engine for each pollutant. The manufacturer is expected to complete at least two tests per day. "Low volume" manufacturers (predicted sales of less than 30,000 per year) are required to complete one test per day. This requirement provides the obvious

benefits for both EPA and the manufacturer of expediting the completion of the audit.

An audit decision is reached using the "sample inspection criteria" tables found in the regulations. Engines are sequentially tested until the number of passed engines corresponds to a "pass" number on the table or the number of failed engines corresponds to a "fail" number. Classifying engines as either passing or failing rather than examining their numerical emission levels reflects an "attributes" rather than a "variables" decision-making approach. (The "variables" approach was not practical because of the uncertainty in defining the distribution of emissions among heavy-duty production engines.)

Failure of a SEA audit may result in suspension or revocation of the certificate of conformity for that configuration. To have the certificate reinstated subsequent to a suspension, or reissued subsequent to a revocation, the manufacturer must demonstrate, by passing a follow-up SEA audit, that improvements, modifications, or replacement have brought the original engine configuration, the modified engine configuration, or its replacement into compliance. The regulations include hearing provisions which allow the manufacturer to challenge EPA's suspension or revocation decision based on application of the sampling plans or the manner in which the tests were conducted.

*F. Production Compliance Auditing and Nonconformance Penalties*

EPA believes that both diesel and gasoline heavy-duty engine manufacturers will be able to meet the requirements prescribed in these regulations by 1984. In the NPRM, we had proposed setting the "upper limit" for noncompliance equal to the standard, which would have made nonconformance penalties unavailable. However, to provide for isolated instances when compliance may not be achieved, EPA plans to propose a program to allow certification of engines which exceed the standards, but which do not exceed a designated "upper limit," if a "nonconformance penalty" (NCP) is paid by the manufacturer. The size of the penalty will depend, in part, on the extent by which the emissions exceed the standards, as determined by Production Compliance Auditing (PCA).

As part of the separate rulemaking providing for the nonconformance penalties, EPA will propose the "upper limit" on certification and the marginal cost component of the general penalty formula. EPA plans to propose PCA/NCP similar to the form in which it was originally proposed as part of Subpart K (see 44 FR 9469, 9470, 9490, and 9492, §§ 86.1011–83 and 86.1013–83). The rulemaking will allow for public comment on the proposed upper limit and marginal cost numbers; as well as all other aspects of the PCA/NCP methodology. EPA anticipates publication of its NPRM for the NCP by early 1980.

The Agency has determined that proposal and promulgation of nonconformance penalties does not affect leadtime requirements for compliance with statutory emission standards. With the promulgation of standards in this rulemaking, the manufacturers are expected to begin making good faith efforts towards complying with all aspects of the final regulation. The future availability of nonconformance penalties should not be viewed as a mechanism allowing a manufacturer to design to higher emission levels. EPA intends to structure the penalty, as required by law, to remove any competitive disadvantage to complying manufacturers.

III. Leadtime

EPA has determined that both the gasoline and diesel engine manufacturers will be able to comply with these regulations by the 1984 model year. Our analysis, based substantially on information submitted by the manufacturers, shows that certification should be complete several months in advance of the beginning of the production of 1984 engines.

Looking first at the gasoline engine manufacturers, EPA estimates that the entire pre-certification process can be completed by all 4 manufacturers before the end of 1982. The conversion of dynamometers to transient-control is the limiting factor in the projected timetable. If the first one or two test cells that become operational are utilized for preliminary technology assessment, development research can begin before the end of 1980 and expand as the further cells are completed. Eighteen months of development work and 7 months of certification will cause the manufacturers to overshoot the beginning of 1983 production. While it appears feasible to compress the schedule with an all-out effort to meet the 1983 model year, EPA has concluded that there is too high a risk associated with such a program and has decided to promulgate for 1984. This risk is associated with the uncertainty that all pre-certification work would be completed in time for 1983 certification. Thus, when the effective model year is rolled back to 1984, the EPA projection provide some 10 months of "cushion" for 1984 certification; we expect this timetable to cover unforeseen delays. Though this schedule is more compressed than those submitted by some of the manufacturers, each of the companies will be able to certify their engines for 1984 in a properly-managed program.

The design of a pre-certification timetable for diesel manufacturers clearly differs from that of the gasoline engine makers, primarily because of equipment requirements. Currently, diesel development work is done on eddy-current dynamometers (which absorb energy but lack the capability of driving (motoring) the engine). Conversion to transient control will require the replacement of these machines with electric motoring dynamometers (unless the option described later in this section is pursued). All of the major manufacturers have begun procurement of at least one advance cell, but they disagree on the time required for additional development dynamometers. Caterpillar expected that construction of a new facility alone would last three years, and IH desires to postpone the acquisition of new equipment until EPA finalizes particulate standards. Yet both of these obstacles can be avoided—Caterpillar's by making efficient use of existing facilities during construction and IH's by a simple corporate decision to pursue 1984 certification. By September 1981, all manufacturers should have transient test cells operating and development will have begun.

EPA has carefully studied the various company estimates of the time required for development work. The differing amounts of work required among diesel engine families to bring them into compliance will facilitate the efficient use of cells as they become available (engines needing the most work would be placed in the earliest cells). Also, most engine families that will require work are reasonably close to the target levels already. With such factors acting in favor of the industry, 14 to 16 months of engine development work should be sufficient. Durability testing and certification stretch the process into 1983, leaving about 7 additional months before 1984 production. However, it might be possible for the diesel manufacturers to comply by 1983, especially if development efforts were accelerated.

There is a possible alternative route available to the diesel manufacturers. It arises because it may be possible that an eddy-current dynamometer could be

converted to transient control and adequately run a modified transient test. While eliminating the cost of dynamometer replacement, this option suffers from the uncertainty that the operation of such a system would sufficiently mirror that of an electric dynamometer. Thus, a system would have to be built up and proven before a manufacturer could commit to further procurement. The resulting effect on the total precertification process is a 4-month extension of the schedule outlined above. Because of this delay, we expect that few, if any, manufacturers will use this option. To remove some of the risk, however, EPA will allow the option of certification on the current 13-mode procedure for one additional year (the 1984 model year). A standard which "roughly" corresponds to the transient HC standard and a separate $NO_x$ standard have been developed to minimize the loss of air quality benefits.

Congress intended (and EPA originally proposed) that the statutorily-inposed HC and CO standard would become effective with the 1983 model year. However, Congress also anticipated that standards representing a 90 percent reduction or, if appropriate, revised standards would be in place no later than December 31, 1978. What neither Congress nor EPA anticipated at the time the 1977 Amendments were enacted was the additional time necessary to develop a test procedure designed to ensure that the significant reductions in HC and CO emissions that Congress sought would actually be achieved. The Agency is running about a year behind the schedule for implementation that Congress had expected. Delaying the effective date one additional year until the 1984 model year to ensure that manufacturers will have adequate leadtime to meet the requirements is also consistent with the leadtime requirements identified by Congress by Section 202. However, it should be noted that it is the Agency's view that had it been clearly evident that sufficient leadtime existed to permit the manufacturers to comply with the statutory standards in 1983, Congress' desire to have the standards take effect in the 1983 model year would have taken precedent over any expressions concerning leadtime to which the manufacturers might otherwise have been entitled to under Section 202.

## IV. Feasibility of Compliance

The foregoing assertion that the 1984 model year deadline can be met by both gasoline and diesel engine manufacturers necessarily carries the implication that meeting the requirements of the regulations is feasible. Indeed, a detailed EPA analysis shows that widespread compliance is attainable by the manufacturers.

Based upon a rough correlation between the 13-mode test procedure and the transient test results, EPA projects that 36 percent of the diesel engine families already will emit at or below target emission levels (as derived from expected deterioration factors, 10 percent Acceptable Quality Level, and manufacturers' engine-to-engine emissions variability with little or no modification). Among the remaining families, most will require only modest improvements. The approaches that EPA anticipates for achieving the targets are not new; such things as injector spray pattern and sac volume, after-cooling of turbocharged intake flows, and turbocharging of naturally-aspirated engines are available paths to compliance. The demonstrated ability on the part of manufacturers to improve the emissions characteristics of some of their engines (particularly Cummins and Caterpillar) strongly supports EPA's conclusions.

The feasibility of the gasoline manufacturers' reaching their target emission levels actually depends primarily on the use of properly-sized and loaded catalytic converters. Additional air injection to increase catalyst oxidation will further improve HC and CO emission levels. EPA has recently demonstrated that gasoline engines equipped with properly-sized and loaded catalysts and appropriate air injection can achieve emission levels well below the projected target levels needed to meet the standards at a 10 percent AQL. Finally, the essentially decontrolled level of $NO_x$ which the standard in these regulations represents for most engines should allow considerable flexibility in achieving design goal emission performance.

## V. Effect on the Environment

By reducing the amount of hydrocarbons (HC) and carbon monoxide (CO) emitted into the atmosphere by heavy-duty gasoline and diesel engines, this rulemaking package will contribute significantly to improving the average ambient air quality in the U.S. An extensive EPA air quality analysis is presented in the Regulatory Analysis. This work shows that if the regulations are implemented, the average heavy-duty gasoline engine will emit over its lifetime one ton less HC and 29 tons less CO. Similarly, the HC reduction from the average heavy-duty diesel will be 0.8 tons. When translated into air quality improvement, this means that the average urban level of ozone will be 2 percent lower by the late 1990's. Likewise, CO air quality will improve 7 percent. Because of inaccuracies in the modeling techniques, conclusions about the effect of these reductions on the ability of specific regions to meet the ozone and CO ambient air quality standards cannot be reached with statistical confidence. However, the reductions are of sufficient magnitude that if certain regions are within a few percent of the standards in the 1990's, the control of heavy-duty engine emissions could bring them into compliance.

EPA's analysis indicates that because of the introduction of catalysts into the heavy-duty gasoline vehicle fleet urban mass emissions of sulfuric acid will rise, but only slightly. Lead emissions will be practically eliminated because of the shift to lead-free gasoline. Finally, complying with the regulations should not adversely impact water quality, the ability of manufacturers to meet future noise standards, or energy consumption (see Fuel Economy below).

## VI. Economic Impact

The implementation of these regulations will require each manufacturer of heavy-duty engines to direct additional capital toward facility modifications, equipment purchases, emission control hardware, and expanded testing and research. These costs will, for the most part, be passed along to the engine buyers, who will see the effect as an increase in the first cost of the engines. Additionally, owners of gasoline engines will experience some increase in their operating costs due to the need for leadfree fuel.

The increased costs felt initially by the manufacturers will vary widely primarily because of differing equipment requirements. Accordingly, EPA has performed careful, detailed analyses of the costs for each individual company. The first-cost-increases which appear below, however, are averages for the gasoline and diesel industries.

The higher prices expected for gasoline engines are attributable mainly to the additional hardware requirements inherent in the use of oxidation catalyst technology (catalysts, improved air pumps, stainless steel exhaust system, etc.); incidental costs for test facilities and research/development are small on a per-engine basis. EPA estimates that compliance with this rulemaking will result in a purchase price increase of the average gasoline heavy-duty engine by as much as $394, or about 3 percent of the total purchase price.

As suggested above, an additional economic burden will fall to the users of

gasoline engines. The standards are such that oxidation catalyst systems will be necessary in 1984. The tetraethyl lead in regular gasolines quickly poisons catalysts, so, like light-duty vehicles, heavy-duty gasoline engines will need to run on unleaded fuel. However, the use of lead-free fuel will extend the lives of the spark plugs and exhaust system. When the additional cost of using more expensive unleaded fuel is offset by these equipment replacement savings, a *net* increase of about $83 results in the lifetime operating costs of a gasoline-powered heavy-duty vehicle.[4]

Diesel manufacturers are expected to bring most of the engines which need work into compliance with relatively minor adjustments to the engine itself. Add-on hardware such as aftercoolers, exhaust gas recirculation, and diesel crankcase controls, will be required on engines representing roughly 12 percent of expected sales. The non-hardware changes will be in such things as injector design and timing, and additional hardware will be in the form of aftercoolers and exhaust gas recirculation (EGR) systems. An average diesel engine retail price increase of $195 will be borne by the buyer (about one-half of 1 percent of the total price) if all costs are assumed to be passed along.

In summary, the aggregate 5-year cost of these regulations (1984–88) is estimated to be $948 million (present value at the start of 1984 assuming 10 percent discount rate). The aggregate 5-year cost for gasoline-fueled vehicles above is estimated at $705 million and for diesel vehicles, $243 million. Of the total cost, $122 million is attributable to the increased cost of unleaded fuel for gasoline-fueled vehicles (including offsetting savings).

Because of the anticipated improvement in gasoline engine fuel economy (see Fuel Economy, below), the operating costs for gasoline engines—and hence the total cost of the package—are expected to be reduced. Savings in fuel costs that will be seen by the operator of a gasoline engine are projected to amount to at least $788 over the life of the engine, based on the *low* end of the anticipated range of fuel economy improvements. The effect of this benefit on the aggregate cost of the rulemaking is to reduce it by $1.26 billion, yielding an aggregate cost of *negative* $313 million (−$557 million for gasoline engines and $243 million for diesels).

[4] For simplicity, the savings in this calculation actually include a small component which is not attributable to the introduction of unleaded fuel—a stainless steel exhaust system.

## VII. Cost Effectiveness

Cost effectiveness is a measure of the "economic efficiency" of a regulatory action, in this case expressed as dollars of cost per ton of pollutant reduced. We have pursued two distinctly separate approaches to the cost effectiveness of this rulemaking, an incremental analysis and an integrated approach. The incremental analysis has been performed as a measure of the effect of removing each of the several individual elements which make up the package. The second approach is that of determining the cost effectiveness of the entire package as an integrated strategy. Because of the interrelationships among the various components of the package, the benefits of components can overlap and enhance one another. Thus, it would be improper to total the incremental costs and benefits to obtain an overall figure for the package since there would be a considerable amount of double counting. The integrated cost effectiveness analysis must be used to evaluate overall costs and benefits.

The results of the incremental analyses for gasoline and diesel engines appear in the following tables, reprinted from the Regulatory Analysis. Because each component is treated separately, the incremental analysis in effect represents an analysis of various alternative regulation packages. For example, the cost effectiveness of a package which excludes parameter adjustment is found by subtracting the parameter adjustment cost and the benefit from those for the overall package. Thus, in this example, $472 in cost, divided among a 0.92 ton HC benefit and a 25.0 ton CO benefit, yields HC and CO cost-effectiveness numbers of $256/ton and $8.3/ton, respectively. (The transient test was evaluated in relation to achieving a 90 percent reduction using the steady-state test.) The reader is encouraged to examine the careful, detailed cost-effectiveness analysis of these individual components in the Regulatory Analysis, Cost Effectiveness chapter.

Table 1.—*Incremental Lifetime Cost Effectiveness Gasoline-Fueled Engines*

| Option | Cost | Benefit (tons) | | Cost effectiveness (ton) | |
|---|---|---|---|---|---|
| | | HC | CO | HC | CO |
| 90 pct on 9-mode [1] | $426 | 0.61 | 16 | $349 | $13 |
| Transient test | 51 | .39 | 12.6 | 65 | 2 |
| Useful life | 58 | .13 | 3.8 | 223 | 8 |
| Parameter adjustment | 5 | .06 | 3.6 | 31 | 1 |
| Allowable maintenance | 58 | .13 | 3.8 | 223 | 8 |
| 10 pct AQL | 17 | .04 | .5 | 213 | 17 |
| Overall package. a. Transient test. b. Useful life. c. Parameter adjustment. d. Allowable maintenance. e. 10 pct AQL | 477 | 1.0 | 28.6 | 238 | 8 |
| UM | 29 | .07 | 2.3 | 207 | 6 |

[1] Includes all other aspects of the rulemaking except the transient test.

Table 2.—*Incremental Lifetime Cost Effectiveness Diesel Engines*

| Option | Cost | Benefit (tons HC) | Cost effectiveness (ton) |
|---|---|---|---|
| Steady-State test | $85 | 0.28 | $304 |
| Transient test | 110 | .49 | 224 |
| Useful life | 2 | .05 | 40 |
| Allowable maintenance | 5 | .05 | 100 |
| 10 pct AQL | 7 | .24 | 29 |
| Crankcase control [1] | 10 | [2]19.50 | 342 |
| Overall package. a. Transient test b. Useful life c. 10 pct AQL d. Crankcase control | 195 | .77 | 253 |

[1] Naturally-aspirated engines only. Cost allocated over 3 pollutants. See diesel crankcase emission control, summary and analysis of comments.
[2] Pounds.

The table below presents the cost effectiveness of the integrated package with respect to both gasoline-fueled engines and diesels. The costs used in calculating these values represent the present worth on January 1, 1984 using a discount rate of 10 percent.

| | Cost effectiveness (ton) pollutant | | |
|---|---|---|---|
| | HC | CO | $NO_x$ |
| Gasoline-fueled engines | $273 | $10 | |
| Diesel engines | 308 | | |

When these cost-effectiveness numbers are compared to those of other HC and CO control programs, it is clear that this regulation package is indeed cost effective.

Note.—The analysis which led to these numbers does not include the savings associated with fuel economy gains. If these savings are included, the cost effectiveness for gasoline engines becomes negative (−$150/ton for HC and −$5/ton for CO). The case for diesels is unchanged. Since the fuel economy gains are associated with catalyst technology and the base case for the

incremental analysis assumes catalyst technology, the incremental cost effectiveness numbers are not affected.

## VIII. Role of Inspection and Maintenance (I/M)

While this rulemaking contains no specific reliance on I/M programs and thus claims no related costs or benefits, there are ways in which I/M would enhance the effectiveness of the rulemaking. When it is viewed as an "insurance policy," I/M can be seen to protect against the loss of air quality benefits to such problems as misfueling or tampering. Up to 8 percent of light-duty vehicles are currently misfueled with leaded gasoline, largely in response to economic incentive to do so—the same incentive that will undoubtedly cause a degree of misfueling in heavy-duty gasoline engines. Tampering (e.g., removal of the catalyst) would also be discouraged by heavy-duty I/M programs. Thus, the establishment of heavy-duty I/M can help realize the full potential of these regulations.

It could be argued that I/M might secure the same benefit as certain other provisions of this rulemaking which exist, in part, to improve in-use emission control. The extension of the useful life definition and the introduction of parameter adjustment and allowable maintenance regulations, however, differ in concept from I/M in that they require the manufacturers to build more durable and tamper-resistant emission control systems. It is considerably less expensive to the consumer to pay for long-lived designs than to pay for replacement in the field. (We have calculated the incremental cost of a full-life catalyst over a half-life design to be $58; this compares to a $481 aftermarket replacement.) Thus, these components of the package have a clear place in the emission control program independent of the establishment of heavy-duty I/M.

We see I/M as a necessary provision to assure that the program will not be subverted due to misfueling and tampering. However, I/M is more cost effective as an insurance policy to back up a program based on durable control system designs than as a program to force repeated in-field maintenance on non-durable equipment.

## IX. Fuel Economy

EPA believes that no increase in fuel consumption in either gasoline engines or diesels will accompany the enactment of these regulations. We do expect some manufacturers will use emission-control hardware that will cause a slight fuel economy penalty, for example, larger air pumps on gasoline engines and exhaust gas recirculation on diesels. Yet the beneficial effects of other control systems will offset these losses and are expected to result in net fuel economy gain, particularly in gasoline engines.

The shift in the gasoline engine industry to oxidation catalysts will permit freer adjustment of the carburetor to maximize fuel economy. Similarly such approaches to diesel HC and CO reduction as after cooling, injector design, and combustion chamber changes can improve fuel efficiency.

Thus, despite the common criticism of EPA that emission controls reduce fuel efficiency, the EPA staff has performed an analysis (see Summary and Analysis of Comments, Fuel Economy issue) which concludes that the introduction of catalysts will allow gasoline engine manufacturers to realize a gain in fuel economy of 4 to 9 percent over 1979 engines. This estimate was calculated from measured heavy-duty performance parameters and actually observed increases in light-duty vehicle fuel economy after the introduction of catalyst technology. While we expect a parallel improvement in diesel fuel economy (though probably smaller than that in gasoline engines) the magnitude is difficult to accurately determine because of the numerous combinations of adjustments, redesigns, and hardware changes that will be pursued.

## X. Public Participation

The structure and content of this Final Rulemaking, which was presented in detail in the preceding portion of the Preamble, was shaped considerably by the public response to the Notice of Proposed Rulemaking (NPRM). This response took the form of a large body of oral and written comment. More than twenty organizations submitted comments on the proposal to EPA, the majority of which represented the heavy-duty engine manufacturing industry. In addition, trade organizations representing the trucking industry and the independent parts manufacturers, three governmental agencies, and two trucking companies made submissions. Finally, EPA received comments from a University of Waterloo professor and the Connecticut Construction Industries Association. We sincerely regret that no environmental, consumer, or citizens' advocacy groups of any kind were involved in the public participation process.

It is the purpose of this section of the Preamble to highlight those major areas of comment which resulted in significant alterations to the Proposed Rulemaking package as well as those which did not. The reader will be able to see from these paragraphs how the Final Rule differs from the NPRM and why EPA did not follow the suggestions of some commenters. The reader is encouraged to consult the separate document entitled "Summary and Analysis of Comments," which summarizes the comments received along with the comprehensive EPA staff analysis (see AVAILABILITY OF DOCUMENTS below). All of the detailed comments are assembled in the public docket.

### *A. Test Procedures*

Of the components of the proposed regulations, the gasoline and diesel test procedures have probably been modified the most in response to the comments. Still, EPA has largely retained the test procedures in their proposed form (i.e., requiring transient testing).

The complications introduced by the 12-hour soak period drew a large amount of comment. We have been able to directly answer this criticism—while keeping the benefits of a cold-start procedure—by allowing a forced cool-down approach. Rather than requiring a test engine to naturally cool off for 12 hours before each test, the new provisions will allow accelerated cooling. Engine oil temperatures can be returned to ambient levels in 2–4 hours. So it will still be possible to sample cold start emissions and at the same time greatly reduce wasted dynamometer time.

In another major change from the proposed regulations, diesel engine manufacturers will be allowed to delay certification on the transient test procedure for one year, 1984. This option is offered specifically to provide interested manufacturers with enough time to explore the conversion of their eddy-current dynamometer to transient control. Caterpillar Tractor Company suggested that such a conversion might be desirable and strongly urged EPA to allow it. Certification for an additional year on the current 13-mode steady-state procedure will allow time for motoring dynamometers to still be installed if it happens that correlation cannot be established on a transient-control eddy-current dynamometer. It is important to stress, however, that we do believe that any diesel manufacturer will be able to certify for 1984 on the transient test if they proceed with replacing (rather than converting) their eddy-current machines. To be conservative, our cost analysis assumes that the manufacturers make the conversion to electric motoring dynamometers.

Finally, idle testing requirements have been removed from these regulations for diesel engines. Also the requirement for

gasoline engines has been reduced; only compliance with the CO standard is necessary.

EPA has further responded to the commenters by making numerous minor technical adjustments to both the gasoline and diesel test procedures. A thorough discussion of these points may be found in Part II of the Summary and Analysis of Comments document.

Transient testing requirements were roundly criticized by both gasoline and diesel engine manufacturers (and others). EPA's retaining of the transient test provisions in nearly their proposed form comes as a result of an extensive evaluation of the comments, in which we concluded that the proposed transient procedures are both necessary and appropriate. Comments primarily centered around the justification for the tests, their representation of real life operation, their validation, their repeatability, and the lack of current knowledge upon which to base comments.

EPA is convinced that transient testing is necessary to assure that engines will indeed demonstrate a 90 percent reduction in emissions. The current steady-state tests have been shown to become progressively less reliable as indicators of in-use emissions as stiffer standards are imposed on heavy-duty engines. Furthermore, the reductions in diesel HC emissions available through transient testing requirements are very cost effective relative to other means of HC control.

Additionally, the background of and recent experience with the transient tests support the Agency position that the tests are representative and of reasonably high quality. The origin of the operating cycles was an extensive program of actual in-use operational data collection, and we are confident that the emphasis placed on quality during the subsequent cycle development program assures real world operating characteristics are well represented in the laboratory. It will not be possible to "validate" the cycle through time-consuming comparisons between on-the-road vehicle emissions and laboratory emissions. But the pains taken to assure the representativeness of the cycles, in our view, would make such a validation superfluous anyway.

The gasoline and diesel test procedures have evolved since 1972 in an atmosphere of open intent and free sharing of information; EPA's tests data has always been readily available to manufacturers to enable them to comment and participate in the development of the procedures. The failure of some manufacturers to build up experimental test sites and hence the difficulty in commenting is largely self-imposed. On the other hand, this evolution process has been a learning experience for EPA, and we have been able to streamline the procedures to improve their quality (many minor improvements appear in the final regulations). At this stage, all labs for which transient test data are available show a degree of correlation.

The EPA analysis of the numerous comments criticizing the transient test requirements is very extensive and complete. We encourage the reader who is interested in pursuing this issue in more detail than the brief summary above to see the Summary and Analysis of Comments document.

### *B. Redefinition of Useful Life*

The arguments of many commenters that the useful life of heavy-duty engines should not be changed from the current half-life concept were not sufficiently convincing to warrant a retraction of those provisions. On the other hand, several useful suggestions were offered and have been incorporated into the rulemaking.

Several commenters were concerned that shifting to a full-life useful life concept will violate the intent of Congress. However, EPA has been unable to find support for such a change in both the latter and the record of the Clean Air Act as amended. Nowhere does Congress place a half-life restriction on EPA with regard to heavy-duty engines.

Another issue brought up in the comments was the increased stringency of the standard as a result of the useful life revision. EPA agrees that in order to assure full-life emissions compliance the zero-mile emissions will have to be lower. Yet this really represents not an increase in the stringency of the standards so much as a necessary aspect of applying the full-life concept to certification.

EPA believes that the proposed change in the definition of useful life is appropriate and basically sound. However, we have been able to make some improvements in the application of the concept, as summarized in the following paragraphs.

Commenters were concerned that the general definition of "useful life" as the "average period of use up to engine retirement or rebuild" was not specific enough to be applied to individual engines. We agree and have linked the average period of use seen among engines in the field with a set of mechanical criteria which signal the need for a rebuild. The end of an engine's useful life (as it applies to durability testing and warranty provisions) will now be marked in one of two ways. Either the engine will reach the *average* lifetime specified for its entire engine family or tests will show that its *individual* mechanical integrity has deteriorated to the point of requiring a rebuild (whichever occurs first). The manufacturer is responsible for defining both the family-wide average useful life and the engine-specific rebuild criteria.

Another change in the regulations responds to the criticism that owners might misconstrue the meaning of the average useful life as it applies to their engine. A clarifying statement on the label will state that the actual life of the specific engine will vary according to the nature of its application. This addition should relieve manufacturers' fears that warranty conflicts will arise out of confusion among the owners about the useful life concept.

### *C. Revised Durability Testing Requirements*

The finalizing of comprehensive in-use durability testing requirements has been postponed—even as proposed, in-use durability testing would not have to begin until 1985. This delay will allow EPA to improve upon the design of such a program in response to the broad range of comments. Further comment may be solicited and the final regulations are expected to be promulgated in the same time frame as the 1985 heavy-duty $NO_x$ emissions rulemaking. Staff analysis of all comments will be published at that time.

### *D. Allowable Maintenance*

Most of the comments challenged EPA's authority and justification to establish minimum "technologically necessary" maintenance intervals. At issue as well were the actual intervals that EPA proposed.

Our analysis finds adequate legal authority for EPA to make such an addition to the certification process. We were also not convinced that proper heavy-duty emission-related maintenance is widely performed; that market pressures work to improve the durability of emission-related components; and that future heavy-duty inspection and maintenance will remove the need for allowable maintenance provisions.

The comments claiming that the proposed maintenance intervals for injectors and turbochargers are improper were not based on technological arguments. Having concluded in our analysis that the concept itself of limiting maintenance is sound, we retained the proposed intervals (the technology for which

exists today). We reduced slightly the proposed spark plug change interval. Further analysis of heavy-duty catalyst technology, however, led to the retaining of the 100,000-mile interval.

The proposed requirements regarding what maintenance a manufacturer can do on durability engines have been relaxed. These regulations do not require that in-use performance of the maintenance be demonstrated. The critical maintenance item for 1984 technology is the replacement, if required, of the catalyst. However, the minimum maintenance interval of 100,000 miles is so close to the average useful life of a heavy-duty gasoline engine that our concerns that maintenance will not be performed in the field at 100,000 miles are minimal. This may not be the case with future technology. For example, when the anticipated tighter $NO_x$ standards are implemented, three-way catalyst systems are expected to be used. Unless the oxygen sensor for such systems can be designed to last for nearly the full useful life, this issue of the "likelihood that maintenance will be performed in-use" will need to be raised again.

Several commenters challenged the demonstration of in-use performance maintenance as being unwarranted. Yet the removal of these provisions comes not so much in response to specific comments as to an Agency decision that such requirements are not necessary at the present time. We believe that the provisions being delayed today are sound and expect that the need will arise for reproposal of the requirements as control technology changes.

*E. Parameter Adjustment*

The primary issue brought by the commenters against the parameter adjustment regulations was that no in-use evidence exists to indicate that heavy-duty engines are maladjusted in the field. Such information is not extensive, but it does exist; inspection/maintenance data from both Oregon and New Jersey points toward significant maladjustment of heavy-duty engines. The similarity between the parameters of light-duty gasoline engines and heavy-duty gasoline engines also supports the conclusions reached regarding the maladjustment of heavy-duty engines.

We have made only slight changes to the regulations; they are in response to comments directed at the light-duty provisions, comments which have led to several technical amendments. These regulations have been adjusted to match the amended light-duty regulations.

*F. Selective Enforcement Auditing*

EPA had proposed a more stringent "follow-up" sampling plan for testing after suspension or revocation of a certificate of conformity. This plan imposed a greater testing burden than the proposed initial plan in order to reduce the probability that a manufacturer will pass the audit even though the true failure rate is greater than the AQL. EPA justified the increased burden of the follow-up plan on the basis of its expectation that engines are no longer in compliance, as evidenced by the initial SEA failure, and therefore the "consumer's risk" must be reduced. Several manufacturers commented that the need for this increased stringency was unjustified and would actually serve as a disincentive to bringing nonconforming engines into compliance, since, in certain cases, a manufacturer may, because of economic considerations, choose to pay nonconformance penalties rather than bring these engines into compliance. Although EPA believes that its justification for the follow-up plan is valid, the agency is concerned about any potential disincentive to the election by manufacturers to remedy nonconforming engines. Since EPA believes that the manufacturer and consumer are still adequately protected by the initial 10% AQL sampling plan, the agency has deleted all references to the follow-up sampling plans in this final rule and will retain only the initial plans, as proposed.

EPA had also proposed that the annual limit on SEA test orders for heavy-duty gasoline engines be determined by dividing the manufacturer's projected sales by 30,000. For heavy-duty diesel manufacturers, the proposed divisor was 10,000. Future sales projections for the heavy-duty engine industry indicate that sales of heavy-duty gasoline engines and heavy-duty diesels will tend to equalize during the 1984–88 period. EPA has therefore set the annual limit divisor at 30,000 for both classes of engines in the final rule, in order not to discriminate between the two classes. In addition, EPA will count test orders issued on the basis of evidence of noncompliance against this annual limit, until such time as the limit is reached.

Some other changes of a minor nature have been made in response to comments, and discussion of these changes can be found in the Summary and Analysis of Comments document (Part II: Analysis of Minor Issues).

*G. Nonconformance Penalties/Production Compliance Auditing*

In the February 13, 1979 proposal, EPA stated that "* * * the proposed standards are practical and achievable by all manufacturers and that consequently no technological laggards need accommodating, no upper limit need be set and the nonconformance penalty would not be available to the manufacturers." EPA has not changed its basic position after analyzing the comments. In spite of this basic position, EPA has decided to repropose the nonconformance penalties and production compliance auditing provisions at a later date. The express purpose of making this option available would be to provide relief in those rare cases when compliance may not be achieved because of some unforeseen circumstance(s). Included in this reproposal will be "upper limits" and the marginal cost component of the general formula. EPA plans on issuing a NPRM in early 1980.

*H. Diesel Crankcase Emissions Control*

Several commenters were concerned that closing the crankcase of turbocharged diesels would foul the turbocharger and aftercooler, hurting their efficiency. We agree that this will happen if the oily crankcase emissions are ducted directly into the turbocharger; but a turbocharger/aftercooler bypassing control system is feasible. Such a system is currently not a very cost effective means of HC, CO, $NO_x$, or particulate control. For this reason we are postponing—for turbocharged diesels only—crankcase control requirements until they are shown to be cost effective (This may occur soon when a current crankcase nitrosamines research program is completed.).

*I. Leadtime*

We were able to combine the leadtime information submitted by some of the manufacturers to arrive at a detailed timetable for the gasoline and diesel manufacturers. The timetables showed that most manufacturers would have difficulty meeting the 1983 target date. Certification for the 1984 model year, however, allows a cushion, and accordingly we have chosen to implement these regulations on January 1, 1984, one model year later than we originally proposed.

*J. Feasibility*

Using information supplied by the commenters, generated by the Agency, and obtained through follow-up contacts with manufacturers, EPA has been able

to conclude that each major manufacturer of gasoline and diesel heavy-duty engines will be able to meet the emissions standards for all their engines by 1984. Our analysis was carried out on an engine-by-engine basis and shows that currently available approaches to emission control will be sufficient, even when the effects of a 10 percent AQL and a full-life useful life are considered.

*K. Economic Impact*

Again, information from the manufacturers allowed a more accurate analysis of the proposal, in this case the associated costs. Only a few commenters itemized the individual costs of equipment, testing, self auditing, etc. But such breakdowns were immensely helpful in accurately estimating the costs which would be expected for the rest of the manufacturers. We did not agree in each instance with the projected cost of an item, but a basis was provided for analysis. Of course, for the manufacturers which offered no cost estimates or breakdowns, the staff was obliged to make the estimates.

It is useful to describe the reasons why the aggregate cost has changed significantly from the NPRM. Primarily, a more accurate calculation of the costs due the use of unleaded fuel has resulted in a lower total cost. Three aspects of the analysis were improved: (1) we reduced the cost differential between leaded and unleaded gasoline from 5 cents/gallon to 3 cents/gallon (See the Regulatory Analysis); (2) a more accurate average useful life value for heavy-duty gasoline engines was used; and (3) we substituted a more realistic average vehicle fuel economy value.

On the other hand, the projected individual engine costs are greater now than in the proposal. This increase, primarily due to hardware costs, results largely from the improved analysis made possible by the comments.

ANTICOMPETITIVE EFFECTS: EPA does not anticipate that this regulation will result in any significant anticompetitive effects. Among the domestic engine manufacturers, the first price increases of their engines will be very similar. Some foreign manufacturers will need slightly larger increases because of their low U.S. sales, but even for them the price increases are not a large fraction of the new vehicle cost. Finally, independent parts manufacturers should not be adversely affected; their portion of the aftermarket parts market is not expected to decrease.

ADMINISTRATIVE DESIGNATION AND REGULATORY ANALYSIS: The Administrator has determined that this action is a "significant" regulation. We have prepared a comprehensive document entitled "Gaseous Emission Regulations for 1983 and Later Model Year Heavy-Duty Engines: Regulatory Analysis" to support the rulemaking and fulfill the requirements of Executive Order 12044 and Section 317 of the amended Clean Air Act. Anyone may review and reproduce this document in the EPA Central Docket Section (See "AVAILABILITY OF DOCUMENTS" below).

AVAILABILITY OF DOCUMENTS AND THE PUBLIC DOCKET: Materials relevant to this rulemaking have been assembled in Public Docket No. OMSAPC-78-4, U.S. Environmental Protection Agency, Central Docket Section, Room 2903B (EPA Library), Waterside Mall, 401 M Street, S.W., Washington, D.C. 20460. Such materials as regulatory support documents, comments, hearing transcripts, correspondence, the Summary and Analysis of Comments, and the Regulatory Analysis may be obtained by anyone from the docket. As provided in 40 CFR Part 2, the Agency may charge a reasonable fee for copying services. Additionally, single copies of the Summary and Analysis of Comments and the Regulatory Analysis are available from the Director, Emission Control Technology Division, 2565 Plymouth Road, Ann Arbor, MI 48105.

EVALUATION PLAN: EPA intends to review the effectiveness and need for continuation of the provisions contained in this action no more than five years after initial implementation of the final regulation. In particular, EPA will solicit comments from affected parties with regard to cost and other burdens associated with compliance and will also review data on the gaseous emissions from heavy-duty vehicles built before and after implementation of the regulations to determine how effective this measure has been.

REPORTING AND RECORDKEEPING REQUIREMENTS: This rulemaking will not impose significant additional reporting requirements or keeping of records. The SEA regulations do increase reporting requirements somewhat, but not greatly. Conversely, the requirements of the current durability testing will be removed.

Under EPA's recently established "sunset" policy, the reporting requirements of a regulation normally expire after five years unless action is taken to extend them. However, the leadtime required for these regulations will allow for only one year of actual implementation. Also, within the next five years the Agency will undertake a review of *all* of the reporting requirements associated with mobile source emission regulation, including those of this package. An additional review of the new reporting requirements of these regulations may not be necessary or useful.

Nevertheless, the need for future review cannot be determined at this time. Therefore, we establish in these regulations provisions for the automatic expiration of these requirements. But because of the four-year leadtime associated with these regulations, the five-year period will begin not at promulgation but at implementation (January 1, 1984). Thus, if the Agency does not establish the need for continuation, the new reporting and recordkeeping requirements of this rulemaking will expire after the 1988 model year.

Dated: December 21, 1979.

Douglas M. Costle,

*Administrator.*

Part 86 of Chapter I, Title 40 of the Code of Federal Regulations is proposed to be amended as follows:

Note.—This Final Rulemaking concerns only provisions of Part 86 applicable to heavy-duty engines. Certain of the amendments listed here, if read literally, might indicate that provisions currently in effect for light-duty trucks are to be retained. This is not the case. Another independent Notice of Proposed Rulemaking concerning only provisions of Part 86 applicable to light-duty trucks has been published at 44 FR 40784, July 12, 1979. Interested persons should consult that Notice regarding the light-duty truck amendments proposed to take effect January 1, 1983.

1. Paragraph (a) of § 86.077-2 is revised to read as follows:

**§ 86.077-2 Definitions.**

(a) The definitions in this section apply to this subpart and also to Subparts B, D, H, I, J, N, O, and P of this part.

* * * * *

2. Paragraph (a) of § 86.078-3 is revised to read as follows:

**§ 86.078-3 Abbreviations.**

(a) The abbreviations in this section apply to this subpart and also to Subparts B, D, H, I, J, N, O and P of this part and have the following meanings:

* * * * *

2a. The following sections are added to the table of contents under Subpart A:

## Subpart A—General Provisions for Emission Regulations for 1977 and Later Model Year New Light Duty Vehicles, 1977 and Later Model Year New Light-Duty Trucks, and for 1977 and Later Model Year New Heavy-Duty Engines

* * * * *

Sec.

86.084–2 Definitions.
86.084–4 Section numbering; construction.
86.084–5 General standards; increase in emissions; unsafe conditions.
86.084–10 Emissions standards for 1984 and later model year gasoline-fueled heavy-duty engines.
86.084–11 Emission standards for 1984 diesel heavy-duty engines.
86.084–21 Application for certification.
86.084–22 Approval of application for certification; test fleet selections; determinations of parameters subject to adjustment for certification and Selective Enforcement Audit and Production Compliance Audit, adequacy of limits, and physically adjustable ranges.
86.084–23 Required data.
86.084–24 Test vehicles and engines.
86.084–25 Maintenance.
86.084–26 Mileage and service accumulation; emission measurements.
86.084–27 Special test procedures.
86.084–28 Compliance with emission standards.
86.084–29 Testing by the Administrator.
86.084–30 Certification.
86.084–35 Labeling.
86.084–38 Maintenance instructions.
86.084–39 Automatic expiration of reporting and recordkeeping requirements.
86.085–11 Emission standards for 1985 and later model year diesel heavy-duty engines.

3. A new § 86.084–2 is added and reads as follows:

### § 86.084–2 Definitions.

The following definitions apply beginning with the 1984 model year. Section 86.080–2 remains effective excepting those definitions which are hereby superseded.

A "maximum torque curve" is a plot of maximum engine torque versus engine speed, also known as an "engine map."

The "measured rated rpm" is the highest engine speed at which the maximum horsepower occurs as derived from the maximum torque curve, or an engine speed specified by the manufacturer. This specified rated speed must be more than 100 rpm higher than the highest engine speed at which maximum horsepower is observed to occur and the horsepower observed at this specified speed must be at least 50 percent of the maximum observed during the engine map.

The "high idle speed" for a diesel engine means the governed speed at no load.

"Curb idle transmission torque" is the torque observed at the flywheel of a heavy-duty engine coupled with an automatic transmission, with the engine running at the manufacturer's specified curb idle speed, the transmission in gear, and the output shaft stalled.

"Integrated brake horsepower" is the total work done by an engine during a transient test, calculated by the incremental summing of brake horsepower-hour segments.

"Scheduled maintenance" means any adjustment, repair, removal, disassembly, cleaning, or replacement of vehicle components or systems which is performed on a periodic basis to prevent part failure or vehicle (if the engine were installed in a vehicle) malfunction, or anticipated as necessary to correct an overt indication of vehicle malfunction or failure for which periodic maintenance is not appropriate.

"Unscheduled maintenance" means any adjustment, repair, removal, disassembly, cleaning, or replacement of vehicle components or systems which is performed to correct a part failure or vehicle (if the engine were installed in a vehicle) malfunction which was not anticipated.

"Useful life" means:

(a) For light-duty vehicles and light-duty trucks a period of use of 5 years or 50,000 miles, whichever first occurs.

(b)(1) For a heavy-duty engine family, the average period of use up to engine retirement or rebuild, whichever occurs first, as determined by the manufacturer under Section 86.084–21(b)(4)(ii)(B).

(2) For a specific heavy-duty engine, the period of use represented by the first occurring of the following:

(i) The engine reaches the point of needing to be rebuilt, according to the criteria established by the manufacturer under § 86.084–21(b)(4)(ii)(C), or

(ii) The engine reaches its engine family's useful life.

(3) If the useful life of a specific heavy-duty engine is found to be less than 5 years or 50,000 miles (or the equivalent), the useful life shall be a period of use of 5 years or 50,000 miles (or the equivalent), whichever occurs first, as required by section 202(d)(2) of the Act.

"Non-emission related maintenance" means that maintenance which does not substantially affect emissions or which does not have a lasting effect on the deterioration of the vehicle or engine with respect to emissions once the maintenance is performed at any particular date.

"Emission-related maintenance" means that maintenance which does substantially affect emissions or which is likely to have a lasting effect on the deterioration of the vehicle or engine with respect to emissions, even if the maintenance is performed at some time other than that which is recommended.

4. A new 86.084–4 is added and reads as follows:

### § 86.084–4 Section numbering; construction.

(a)(1) *Section numbering.* (1) The model year of initial applicability is indicated by the last two digits of the 5-digit group. A section remains in effect for subsequent model years until it is superseded. The number following the hypen designates what previous section is replaced by a future regulation.

*Examples:* Section 86.077–6 applies to the 1977 and subsequent model years until superseded. If a § 86.080–6 is promulgated it would take effect with the 1980 model year; § 86.077–6 would not apply after the 1979 model year. Section 86.077–10 would be replaced by § 86.078–10 beginning with the 1978 model year.

(2) Where a section still in effect references a section that has been superseded, the reference shall be interpreted to mean the superseding section.

(b) *Construction.* Except where indicated, the language in this subpart applies to both vehicles and engines. In many instances language referring to engines is enclosed in parentheses and immediately follows the language discussing vehicles.

5. A new 86.084–5 is added and reads as follows:

### § 86.084–5 General standards; increase in emissions; unsafe conditions.

(a)(1) Every new motor vehicle (or new motor vehicle engine) manufactured for sale, sold, offered for sale, introduced, or delivered for introduction to commerce, or imported into the United States for sale or resale which is subject to any of the standards prescribed in this subpart shall be covered by a certificate of conformity issued pursuant to §§86.081–21, 86.081–22, 86.079–23, and §§ 86.079–29 through 86.079–34.

(2) No heavy-duty vehicle manufacturer shall take any of the actions specified in section 203(a)(1) of the Act with respect to any gasoline-fueled or Diesel heavy-duty vehicle which uses an engine which has not been certified as meeting applicable standards. Each heavy-duty vehicle manufacturer shall provide to the Administrator prior to the beginning of each model year a statement signed by

an authorized representative which includes the following information:

(i) A description of the vehicles which will be produced subject to this section;

(ii) Identification of the engines used in the vehicles;

(iii) Projected sales data on each vehicle-engine combination;

(iv) A statement that the engines will not be modified by the vehicle manufacturer or a detailed specification of any changes which will be made. Changes made solely for the purpose of mounting an engine in a vehicle need not be included.

(v) A statement that the engine maintenance instruction supplied by the engine manufacturer, in compliance with § 86.079–38, will be furnished to the ultimate purchaser. If these maintenance instructions are modified, a detailed description of the modifications and a justification for each must be provided to the Administrator for review. The Administrator will notify the manufacturer of the determination whether the modified instructions are reasonable and necessary to assure proper functioning of the emission control system.

(b)(1) Any system installed on or incorporated in a new motor vehicle (or new motor vehicle engine) to enable such vehicle (or engine) to conform to standards imposed by this subpart

(i) Shall not in its operation or function cause the emission into the ambient air or any noxious or toxic substance that would not be emitted in the operation of such vehicle (or engine) without such system, except as specifically permitted by regulation; and

(ii) Shall not in its operation, function, or malfunction result in any unsafe condition endangering the motor vehicle, its occupants, or persons or property in close proximity to the vehicle.

(2) In establishing the physically adjustable range of each adjustable parameter on a new motor vehicle (or new motor vehicle engine), the manufacturer shall ensure that, taking into consideration the production tolerances, safe vehicle driveability characteristics are available within that range, as required by section 202(a)(4) of the Clean Air Act.

(3) Every manufacturer of new motor vehicles (or new motor vehicle engines) subject to any of the standards imposed by this subpart shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motor vehicles (or motor vehicle engines) in accordance with good engineering practice to ascertain that such test vehicles (or test engines) will meet the requirements of this section for the useful life of the vehicle (or engine).

6. A new § 86.084–10 is added and reads as follows:

**§ 86.084–10 Emission standards for 1984 and later model year gasoline-fueled heavy-duty engines.**

(a)(1) Exhaust emissions from new 1984 and later model year gasoline-fueled heavy-duty engines shall not exceed the following:

(i) *Hydrocarbons.* 1.3 grams per brake horsepower hour, as measured under transient operating conditions.

(ii) *Carbon monoxide.* (a) 15.5 grams per brake horsepower hour, as measured under transient operating conditions.

(B) 0.47 percent of the exhaust gas flow at curb idle.

(iii) *Oxides of nitrogen.* 10.7 grams per brake horsepower hour, as measured under transient operating conditions.

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust emitted over operating schedules set forth in Subparts N or P and measured and calculated in accordance with those procedures.

(b) [Reserved]

(c) No crankcase emissions shall be discharged into the ambient atmosphere from any new 1984 model year gasoline-fueled heavy-duty engine.

(d) Every manufacturer of new motor vehicle engines subject to the standards prescribed in this section shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motor vehicle engines in accordance with applicable procedures in Subparts N or P of this part to ascertain that such test engines meet the requirements of paragraphs (a) and (c) of this section.

7. A new § 86.084–11 is added and reads as follows:

**§ 86.084–11 Emission standards for 1984 diesel heavy-duty engines.**

(a)(1) Exhaust emissions from new 1984 model year diesel heavy-duty engines shall not exceed the following:

(i) *Hydrocarbons.* (A) 1.3 grams per brake horsepower hour, as measured under transient operating conditions (Subpart N), or

(B) 0.5 grams per brake horsepower hour, as measured under steady-state operating conditions (Subpart D).

(ii) *Carbon monoxide.* (A) 15.5 grams per brake horsepower hour, as measured under either transient operating conditions (Subpart N) or under steady-state operating conditions (Subpart D).

(iii) *Oxides of nitrogen.* (A) 10.7 grams per brake horsepower hour, as measured under transient operating conditions (Subpart N) or

(B) 9.0 grams per brake horsepower-hour as measured steady-state operating conditions (Subpart D).

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust over operating schedules as set forth in Subparts N, D, or P and measured and calculated in accordance with those procedures.

(b)(1) The opacity of smoke emissions from new 1984 and later model year diesel heavy-duty engines shall not exceed:

(i) 20 percent during the engine acceleration mode.

(ii) 15 percent during the engine lugging mode.

(iii) 50 percent during the peaks in either mode.

(2) The standards set forth in paragraph (b)(1) of this section refer to the exhaust smoke emissions generated under the conditions set forth in Subpart I of this part and measured and calculated in accordance with those procedures.

(c) No crankcase emissions shall be discharged into the ambient atmosphere from any new 1984 model year naturally-aspirated diesel heavy-duty engine. This provision does not apply to turbocharged engines.

(d) Every manufacturer of new motor vehicle engines subject to the standards prescribed in this section shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motor vehicle engines in accordance with applicable procedures in Subparts I, N, D, or P of this part to ascertain that such test engines meet the requirements of paragraphs (a), (b) and (c) of this section.

8. A new § 86.084–21 is added and reads as follows:

**§ 86.084–21 Application for certification.**

(a) A separate application for a certificate of conformity shall be made for each set of standards and each class of new motor vehicles or new motor vehicle engines. Such application shall be made to the Administrator by the manufacturer and shall be updated and corrected by amendment.

(b) The application shall be in writing, signed by an authorized representative of the manufacturer, and shall include the following:

(1)(i) Identification and description of the vehicles (or engines) covered by the application and a description of their engine (vehicles only), emission control system and fuel system components. This shall include a detailed description of each auxiliary emission control device (AECD) to be installed in or on any certification test vehicle (or certification test engine).

(ii)(A) The manufacturer shall provide to the Administrator in the preliminary application for certification:

(1) A list of those parameters which are physically capable of being adjusted (including those adjustable parameters to which access is difficult); which are present on any device, system or assembly described in the application; and which may affect emissions.

(2) A specification of the manufacturer's intended physically adjustable range of each such parameter, and the production tolerances of the limits or stops used to establish the physically adjustable range;

(3) A description of the limits or stops used to establish the manufacturer's intended physically adjustable range of each adjustable parameter, or any other means used to inhibit adjustment;

(4) The nominal or recommended setting, and the associated production tolerances, for each such parameter.

(B) The manufacturer may provide, in the preliminary application for certification, information relating to why certain parameters are not expected to be adjusted in actual use and to why the physical limits or stops used to establish the physically adjustable range of each parameter, or any other means used to inhibit adjustment, are expected to be effective in preventing adjustment of parameters on in-use vehicles to settings outside the manufacturer's intended physically adjustable ranges. This may include results of any tests to determine the difficulty of gaining access to an adjustment or exceeding a limit as intended or recommended by the manufacturer.

(C) The Administrator may require to be provided detailed drawings and descriptions of the various emission related components, and/or hardware samples of such components, for the purpose of making his determination of which vehicle or engine parameters will be subject to adjustment for certification and Selective Enforcement Audit (and Production Compliance Audit for heavy-duty engines) and of the physically adjustable range for each such vehicle or engine parameter.

(2) Projected U.S. sales data sufficient to enable the Administrator to select a test fleet representative of the vehicles (or engines) for which certification is requested.

(3) A description of the test equipment and fuel proposed to be used.

(4)(i) A description of the test procedures to be used to establish the evaporative emission deterioration factors required to be determined and supplied in § 86.084-23(b)(2).

(ii)(A) A description of the test procedures to be used to establish the exhaust emission deterioration factors for heavy-duty engines required to be determined and supplied in § 86.084-23(1)(ii).

(B)(1) A statement of the useful life of each heavy-duty engine family up to engine retirement or rebuild (whichever occurs first) as determined by the manufacturer on the basis of the following:

(i) For existing engine families, survey information on in-service engines or

(ii) For new engine families, durability testing of prototype engines or a combination of bench-type component life evaluations and survey information on similar previous engines.

(2) The manufacturer shall not determine an engine family's useful life to be less than the basic period of the mechanical warranty on the engine assembly. This useful life shall be expressed as a period of engine or vehicle operation or as an equivalent vehicle mileage (or both) and shall be consistent with the rebuild criteria specified in paragraph (b)(4)(ii)(C) of this paragraph. The manufacturer shall include in the application the data or information on which it based its determination of the useful life.

(C) For each heavy-duty engine family, a statement of the criteria which are to be used in determining the need for engine rebuild and their critical values, including the following:

(1) The minimum cylinder compression for any one cylinder and for any two cylinders, in pounds per square inch. Compression shall be measured without the addition of oil or another fluid into the cylinder.

(2) The maximum rate of engine lubricant oil usage by the engine, in quarts per 1,000 miles (or quarts per 30 hours).

(3) The maximum mass of foreign metal in the crankcase, in grams per quart of crankcase oil.

(4) Any other measurable indicator(s) of engine condition approved by the Administrator and the critical value(s) which signal(s) the need for a rebuild.

(5) A statement of recommended maintenance and procedures necessary to assure that the vehicles (or engines) covered by a certificate of conformity in operation conform to the regulations, and a description of the program for training of personnel for such maintenance, and the equipment required.

(6) At the option of the manufacturer, the proposed composition of the emission-data or durability-data test fleet.

(c) Complete copies of the application and of any amendments thereto, and all notifications under §§ 86.079-32, 86.079-33, and 86.079-34 shall be submitted in such multiple copies as the Administrator may require.

(d) Incomplete light-duty trucks shall have a maximum completed curb weight and maximum completed frontal area specified by the manufacturer.

9. A new § 86.084-22 is added and reads as follows:

**§ 86.084-22 Approval of application for certification; test fleet selections; determinations of parameters subject to adjustment for certification and Selective Enforcement Audit and Production Compliance Audit, adequacy of limits, and physically adjustable ranges.**

(a) After a review of the application for certification and any other information which the Administrator may require, the Administrator may approve the application and select a test fleet in accordance with § 86.080-24.

(b) The Administrator may disapprove in whole or in part an application for certification for reasons including incompleteness, inaccuracy, inappropriate proposed mileage (or service) accumulation procedures, test equipment, or fuel, and incorporation of defeat devices in vehicles (or on engines) described by the application.

(c) Where any part of an application is rejected, the Administrator shall notify the manufacturer in writing and set forth the reasons for such rejection. Within 30 days following receipt of such notification, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the Administrator's determinations, and data in support of such objections. If, after the review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, he shall provide the manufacturer a hearing in accordance with § 86.078-6 with respect to such issue.

(d)(1) The Administrator does not approve the test procedures for establishing the evaporative emission deterioration factors. The manufacturer shall submit the procedures as required in § 86.084-21(b)(4)(i) prior to the Administrator's selection of the test fleet under § 86.084-24(b)(1) and if such procedures will involve testing of durability-data vehicles selected by the Administrator or elected by the manufacturer under § 86.084-24(c)(1), prior to initiation of such testing.

(2) The Administrator does not approve the test procedures for establishing exhaust emission deterioration factors for heavy-duty

engines, the manufacturer's determination of the useful life of its heavy-duty engines, nor the manufacturer's determination of the values of the rebuild criteria. The manufacturer shall submit these procedures and determinations as required in § 86.084–21(b)(4)(ii) prior to the initiation of durability testing.

(e) When the Administrator selects emission-data vehicles (engines) for the test fleet, he will at the same time determine those vehicle or engine parameters which will be subject to adjustment for certification, Selective Enforcement Audit and Production Compliance Audit testing, the adequacy of the limits, stops, seals, or other means used to inhibit adjustment, and the resulting physically adjustable ranges for each such parameter and notify the manufacturer of his determinations.

(1)(i) The Administrator may determine to be subject to adjustment the idle fuel-air mixture, idle speed, and initial spark timing parameters on gasoline-fueled vehicles (engines) (carbureted or fuel injected); the choke valve action parameter(s) on carbureted, gasoline-fueled vehicles (engines); or any parameter on any vehicle (engine) (diesel or gasoline-fueled) which is physically capable of being adjusted, may significantly affect emissions, and was not present on the manufacturer's vehicles (engines) in the previous model year in the same form and function.

(ii) The Administrator may, in addition, determine to be subject to adjustment any other parameters on any vehicle or engine which is physically capable of being adjusted and which may significantly affect emissions. However, the Administrator may do so only if he has previously notified the manufacturer that he might do so and has found, at the time he gave this notice, that the intervening period would be adequare to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period. In no event will this notification be given later than September 1 of the calendar year two years prior to the model year.

(iii) In determining the parameters subject to adjustment the Administrator will consider the likelihood that, for each of the parameters listed in paragraphs (e)(1)(i) and (e)(1)(ii) of this section, settings other than the manufacturer's recommended setting will occur on in-use vehicles (engines). In determining likelihood, the Administrator may consider such factors as, but not limited to, information contained in the preliminary application, surveillance information from similar in-use vehicles (engines), the difficulty and cost of gaining access to an adjustment, damage to the vehicle (engine) if an attempt is made to gain such access and the need to replace parts following such attempt, and the effect of settings other than the manufacturer's recommended setting on vehicle (engine) performance characteristics including emission characteristics.

(2)(i) The Administrator shall determine a parameter to be adequately inaccessible or sealed if:

(A) In the case of an idle mixture screw, the screw is recessed within the carburetor casting and sealed with lead, thermosetting plastic, or an inverted elliptical spacer or sheared off after adjustment at the factory, and the inaccessibility is such that the screw cannot be accessed and/or adjusted with simple tools in one-half hour.

(B) In the case of a choke bimetal spring, the plate covering the bimetal spring is riveted or welded in place, or held in place with nonreversible screws.

(C) In the case of a parameter which may be adjusted elongating or bending adjustable members (e.g., the choke vacum break), the elongation of the adjustable member is limited by design or, in the case of a bendable member, the member is constructed of a material which when bent would return to its original shape after the force is removed (plastic or spring steel materials).

(D) In the case of any parameter, the manufacturer demonstrates that adjusting the parameter, to settings other than the manufacturer's recommended setting takes more than one-half hour or costs more than $20 (1978 dollars).

(ii) The Administrator shall determine a physical limit or stop to be an adequate restraint on adjustability if:

(A) In the case of a threaded adjustment, the threads are terminated, pinned or crimped so as to prevent additional travel without breakage or need for costly repairs.

(B) The adjustment is ineffective at the end of the limits of travel regardless of additional forces or torques applied to the adjustment.

(C) The manufacturer demonstrates that travel or rotation limits cannot be exceeded with the use of simple and inexpensive tools (screwdriver, pliers, open-end or box wrenches, etc.) without incurring significant and costly damage to the vehicle (engine) or control system or without taking more than one-half hour or costing more than $20 (1978 dollars).

(iii) If manufacturer service manuals or bulletins describe routine procedures for gaining access to a parameter or for removing or exceeding a physical limit, stop, seal or other means used to inhibit adjustment, or if surveillance data indicate that gaining access, removing, or exceeding is likely, paragraphs (e)(2)(i) and (e)(2)(ii) of this section shall not apply for that parameter.

(iv) In determining the adequacy of a physical limit, stop, seal, or other means used to inhibit adjustment of a parameter not covered by paragraph (e)(2)(i) or (e)(2)(ii) of this section, the Administrator will consider the likelihood that it will be circumvented, removed, or exceeded on in-use vehicles. In determining likelihood, the Administrator may consider such factors as, but not limited to, information contained in the preliminary application; surveillance information from similar in-use vehicles (engines); the difficulty and cost of circumventing, removing, or exceeding the limit, stop, seal, or other means; damage to the vehicle (engine) if an attempt is made to circumvent, remove, or exceed it and the need to replace parts following such attempt; and the effect of settings beyond the limit, stop, seal, or other means on vehicle (engine) performance characteristics other than emission characteristics.

(3) The Administrator shall determine two physically adjustable ranges for each parameter subject to adjustment:

(i)(A) In the case of a parameter determined to be adequately inaccessible or sealed, the Administrator may include within the physically adjustable range applicable to testing under this subpart (certification testing) all settings within the production tolerance associated with the nominal setting for that parameter, as specified by the manufacturer in the preliminary application for certification.

(B) In the case of other parameters, the Administrator shall include within this range all settings within physical limits or stops determined to be adequate restraints on adjustability. The Administrator may also include the production tolerances on the location of these limits or stops when determining the physically adjustable range.

(ii)(A) In the case of a parameter determined to be adequately inaccessible or sealed, the Administrator shall include within the physically adjustable range applicable to testing under Subpart G or K (Selective Enforcement Audit and Production Compliance Audit for heavy-duty engines) only the actual settings to which the parameter is adjusted during production.

(B) In the case of other parameters, the Administrator shall include within this range all settings within physical

limits or stops determined to be adequate restraints on adjustability, as they are actually located on the test vehicle (engine).

(f)(1) If the manufacturer submits the information specified in § 86.084–21(b)(1)(ii) in advance of its full preliminary application for certification, the Administrator shall review the information and make the determinations required in paragraph (e) of this section within 90 days of the manufacturer's submittal.

(2) The 90-day decision period is exclusive of the elapsed time during which EPA may request additional information from manufacturers regarding an adjustable parameter and the receipt of the manufacturers' response(s).

(g) Within 30 days following receipt of notification of the Administrator's determinations made under paragraph (e) of this section, the manufacturer may request a hearing on the Administrator's determinations. The request shall be in writing, signed by an authorized representative of the manufacturer, and shall include a statement specifying the manufacturer's objections to the Administrator's determinations, and data in support of such objections. If, after review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, he shall provide the manufacturer a hearing in accordance with § 86.078–6 with respect to such issue.

10. A new § 86.084–23 is added and reads as follows:

**§ 86.084-23 Required data.**

(a) The manufacturer shall perform the tests required by the applicable test procedures, and submit to the Administrator the following information: *Provided, however,* That:

(1) If requested by the manufacturer, the Administrator may waive any requirement of this section for testing of vehicles (or engines) for which emission data are available, or will be made available, under the provisions of § 86.079–29, or

(2) If requested by the manufacturer, the Administrator may waive any requirement of this section for testing of vehicles at zero kilometers of operation.

(b)(1)(i) Exhaust emission durability data on such light-duty vehicles and light-duty trucks tested in accordance with applicable test procedures and in such numbers as specified, which will show the performance of the systems installed on or incorporated in the vehicle for extended mileage, as well as a record of all pertinent maintenance performed on the test vehicles.

(ii) Exhaust emission deterioration factors for heavy-duty engines and all test data that are derived from the testing described under § 86.084–21(b)(4)(ii)(A) as well as a record of all pertinent maintenance. Such testing shall be designed and conducted in accordance with good engineering practice to assure that the engines covered by a certificate issued under § 86.084–30 will meet the emission standards in § 86.084–10 or § 86.084–11, as appropriate, in actual use for the useful life of the engine.

(2) Evaporative emission deterioration factors for each evaporative emission family-evaporative emission control system combination and all test data that are derived from testing described under § 86.084–21(b)(4)(i) designed and conducted in accordance with good engineering practice to assure that the vehicles covered by a certificate issued under § 86.079–30 will meet the evaporative emission standards in § 86.081–8 or § 86.081–9, as appropriate, for the useful life of the vehicle.

(c) *Emission data.*—(1) *Certification vehicles.* (i) Emission data on such vehicles tested in accordance with the applicable test procedures and in such numbers as specified, which will show their emissions after zero kilometers (zero miles) and 6,436 kilometers (4,000 miles) operation.

(ii) Emission data on those vehicles selected under § 86.079–24(b)(1)(v) and § 86.079–24(b)(1)(vii)(D) and tested in accordance with the applicable test procedures of this subpart and in such numbers as therein specified, which shall be tested at zero kilometers (zero miles) at any altitude, and under high-altitude conditions after 6,436 kilometers (4,000 miles) of operation at any altitude.

(2) *Certification engines.* Emission data on such engines tested in accordance with applicable emission test procedures and in such numbers as specified, which will show their emissions after 125 hours of operation. A zero-hour test may be performed after the engine has been approved by the Administrator to begin service accumulation.

(d) A statement that the vehicles (or engines) for which certification is requested conform to the requirements in § 86.078–5(b), and that the descriptions of tests performed to ascertain compliance with the general standards in § 86.078–5(b), and the data derived from such tests, are available to the Administrator upon request.

(e)(1) A statement that the test vehicles (or test engines) with respect to which data are submitted to demonstrate compliance with §§ 86.078–8, 86.079–9, 86.079–10, 86.079–11, 86.080–10, or 86.080–11, as applicable, are in all material respects as described in the manufacturer's application for certification, have been tested in accordance with the applicable test procedures utilizing the fuels and equipment described in the application for certification and that on the basis of such tests the vehicles (or engines) conform to the requirements of this part. If such statements cannot be made with respect to any vehicle (or engine) tested, the vehicle (or engine) shall be identified, and all pertinent data relating thereto shall be supplied to the Administrator. If, on the basis of the data supplied and any additional data as required by the Administrator, the Administrator determines that the test vehicle (or test engine) was not as described in the application for certification or was not tested in accordance with the applicable test procedures utilizing the fuels and equipment as described in the application for certification, the Administrator may make the determination that the vehicle (or engine) does not meet the applicable standards. The provisions of § 86.079–30(b) shall then be followed.

(2) For evaporative emission durability and heavy-duty engine exhaust emission durability, the statement of compliance with paragraph (b)(1) or (b)(2) of this section.

11. A new § 86.084–24 added and reads as follows:

**§ 86.084-24 Test vehicles and engines.**

(a)(1) The vehicles or engines covered by an application for certification will be divided into groupings of engines which are expected to have similar emission characteristics throughout their useful life. Each group of engines with similar emission characteristics shall be defined as a separate engine family.

(2) To be classed in the same engine family, engines must be identical in all the following respects:

(i) The cylinder bore center-to-center dimensions.

(ii) The dimension from the centerline of the crankshaft to the centerline of the camshaft.

(iii) The dimension from the centerline of the crankshaft to the top of the cylinder block head face.

(iv) The cylinder block configuration (air cooled or water cooled; L–6, 90°, V–8, etc.).

(v) The location of the intake and exhaust valves (or ports) and the valve (or port) sizes (within a ⅛-inch range on the valve head diameter or within 10 percent on the port area.)

(vi) The method of air aspiration.

(vii) The combustion cycle.

(viii) Catalytic converter characteristics.

(ix) Thermal reactor characteristics.

(x) Type of air inlet cooler (e.g., intercoolers and after-coolers) for diesel heavy-duty engines.

(3)(i) Engines identical in all the respects listed in paragraph (a)(2) of this section may be further divided into different engine families if the Administrator determines that they may be expected to have different emission characteristics. This determination will be based upon a consideration of the following features of each engine:

(A) The bore and stroke.

(B) The surface-to-volume ratio of the nominally dimensioned cylinder at the top dead center positions.

(C) The intake manifold induction port size and configuration.

(D) The exhaust manifold port size and configuration.

(E) The intake and exhaust valve sizes.

(F) The fuel system.

(G) The camshaft timing and ignition or injection timing characteristics.

(ii) Heavy-duty engines produced in different model years and distinguishable in the respects listed in paragraph (a)(2) of this section shall be treated as belonging to a single engine family if the Administrator requires it, after determining that the engines may be expected to have similar emission deterioration characteristics.

(4) Where engines are of a type which cannot be divided into engine families based upon the criteria listed in paragraphs (a) (2) and (3) of this section, the Administrator will establish families for those engines based upon those features most related to their emission characteristics.

(5) The gasoline-fueled vehicles covered by an application for certification will be divided into groupings which are expected to have similar evaporative emission characteristics throughout their useful life. Each group of vehicles with similar evaporative emission characteristics shall be defined as a separate evaporative emission family.

(6) To be classed in the same evaporative emission family, vehicles must be similar with respect to:

(i) Type of vapor storage device (e.g., canister, air cleaner, crankcase).

(ii) Basic canister design.

(iii) Fuel system.

(7) Where vehicles are of a type which cannot be divided into evaporative emission families based on the criteria listed above, the Administrator will establish families for those vehicles based upon the features most related to their evaporative emission characteristics.

(b) *Emission data.*—(1) *Emission-data vehicles.* Paragraph (b)(1) of this section applies to light-duty vehicle and light-duty truck emission-data vehicles.

(i) Vehicles will be chosen to be operated and tested for emission data based upon the engine family groupings. Within each engine family, the requirements of this paragraph must be met.

(ii) Vehicles for each engine family will be divided into engine displacement-exhaust emission control system combinations as applicable. A projected sales volume will be established for each combination for the model year for which certification is sought. One vehicle of each combination will be selected in order of decreasing projected sales volume until 70 percent of the projected sales of a manufacturer's total production of vehicles of that engine family is represented, or until a maximum of four vehicles is selected. If any single combination represents over 70 percent, then two vehicles of that combination may be selected. The vehicle selected for each combination will be specified by the Administrator as to such features as engine code, transmission type, fuel system, and inertia weight class.

(iii) The Administrator may select a maximum of four additional vehicles within each engine family based upon features indicating that they may have the highest emission levels of the vehicles in that engine family. In selecting these vehicles, the Administrator will consider such features as the emission control system combination, induction system characteristics, ignition system characteristics, fuel system, rated horsepower, rated torque, compression ratio, inertia weight class, transmission options, and axle ratio.

(iv) If the vehicles selected in accordance with paragraphs (b)(1) (ii) and (iii) of this section do not represent each engine-system combination, then one vehicle of each engine-system combination not represented will be selected by the Administrator. The vehicle selected shall be of the engine displacement with the largest projected sales volume of vehicles with the control system combination in the engine family and will be designated by the Administrator as to such features as engine code, transmission type, fuel system, and inertia weight class.

(v) Within an engine family the Administrator may select one additional vehicle for each engine-system combination with which a manufacturer chooses to demonstrate compliance with applicable emission standards at high altitude.

(vi) The Administrator may combine testing requirements for any vehicle selected under paragraph (b)(1)(v) or (b)(1)(vii)(D) of this section with the testing requirements for any similar vehicle in the same engine-system combination selected under paragraph (b)(1) (ii), (iii) or (iv) of this section or any similar vehicle in the same engine-system, evaporative emission family, evaporative emission control system combination selected under paragraph (b)(1)(vii) (A) or (B) of this section. The testing requirements may be combined by the Administrator by requiring a vehicle selected for testing under paragraphs (b)(1) (ii), (iii), (iv), (vii)(A) or (vii)(B) of this section to be modifed (if necessary) after mileage accumulation and emission testing for the purpose of demonstrating compliance with § 86.078–23 (c)(1)(ii).

(vii)(A) Vehicles of each evaporative emission family will be divided into evaporative emission control systems. One vehicle of each evaporative emission control system within the evaporative emission family will be selected.

(B) The Administrator may select a maximum of four additional vehicles within each evaporative emission family based upon features indicating that they may have the highest evaporative emission levels of vehicles in that family.

(C) The Administrator may determine that the vehicles selected under paragraphs (b)(1) (ii) through (iv) of this section may be used to satisfy the requirements of paragraph (b)(1)(vii) (A) and (B) of this section.

(D) The Administrator may also select one additional vehicle for each evaporative emission control system within each evaporative family for those vehicles with which the manufacturer chooses to demonstrate compliance with applicable emission standards at high altitude.

(E) Vehicles selected under paragraph (b)(1)(v) of this section may be used to satisfy the requirements of paragraph (b)(1)(vii)(D) of this section.

(2) *Gasoline-fueled heavy-duty emission-data engines.* Paragraph (b)(2) of this section applies to gasoline-fueled heavy-duty engines.

(i) Engines will be chosen to be run for emission data based upon engine family groupings. Within each engine family, the requirements of this paragraph must be met.

(ii) Engines of each engine family will be divided into engine displacement-exhaust emission control system combinations. A projected sales volume

will be established for each combination for the applicable model year. One engine of each combination will be selected in order of decreasing projected sales volume until 70 percent of the projected sales of a manufacturer's total production of engines of that family is represented, or until a maximum of four engines is selected. The engines selected for each combination will be specified by the Administrator as to fuel system.

(iii) The Administrator may select a maximum of two additional engines within each engine family based upon features indicating that they may have the highest emission levels of the engines in that engine family. In selecting these engines, the Administrator will consider such features as the exhaust emission control system, induction system characteristics, ignition system characteristics, fuel system, rated horsepower, rated torque, and compression ratio.

(iv) If the engines selected in accordance with paragraphs (b)(2) (ii) and (iii) of this section do not represent each engine displacement-exhaust emission control system combination, then one engine of each engine displacement-exhaust emission control system combination not represented shall be selected by the Administrator.

(3) *Diesel heavy-duty emission-data engines.* Paragraph (b)(3) of this section applies to diesel heavy-duty emission-data vehicles.

(i) Engines will be chosen to be run for emission data based upon engine family groupings. Within each engine family, the requirements of this paragraph must be met.

(ii) Engines of each engine family will be divided into groups based upon their exhaust emission control systems. One engine of each engine system combination shall be run for smoke emission data and gaseous emission data. Either the complete gaseous emission test or the complete smoke test may be conducted first. Within each combination, the engine that features the highest fuel feed per stroke, primarily at the speed of maximum rated torque and secondarily at rated speed, will usually be selected. If there are military engines with higher fuel rates than other engines in the same engine system combinations, then one military engine shall also be selected. The engine with the highest fuel feed per stroke will usually be selected.

(iii) The Administrator may select a maximum of one additional engine within each engine-system combination based upon features indicating that it may have the highest emission levels of the engines of that combination. In selecting this engine, the Administrator will consider such features as the injection system fuel system, compression ratio, rated speed, rated horsepower, peak torque speed, and peak torque.

(c) *Durability data.*—(1) *Durability-data vehicles.* Paragraph (c)(1) of this section applies to light-duty vehicle and light-duty truck durability-data vehicles.

(i) A durability-data vehicle will be selected by the Administrator to represent each engine-system combination. The vehicle selected shall be of the engine displacement with the largest projected sales volume of vehicles with that control-system combination in that engine family and will be designated by the Administrator as to transmission type, fuel system, inertia weight class, and test weight.

(ii) A manufacturer may elect to operate and test additional vehicles to represent any engine-system combination. The additional vehicles must be of the same engine displacement, transmission type, fuel system and inertia weight class as the vehicle selected for that engine-system combination in accordance with the provisions of paragraph (c)(1)(i) of this section. Notice of an intent to operate and test additional vehicles shall be given to the Administrator not later than 30 days following notification of the test fleet selection.

(2) *Heavy-duty durability-data engines.* Paragraph (c)(2) of this section applies to engines, subsystems, or components used to establish deterioration factors for heavy-duty engines.

(i) The manufacturer shall select the engines, subsystems, or components to be used to determine exhaust emission deterioration factors for each engine-family control system combination. Whether engines, subsystems, or components are used, they shall be selected so that their emissions deterioration characteristics may be expected to represent those of in-use engines, based on good engineering judgment.

(ii) [Reserved]

(d) For purposes of testing under § 86.078–26 (a)(9), (b)(9) or (c)(11), the Administrator may require additional emission-data vehicles (or emission-data engines) and durability-data vehicles (or durability-data engines) identical in all material respects to vehicles (or engines) selected in accordance with paragraphs (b) and (c) of this section: *Provided,* That the number of vehicles selected shall not increase the size of either the emission-data fleet or the durability-data fleet by more than 20 percent or one vehicle, whichever is greater.

(e) Any manufacturer whose projected sales for the model year in which certification is sought is less than

(1) 2,000 gasoline-fueled light-duty vehicles, or

(2) 2,000 Diesel light-duty vehicles, or

(3) 2,000 gasoline-fueled light-duty trucks, or

(4) 2,000 Diesel light-duty trucks, or

(5) 2,000 gasoline-fueled heavy-duty engines, or

(6) 2,000 Diesel heavy-duty engines,

may request a reduction in the number of test vehicles (or engines) determined in accordance with the foregoing provisions of this section. The Administrator may agree to such lesser number as he determines would meet the objectives of this procedures.

(f) In lieu of testing an emission-data or durability data vehicle (or engine) selected under paragraph (b) or (c) of this section, and submitting data therefor, a manufacturer may, with the prior written approval of the Administrator, submit exhaust emission data and/or fuel evaporative emission data, as applicable on a similar vehicle (or engine) for which certification has previously been obtained or for which all applicable data required under § 86.084–23 has previously been submitted.

(g)(1) This paragraph applies to light-duty vehicles and light-duty trucks.

(2) Where it is expected that more than 33 percent of the vehicles in an engine family will be equipped with an optional item, the full estimated weight of that item shall be included, if required by the Administrator, in the curb weight computation for each vehicle available with that option in the engine family. Where it is expected that 33 percent or less of the vehicles in an engine family will be equipped with an item of optional equipment, no weight for that item will be added in computing curb weight. In the case of mutually exclusive options, only the weight of the heavier option will be added in computing curb weight. Optional equipment weighing less than 3 pounds per item need not be considered.

(3) Where it is expected that more than 33 percent of the vehicles in an engine family will be equipped with an item of optional equipment that can reasonably be expected to influence emissions, then such items of optional equipment shall actually be installed, unless specifically excluded by the Administrator, on all emission-data and durability-data vehicles in the engine family on which the option is intended to be offered in production. Optional equipment that can reasonably be

expected to influence emissions are the air conditioner, power steering, power brakes and other items determined by the Administrator.

(4) Optional equipment that can reasonably be expected to influence emissions which is utilized on 33 percent or less of the vehicles in the engine family shall not be installed on any vehicle in that engine family unless specifically required under this section.

12. A new § 86.084–25 is added and reads as follows:

**§ 86.084–25 Maintenance.**

(a) *Light-duty vehicles and light-duty trucks.* Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.

(1) Scheduled maintenance on the engine, emission control system, and fuel system of durability-data vehicles, selected by the Administrator or elected by the manufacturer under § 86.079–24(c)(1), shall be scheduled for performance during durability testing at the same mileage intervals that will be specified in the manufacturer's maintenance instructions furnished to the ultimate purchaser of the motor vehicle. Such maintenance shall be performed, except as provided in paragraph (a)(5)(iii) of this section, only under the following provisions:

(i) Schedules major engine tuneups to manufacturer's specifications may be performed no more frequently than every 12,500 miles of scheduled driving: *Provided,* That no tuneup may be performed after 45,000 miles of scheduled driving. A scheduled major engine tuneup shall be restricted to paragraph (a)(1)(i) (A) or (B) of this section, and shall be conducted in a manner consistent with service instructions and specifications provided by the manufacturer for use by customer service personnel.

(A) *For gasoline-fueled vehicles,* the following items may be inspected, replaced, cleaned, adjusted, and/or serviced as required:

(*1*) Ignition system.

(*2*) Cold starting enrichment system (includes fast idle-speed setting).

(*3*) Curb idle speed and air/fuel mixture.

(*4*) Drive belt tension on engine accessories.

(*5*) Valve lash.

(*6*) Inlet air and exhaust gas control valves.

(*7*) Engine bolt torque.

(*8*) Spark plugs.

(*9*) Fuel filter and air filter.

(*10*) Crankcase emission control system.

(*11*) Fuel evaporative emission control system.

(B) *For Diesel vehicles,* a major engine tuneup shall be restricted to the following:

(*1*) Adjust low idle speed.

(*2*) Adjust valve lash if required.

(*3*) Adjust injector timing.

(*4*) Adjust governor.

(*5*) Clean and service injector tips.

(*6*) Adjust drive belt tension on engine accessories.

(*7*) Check engine bolt torque and tighten as required.

(ii) Change of engine and transmission oil, and change or service of oil filter will be allowed at the same mileage intervals that will be specified in the manufacturer's maintenance instructions.

(iii) Readjustment of the engine idle speed (curb idle and fast idle) may be performed, in addition to adjustment during scheduled major engine tuneups, once during the first 5,000 miles of vehicle operation.

(2)(i) *For gasoline-fueled vehicles,* unscheduled maintenance on the engine, emission control system, and fuel system of durability vehicles may be performed, except as provided in paragraph (a)(5)(i) of this section, only under the following provisions:

(A) Any persistently misfiring spark plug may be replaced, in addition to replacement at scheduled major engine tuneup points.

(B) Readjustment of the engine cold starting enrichment system may be performed if there is a problem of stalling or if there is visible black smoke.

(C) Readjustment of the engine idle-speed (curb idle and fast idle) may be performed, in addition to that performed as scheduled maintenance under paragraph (a)(1) of this section, if the idle speed exceeds the manufacturer's recommended idle speed by 300 r.p.m. or more, or if there is a problem of stalling.

(D) The idle mixture may be reset, other than during scheduled major engine tuneups, only with the advance approval of the Administrator.

(ii) *For Diesel vehicles,* unscheduled maintenance on the engine emission control system, and fuel system of durability-data vehicles may be performed except as provided in paragraph (a)(5)(i) of this section, only under the following provisions:

(A) Injectors may be changed if a persistent misfire is detected.

(B) Readjustment of the engine idle speed (curb idle and fast idle) may be performed in addition to that performed as scheduled maintenance under paragraph (a)(1) of this section, if the idle speed exceeds the manufacturer's recommended idle speed by 300 r.p.m. or more, or if there is a problem of stalling.

(3) An exhaust gas recirculation (EGR) system may be serviced during durability testing only under one of the following provisions:

(i) Manufacturers may schedule service to the EGR system at the scheduled major engine tuneup, if an audible and/or visual signal approved by the Administrator alerts the vehicle operator to the need for EGR system maintenance at each of those mileage points. One additional servicing may also be performed as unscheduled maintenance if there is an overt indication of malfunction and if the malfunction or repair of the malfunction does not render the test vehicle unrepresentative of vehicles in use.

(ii) Manufacturers may service the EGR system as unscheduled maintenance a maximum of three times during the 50,000 miles if failure of the EGR system activates an audible and/or visual signal approved by the Administrator which alerts the vehicle operator to the need for EGR system maintenance. One additional servicing may also be performed as unscheduled maintenance if there is an overt indication of malfunction and if the malfunction or repair of the malfunction does not render the test vehicle unrepresentative of vehicles in use.

(iii) Manufacturers may service the EGR system a maximum of three times during the 50,000 miles either at a scheduled major engine tuneup point or as unscheduled maintenance, if an audible and/or visual signal approved by the Administrator alerts the vehicle operator to the need for EGR system maintenance. The signal may be activated either by EGR system failure (unscheduled maintenance) or need for scheduled periodic maintenance. If maintenance is performed, the signal for scheduled periodic maintenance shall be reset. One additional servicing may also be performed as unscheduled maintenance if there is an overt indication of malfunction and if the malfunction or repair of the malfunction does not render the test vehicle unrepresentative of vehicles in use.

(iv) Manufacturers may schedule service to the EGR system at the scheduled major engine tuneup(s) if failure to perform EGR system maintenance is not likely, as determined by the Administrator, to result in an improvement in vehicle performance. One additional servicing may also be performed as unscheduled maintenance if there is an overt indication of malfunction and if the malfunction or repair of the malfunction does not render the test vehicle unrepresentative of vehicles in use.

(4) The catalytic converter may be serviced once during 50,000 miles if an audible and/or visual signal approved by the Administrator alerts the vehicle operator to the need for maintenance. The signal may be activated either by component failure or need for maintenance at a scheduled point.

(5) Any other engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on durability-data vehicles shall be performed only with the advance approval of the Administrator.

(i) In the case of unscheduled maintenance, such approval will be given if the Administrator:

(A) Has made a preliminary determination that part failure or system malfunction, or the repair of such failure or malfunction, does not render the vehicle unrepresentative of vehicles in use, and does not require direct access to the combustion chamber, except for spark plug, fuel injection component, or removable prechamber removal or replacement; and

(B) Has made a determination that the need for maintenance or repairs is indicated by an overt indication of malfunction such as persistent misfiring, vehicle stalling, overheating, fluid leakage, loss of oil pressure, or charge indicator warning. For the evaporative emission control system this overt indication may be indicated by such items as fuel odor or fluid leakage.

(ii) Emission measurements may not be used as a means of determining the need for unscheduled maintenance under paragraph (a)(5)(i)(A) of this section.

(iii) Requests for authorization of scheduled maintenance of emission control-related components not specifically authorized to be maintained by these regulations must be made prior to the beginning of durability testing. The Administrator will approve the performance of such maintenance if the manufacturers makes a satisfactory showing that the maintenance will be performed on vehicles in use.

(6) If the Administrator determines that part failure or system malfunction occurrence and/or repair rendered the vehicle unrepresentative of vehicles in use, the vehicle shall not be used as a durability-data vehicle.

(7) Where the Administrator agrees under § 86.079–26 to a mileage accumulation of less than 50,000 miles for durability testing, he may modify the requirements of this paragraph.

(8)(i) Adjustment of engine idle speed on emission-data vehicles may be performed once before the 6,436-kilometer (4,000-mile) test point. Any other engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on emission-data vehicles shall be performed only with the advance approval of the Administrator.

(ii) Maintenance on emission-data vehicles selected under § 86.079–24 (b)(1)(v) or (b)(1)(vii)(D) and permitted to be tested for purposes of § 86.079–23 (b)(1)(ii) under the provisions of § 86.079–24 (b)(1)(vi) may be performed in conjunction with emission control system modifications at the 6,436-kilometer (4,000-mile) test point, and shall be performed in accordance with the maintenance instructions to be provided to the ultimate purchaser required under § 86.079–38.

(iii) Maintenance on those emission-data vehicles selected under § 86.079–24 (b)(1)(v) which are not capable of being modified in the field for the purpose of complying with emission standards at an altitude other than intended by the original design may be performed in conjunction with the emission control system modifications at the 6,436-kilometer (4,000-mile) test point, and shall be approved in advance by the Administrator.

(9) Repairs to vehicle components of the durability-data or emission-data vehicle, other than the engine, emission control system, or fuel system, shall be performed only as a result of part failure, vehicle system malfunction, or with the advance approval of the Administrator.

(10) Complete emission tests (see §§ 86.106 through 86.145) are required, unless waived by the Administrator, before and after any vehicle maintenance which may reasonably be expected to affect emissions. These test data shall be air posted to the Administrator within 24 hours (or delivered within 3 working days), after the tests, along with a complete record of all pertinent maintenance, including a preliminary engineering report of any malfunction diagnosis and the corrective action taken. A complete engineering report shall be delivered or air posted to the Administrator within 10 working days after the tests. In addition, all test data and maintenance reports shall be compiled and provided to the Administrator in accordance with § 86.079–23.

(11) The Administrator shall be given the opportunity to verify the existence of an overt indication of part failure and/or vehicle malfunction (e.g., misfiring, stalling, black smoke), or an activation of an audible and/or visual signal, prior to the performance of any maintenance to which such overt indication or signal is relevant under the provisions of this section.

(12) Equipment, instruments, or tools may not be used to identify malfunctioning, maladjusted, or defective engine components unless the same or equivalent equipment, instruments, or tools will be available to dealerships and other service outlets and

(i) Are used in conjunction with scheduled maintenance on such components,

(ii) Are used subsequent to the identification of a vehicle or engine malfunction, as provided in paragraph (a)(5)(i) of this section for durability-data vehicles or paragraph (a)(8)(i) of this section for emission-data vehicles, or

(iii) Unless specifically authorized by the Administrator.

(b) [Reserved]

(c) *Heavy-duty engines.* Paragraph (c) of this section applies to heavy-duty engines.

(1) All emission-related scheduled maintenance which is necessary for compliance with the standards in actual use must be technologically necessary. The emission-related maintenance which is performed on engines, subsystems, or components used to determine exhaust emission deterioration factors must be compatible with the requirements of the previous sentence.

(i) The manufacturer must submit data to the Administrator which demonstrates that all of the emission-related maintenance which is to be performed on the engines is technologically necessary. EPA has determined that emissions-related maintenance at shorter intervals than that outlined in paragraphs (c)(1)(ii) and (c)(1)(iii) is not technologically necessary. The Administrator may determine that even maintenance more restrictive (e.g., longer intervals) than that listed in paragraphs (c)(1)(ii) and (c)(1)(iii) is not technologically necessary.

(ii) For gasoline-fueled engines, emission-related maintenance in addition to, or at shorter intervals, than that listed below will not be accepted as technologically necessary, except as provided in paragraph (c)(1)(iv).

(A) The cleaning or replacement of spark plugs at 25,000 miles and at 25,000-mile intervals thereafter.

(B) The inspecting, cleaning, adjustment, or replacement of the following at 50,000 miles of use and at 50,000-mile intervals thereafter:

(*1*) Postive crankcase ventilation and exhaust gas recirculation valves;

(*2*) Emission-related hose and tubes;

(3) Ignition wires;
(4) Oxygen sensor;
(5) Injector tips (inspecting and cleaning only);
(6) Idle mixture.
(C) The replacement of the catalytic converter at 100,000 miles of use and at 100,000-mile (or longer) intervals thereafter.
(iii) For diesel engines, emission-related maintenance in addition to or at shorter intervals than that listed below will not be accepted as technologically necessary, except as provided in paragraph (c)(1)(iv).
(A) The following maintenance at 50,000 miles of use and at 50,000-mile intervals thereafter.
(1) Cleaning or replacement of the exhaust gas recirculation and positive crankcase ventilation valves;
(2) Cleaning of injector tips.
(B) The cleaning, rebuilding, or replacement of the following at 200,000 miles of use and at 200,000 mile intervals thereafter:
(1) Turbocharger;
(2) Injectors.
(iv) Requests for authorization of scheduled maintenance of emission control related components in addition to those items of maintenance covered under paragraphs (c)(1)(ii) and (c)(1)(iii) will be considered if the maintenance is a direct result of the implementation of new technology. New technology means any technology not found in production on any motor vehicle prior to the 1980 model year.
(v) [Reserved]
(vi) Non-emission related engine maintenance which is reasonable and necessary (e.g., oil change, oil filter change, fuel filter change, air filter change, cooling system maintenance, accessory belt inspection, adjustment of idle speed, governor, engine bolt torque, valve lash, injector lash, timing, etc.) may be performed on durability-data engines at the intervals recommended by the manufacturer to the utlitmate purchaser.
(vii) Unscheduled maintenance may be performed on durability-data engines, except as provided in paragraph (c)(1)(viii)(A) of this section, only under the following provisions:
(A) An injector or spark plug may be changed if a persistent misfire is detected.
(B) Readjustment of a gasoline-fueled engine cold-start enrichment system may be performed if there is a problem of stalling.
(C) Readjustment of the engine idle speed (curb idle and fast idle) may be performed, if the idle speed exceeds the manufacturer's recommended idle speed by 300 rpm or more, if there is a problem of stalling.
(viii) Any other unscheduled engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on durability-data engines shall be performed only with the advance approval of the Administrator.
(A) Such approval will be given if the Administrator:
(1) Has made a preliminary determination that the part failure or system malfunction, or the repair of such failure or malfunction, does not render the engine unrepresentative of engines in use, and does not require direct access to the combustion chamber, except for spark plug, fuel injection component, or removable prechamber removal or replacement; and,
(2) Has made a determination that the need for maintenance or repairs is indicated by an overt indication of malfunction such as persistent misfiring, engine stalling, overheating, fluid leakage, loss of oil pressure, excessive fuel consumption or excessive power loss.
(B) Emission measurements may not be used as a means of determining the need for unscheduled maintenance under paragraph (c)(1)(vii) of this section.
(ix) If the Administrator determines the part failure or system malfunction occurrence and/or repair rendered the engine unrepresentative of engines in use, the engine shall not continue to be used as a durability-data engine. The emission data from an engine that is discontinued as a durability-data engine shall not be included in the evaluation of the deterioration factor for the family-system combination if its calculated deterioration factor is less than the average deterioration factor for the remaining durability-data engines in the combination, unless the manufacturer's engineering analysis demonstrates, to the satisfaction of the Administrator, that the data is representative.
(2) [Reserved]
(3)(i) Scheduled maintenance on emission-data engines is limited to the adjustment of idle speed once before the 125-hour test point, provided the idle speed is outside the manufacturer's specifications.
(ii) Any other engine, emission control system, or fuel system, adjustment, repair, removal, disassembly, cleaning, servicing, or replacement shall be performed only with the advance approval of the Administrator.
(4) [Reserved]
(5)(i) [Reserved]
(ii) [Reserved]
(iii) [Reserved]
(iv) Test data required by this paragraph shall be air posted to the Administrator within 72 hours of test completion (or delivered within 5 working days), along with a complete record of all pertinent maintenance.
(v) When unscheduled maintenance is approved, a preliminary engineering report, unless waived by the Administrator, shall be air posted within 72 hours (or delivered within 5 working days). A final engineering report shall be delivered or air posted within 10 working days after the completion of the emissions tests. The Administrator may approve an extension of the time requirements for the final engineering report.
(vi) All test data, maintenance reports, and required engineering reports shall be compiled and provided to the Administrator in accordance with § 86.079–23.
(6) The Administrator shall be given the opportunity to verify the existence of an overt indication of part failure and/or engine malfunction (e.g., misfiring, stalling.)
(7) Equipment, instruments, or tools may not be used to identify malfunctioning, maladjusted, or defective engine components unless the same or equivalent equipment, instruments, or tools will be available to dealerships and other service outlets, and:
(i) Are used in conjunction with scheduled maintenance on such components;
(ii) Are used subsequent to the identification of an engine failure or malfunction, as provided in paragraph (c)(2)(v)(A) of this section for durability-data engines or paragraph (c)(3) of this section for emission-data engines; or
(iii) Unless specifically authorized by the Administrator.

13. A new § 86.084–26 is added and reads as follows:

**§ 86.084–26 Mileage and service accumulation; emission measurements.**

(a)(1) Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.
(2) The procedure for mileage accumulation will be the Durability Driving Schedule as specified in Appendix IV to this part. A modified procedure may also be used if approved in advance by the Administrator. Except with the advance approval of the Administrator, all vehicles will accumulate mileage at a measured curb weight which is within 100 pounds of the estimated curb weight. If the loaded vehicle weight is within 100 pounds of being included in the next higher inertia weight class as specified in § 86.125, the

manufacturer may elect to conduct the respective emission tests at higher loaded vehicle weight. Mileage will be accumulated on four wheel drive vehicles in their normal on-highway mode of operation.

(3) *Emission-data vehicles.*—(i) *Gasoline-fueled.* (A) Each gasoline-fueled emission-data vehicle shall be driven 4000 miles with all emission control systems installed and operating. Complete exhaust emission tests shall be conducted at zero miles and 4000 miles on those vehicles selected under § 86.079–24 (b)(1)(ii) through (b)(1)(v). Complete exhaust and evaporative emission tests shall be conducted at zero miles and 4000 miles on those vehicles selected under § 86.079–24(b)(1)(vii). The manufacturer may at his option test the vehicles selected under § 86.079–29(b)(1)(vii) up to three times at the 4000-mile test point as long as the ±250 mile test tolerance is adhered to. The Administrator may determine under § 86.079–24(f) that no testing is required.

(B) The emission-data vehicle(s) selected for testing under § 86.079–24 (b)(1)(v) or (b)(1)(vii)(D) shall be driven 6,436 kilometers (4,000 miles) at any altitude. Emission tests shall be conducted at zero kilometers (zero miles) at any altitude and 6,436 kilometers (4,000 miles) under high-altitude conditions.

(C) The emission-data vehicle(s) selected for testing under § 86.079–24 (b)(1)(v) or (b)(1)(vii)(D) and permitted to be tested for purposes of § 86.079–23(b)(1)(ii) under the provisions of § 86.079–24(b)(1)(vi) shall be driven 6,436 kilometers (4,000 miles) at low altitude. Emission tests shall be conducted at zero kilometers (zero miles) at low altitude and 6,436 kilometers (4,000 miles) under both low- and high-altitude conditions. For the purposes of this subparagraph, "low altitude" means any elevation less than 549 meters (1,800 feet).

(ii) *Diesel.* (A) Each Diesel emission-data vehicle shall be driven 6,436 kilometers (4,000 miles) with all emission control systems installed and operating. Emission tests shall be conducted at zero kilometers (zero miles) and 6,436 kilometers (4,000 miles).

(B) The emission-data vehicle(s) selected for testing under § 86.079–24(b)(1)(v) shall be driven 6,436 kilometers (4,000 miles) at any altitude. Emission tests shall be conducted at zero kilometers (zero miles) at any altitude and 6,436 kilometers (4,000 miles) under high-altitude conditions.

(C) The emission-data vehicle(s) selected for testing under § 86.079–24(b)(1)(v) and permitted to be tested for purposes of § 86.079–23(b)(1)(ii) under the provisions of § 86.079–24(b)(1)(vi) shall be driven 6,436 kilometers (4,000 miles) at low altitude. Emission tests shall be conducted at zero kilometers (zero miles) at low altitude and 6,436 kilometers (4,000 miles) under both low- and high-altitude conditions. For the purpose of this subparagraph "low altitude" means any elevation less than 549 meters (1,800 feet).

(4) *Durability-data vehicles.*—(i) *Gasoline-fueled.* Each gasoline-fueled durability-data vehicle selected by the Administrator or elected by the manufacturer under § 86.079–24(c)(1) shall be driven, with all emission control systems installed and operating, for 50,000 miles or such lesser distance as the Administrator may agree to as meeting the objective of this procedure. Complete exhaust emission tests shall be made on all durability-data vehicles selected by the Administrator or elected by the manufacturer under § 86.079–24(c) at the following mileage points: 0; 5,000; 10,000; 15,000; 20,000; 25,000; 30,000; 35,000; 40,000; 45,000; 50,000. The Administrator may determine under § 86.079–24(f) that no testing is required.

(ii) *Diesel.* Each Diesel durability-data vehicle shall be driven, with all emission control systems installed and operating, for 50,000 miles or such lesser distance as the Administrator may agree to as meeting the objectives of the procedure. Complete emission tests (see §§ 86.106 through 86.145) shall be made at the following mileage points: 0; 5,000; 10,000; 15,000; 20,000; 25,000; 30,000; 35,000; 40,000; 45,000; and 50,000.

(5) All tests required by this subpart to be conducted after every 5,000 miles of driving for durability-data vehicles and 4,000 miles for emission-data vehicles must be conducted at any accumulated mileage within 250 miles of each of those test points.

(6)(i) The results of each emission test shall be supplied to the Administrator immediately after the test. The manufacturer shall furnish to the Administrator explanation for voiding any test. The Administrator will determine if voiding the test was appropriate based upon the explanation given by the manufacturer for the voided test. If a manufacturer conducts multiple tests at any test point at which the data are intended to be used in the calculation of the deterioration factor, the number of tests must be the same at each point and may not exceed three valid tests. Tests between test points may be conducted as required by the Administrator. Data from all tests (including voided tests) shall be air posted to the Administrator within 24 hours (or delivered within 3 working days). In addition, all test data shall be compiled and provided to the Administrator in accordance with § 86.070–23. Where the Administrator conducts a test on a durability-data vehicle at a prescribed test point, the results of that test will be used on the calculation of the deterioration factor.

(ii) The results of all emission tests shall be rounded, using the "Rounding Off Method" specified in ASTM E29–67, to the number of places to the right of the decimal point indicated by expressing the applicable emission standards of this subpart to three significant figures.

(7) Whenever the manufacturer proposes to operate and test a vehicle which may be used for emission or durability data, he shall provide the zero-mile test data to the Administrator and make the vehicle available for such testing under § 86.079–29 as the Administrator may require before beginning to accumulate mileage on the vehicle. Failure to comply with this requirement will invalidate all test data submitted for this vehicle.

(8) Once a manufacturer begins to operate an emission-data or durability-data vehicle, as indicated by compliance with paragraph (a)(7) of this section, he shall continue to run the vehicle to 4,000 miles or 50,000 miles, respectively, and the data from the vehicle will be used in the calculations under § 86.079–28. Discontinuation of a vehicle shall be allowed only with the written consent of the Administrator.

(9)(i) The Administrator may elect to operate and test any test vehicle during all or any part of the mileage accumulation and testing procedure. In such cases, the manufacturer shall provide the vehicle(s) to the Administrator with all information necessary to conduct this testing.

(ii) The test procedures in §§ 86.106 through 86.145 will be followed by the Administrator. The Administrator will test the vehicles at each test point. Maintenance may be performed by the manufacturer under such conditions as the Administrator may prescribe.

(iii) The data developed by the Administrator for the engine-system combination shall be combined with any applicable data supplied by the manufacturer on other vehicles of that combination to determine the applicable deterioration factors for the combination. In the case of a significant discrepancy between data developed by the Administrator and that submitted by the manufacturer, the Administrator's data shall be used in the determination of deterioration factors.

(10) Emission testing of any type with respect to any certification vehicle other

than that specified in this part is not allowed except as such testing may be specifically authorized by the Administrator.

(11) This section does not apply to testing conducted to meet the requirements of § 86.079–23(b)(2).

(b)(1) Paragraph (b) of this section applies to heavy-duty engines.

(2) There are two types of service accumulation applicable to heavy-duty engines:

(i) Service accumulation on engines, subsystems, or components selected by the manufacturer under § 86.084–24(c)(2)(i). The manufacturer determines the form and extent of this service accumulation, consistent with good engineering practice, and describes it in the application for certification.

(ii) Dynamometer service accumulation on emission-data engines selected under § 86.084–24(b)(2) or § 86.084–24(b)(3). The manufacturer determines the engine operating schedule to be used for dynamometer service accumulation, consistent with good engineering practice. A single engine operating schedule shall be used for all engines in an engine family-control system combination. Operating schedules may be different for different combinations.

(3) Exhaust emission deterioration factors will be determined on the basis of the service accumulation described in paragraph (b)(2)(i) of this section and related testing, according to the manufacturer's procedures.

(4) Each emission-data engine shall be operated on a dynamometer for 125 hours plus or minus eight hours with all emission control systems installed and operating. An emission test shall be conducted at the end of this dynamometer service accumulation. A zero-hour emission test may be performed after the engine has been approved by the Administrator to begin service accumulation. Evaporative emission controls need not be connected provided normal operating conditions are maintained in the engine induction system. If a break-in procedure is used the procedure must be the same as recommended to the ultimate purchaser. The hours accumulated during the break-in procedure will not be counted as part of the service accumulation.

(5) [Reserved]

(6) [Reserved]

(7) [Reserved]

(8) [Reserved]

(9)(i) Data from all emission tests (including voided tests) shall be air posted to the Administrator within 72 hours (or delivered within 5 working days). The manufacturer shall furnish to the Administrator an explanation for voiding any test. The Administrator will determine if voiding the test was appropriate based upon the explanation given by the manufacturer for the voided test. The Administrator may require emission tests at points in addition to those specified in this subpart. In addition, all test data shall be compiled and provided to the Administrator in accordance with § 86.084–23.

(ii) The results of all emission tests shall be recorded and reported to the Administrator using two places to the right of the decimal point. These numbers shall be rounded in accordance with the "Rounding Off Method" specified in ASTM E29–67.

(10) Whenever the manufacturer proposes to operate and test an engine which may be used for emission data, it shall provide such information concerning components used on the engine as the Administrator may require and make the engine available for such testing under § 86.084–29 as the Administrator may require, before beginning to accumulate hours on the engine. Failure to comply with this requirement will invalidate all test data submitted for this engine.

(11) Once the manufacturer begins to operate an emission-data engine, as indicated by compliance with paragraph (b)(10) of this section, it shall continue to run that engine to 125 hours plus or minus eight hours.

(12) [Reserved]

(13) Emission testing of any type with respect to any certification engine other than that specified in this subpart is not allowed except as such testing may be specifically authorized by the Administrator.

(14) A new § 86.084–27 is added and reads as follows:

**§ 86.084–27 Special test procedures.**

(a) For light-duty vehicles and light-duty trucks the Administrator may, on the basis of a written application therefore by a manufacturer, prescribe test procedures, other than those set forth in this part, for any motor vehicle which he determines is not susceptible to satisfactory testing by the procedures set forth herein or in Subpart B of this part.

(b) For heavy-duty engines:

(1) The Administrator may, on the basis of a written application by a manufacturer, prescribe test procedures, other than those set forth in this subpart, for any motor-vehicle engine, which he determines is not susceptible to satisfactory testing by the procedures set forth herein or in Subparts N, I, and P of this part.

(2) If the manufacturer does not submit a written application for use of special test procedures but the Administrator determines that a motor-vehicle engine is not susceptible to satisfactory testing by the procedures set forth herein, the Administrator will reject the applicable portions of the application. The Administrator shall notify the manufacturer in writing and set forth the reasons for such rejection in accordance with the provisions of § 86.084–22(c).

15. A new § 86.084–28 is added and reads as follows:

**§ 86.084–28 Compliance with emission standards.**

(a)(1) Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.

(2) The applicable exhaust and fuel evaporative emission standards of this subpart apply to the emissions of vehicles for their useful life.

(3) Since it is expected that emission control efficiency will change with mileage accumulation on the vehicle, the emission level of a vehicle which has accumulated 50,000 miles will be used as the basis for determining compliance with the standards.

(4) The procedure for determining compliance of a new motor vehicle with exhaust emission standards is as follows:

(i) Separate emission deterioration factors shall be determined from the exhaust emission results of the durability-data vehicle(s) for each engine-system combination. A separate factor shall be established for exhaust HC, exhaust CO, and exhaust $NO_x$ for each engine-system combination. A separate evaporative emission deterioration factor shall be determined for each evaporative emission family-evaporative emission control system combination from the testing conducted by the manufacturer.

(A) The applicable results to be used in determining the exhaust emission deterioration factors for each engine-system combination shall be:

(*1*) All valid exhaust emission data from the tests required under § 86.079–26(a)(4) except the zero-mile tests. These shall include the official test results, as determined in § 86.079–29 for all tests conducted on all durability-data vehicles of the combination selected under § 86.079–24(c) (including all vehicles elected to be operated by the manufacturer under § 86.079–24(c)(1)(ii)).

(*2*) All exhaust emission data from the tests conducted before and after the scheduled maintenance provided in § 86.079–25.

(*3*) All exhaust emission data from tests required by maintenance approved under § 86.079–25, in those cases where

the Administrator conditioned his approval for the performance of such maintenance on the inclusion of such data in the deterioration factor calculation.

(B) All applicable exhaust emission results shall be plotted as a function of the mileage on the system, rounded to the nearest mile, and the best fit straight lines, fitted by the method of least squares, shall be drawn through all these data points. The interpolated 4,000- and 50,000-mile points on this line must be within the standards provided in § 86.078–8 or § 86.079–9, as applicable, or the data will not be acceptable for use in calculation of a deterioration factor, unless no applicable data point exceeded the standard. An exhaust emission deterioration factor shall be calculated for each engine-system combination as follows:

Factor-Exhaust emissions interpolated to 50,000 miles÷exhaust emissions interpolated to 4,000 miles.

These interpolated values shall be carried out to a minimum of four places to the right of the decimal point before dividing one by the other to determine the deterioration factor. The results shall be rounded to three places to the right of the decimal point in accordance with ASTM E 29–67.

(C) An evaporative emissions deterioration factor shall be determined from the testing conducted as described in § 86.079–21(b)(4)(ii), for each evaporative emission family-evaporative emission control system combination to indicate the evaporative emission level at 50,000 miles relative to the evaporative emission level at 4,000 miles as follows:

Factor-Evaporative emission level at 50,000 miles minus the evaporative emission level at 4,000 miles.

The factor shall be established to a minimum of two places to the right of the decimal.

(ii)(A) The official exhaust emission test results for each emission-data vehicle at the 4,000-mile test point shall be multiplied by the appropriate deterioration factor: *Provided,* That if a deterioration factor as computed in paragraph (a)(4)(i)(B) of this section is less than one, that deterioration factor shall be one for the purposes of this paragraph.

(B) The official evaporative emission test results for each evaporative emission-data vehicle at the 4,000-mile test point shall be adjusted by addition of the appropriate deterioration factor: *Provided,* That if a deterioration factor as computed in paragraph (a)(4)(i)(C) of this section is less than zero, that deterioration factor shall be zero for the purposes of this paragraph.

(iii) The emissions to compare with the standard shall be the adjusted emissions of paragraph (a)(4)(ii) (A) and (B) of this section for each emission-data vehicle. Before any emission value is compared with the standard, it shall be rounded, in accordance with ASTM E 29–67, to two significant figures. The rounded emission values may not exceed the standard.

(iv) Every test vehicle of an engine family must comply with the exhaust emission standards, as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

(v) Every test vehicle of an evaporative emission family must comply with the evaporative emission standards, as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

(b)(1) Paragraph (b) of this section applies to heavy-duty engines.

(2) The exhaust emission standards for gasoline-fueled engines in § 86.084–10 or for diesel engines in § 86.084–11 apply to the emissions of engines for their useful life.

(3) Since emission control efficiency generally decreases with the accumulation of service on the engine, deterioration factors will be used in combination with emission-data engine test results as the basis for determining compliance with the standards.

(4)(i) Paragraph (b)(4) of this section describes the procedure for determining compliance of an engine with emission standards, based on deterioration factors supplied by the manufacturer.

(ii) Separate exhaust emission deterioration factors, determined from tests of engines, subsystems, or components conducted by the manufacturer, shall be supplied for each engine-system combination. For gasoline and diesel engines, separate factors shall be established for transient HC, CO, and $NO_x$. For gasoline-fueled engines, a separate factor shall be established for idle CO. For diesel smoke testing, separate factors shall also be established for the acceleration mode (designated as "A"), the lugging mode (designated as "B"), and the peak opacity (designated as "C").

(iii)(A) For transient HC, CO, and $NO_x$ (and, in the case of gasoline-fueled engines, for idle CO), the official exhaust emission results for each emission-data engine at the 125-hour test point shall be adjusted by multiplication by the appropriate deterioration factor. However, if the deterioration factor supplied by the manufacturer is less than one, it shall be one for the purposes of this paragraph.

(B) For acceleration smoke ("A"), lugging smoke ("B"), and peak smoke ("C"), the official exhaust emission results for each emission-data engine at the 125-hour test point shall be adjusted by the addition of the appropriate deterioration factor. However, if the deterioration factor supplied by the manufacturer is less than zero, it shall be zero for the purposes of this paragraph.

(iv) The emission values to compare with the standards shall be the adjusted emission values of paragraph (b)(4)(iii) of this section rounded to two significant figures in accordance with ASTM E 29–67 for each emission-data engine.

(5) [Reserved]

(6) [Reserved]

(7) Every test engine of an engine family must comply with all applicable standards, as determined in paragraph (b)(4)(iv) of this section, before any engine in that family will be certified.

16. A new § 86.084–29 is added and reads as follows:

**§ 86.084–29 Testing by the Administrator.**

(a)(1) Paragraph (a) of this section applies to light-duty vehicles and light-duty trucks.

(2) The Administrator may require that any one or more of the test vehicles be submitted to him, at such place or places as he may designate, for the purposes of conducting emissions tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on a test vehicle, the results of that test shall, unless subsequently invalidated by the Administrator, comprise the official data for the vehicle at the prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

(ii) Whenever the Administrator does not conduct a test on a test vehicle at a test point, the manufacturer's test data will be accepted as the official data for that test point: *Provided,* That if the Administrator makes a determination based on testing under paragraph (a)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment

used by the Administrator, no manufacturer's test data will be accepted for purposes of certification until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer, *And further provided,* That if the Administrator has reasonable basis to believe that any test data submitted by the manufacturer is not accurate or has been obtained in violation of any provisions of this part, the Administrator may refuse to accept that data as the official data pending retesting or submission or further information. If the manufacturer conducts more than one test on a vehicle, as authorized under § 86.079–26(a)(3)(i)(A), the data from the last test in that series of tests on that vehicle, will constitute the official data:

*(iii)(A)(1)* The Administrator may adjust or cause to be adjusted any adjustable parameter of an emission data vehicle or engine which the Administrator has determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.081–22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.081–22(e)(3)(i), prior to the performance of any tests to determine whether such vehicle or engine conforms to applicable emission standards, including tests performed by the manufacturer under § 86.079–23(c)(1). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the vehicle before it accumulated any mileage, all other parameters being adjusted identically for the purpose of comparison. The Administrator, in making or specifying such adjustments, will consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occur on in-use light-duty vehicles or light-duty trucks. In determining likelihood, the Administrator will consider factors such as, but not limited to, the effect of the adjustment on vehicle performance characteristics and surveillance information from similar in-use vehicles.

*(2)* For those vehicles or engine parameters which the Administrator has not determined to be subject to adjustment during certification and Selective Enforcement Audit testing in accordance with § 86.081–22(e)(1), the emission-data vehicle presented to the Administrator for testing shall be calibrated within the production tolerances applicable to the manufacturer's specifications to be shown on the vehicle label (see § 86.079–35 (a)(1)(iii)(D)) as specified in the application for certification. If the Administrator determines that a vehicle is not within such tolerances, the vehicle will be adjusted, at the facility designated by the Administrator, prior to the test and an engineering report shall be submitted to the Administrator describing the corrective action taken. Based on the engineering report, the Administrator will determine if the vehicle will be used as an emission-data vehicle.

(B) If the Administrator determines that the test data developed on an emission-data vehicle under paragraph (a)(3)(i) of this section would cause that vehicle to fail due to excessive 4,000 mile emissions or by application of the appropriate deterioration factor, then the following procedure shall be observed:

*(1)* The manufacturer may request a retest. Before the retest, those vehicle or engine parameters which the Administrator has not determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.081–22(e)(1) may be readjusted to manufacturer's specifications, if these adjustments were made incorrectly prior to the first test. The Administrator may adjust or cause to be adjusted any parameter which the Administrator has determined to be subject to adjustment to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.081–22(e)(3)(i). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the vehicle before it accumulated any mileage, all other parameters being adjusted identically for the purpose of comparison. Other maintenance or repairs may be performed in accordance with § 86.079–25. All work on the vehicle shall be done at such location and under such conditions as the Administrator may prescribe.

*(2)* The vehicle will be retested by the Administrator and the results of this test shall comprise the official data for the emission-data vehicle.

(iv) If sufficient durability data are not available at the time of any emission test conducted under paragraph (a)(2) of this section to enable the Administrator to determine whether an emission-data vehicle would fail, the manufacturer may request a retest in accordance with the provisions of paragraphs (a)(3)(iii) (A) and (B) of this section. If the manufacturer does not promptly make such request, he shall be deemed to have waived the right to a retest. A request for retest must be made before the manufacturer removes the vehicle from the test premises.

(b)(1) Paragraph (b) of this section applies to heavy-duty engines.

(2) The Administrator may require that any one or more of the test engines be submitted to him, at such place or places as he may designate, for the purpose of conducting emissions tests. The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator shall be made available by the manufacturer for test operations. Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be scheduled by the manufacturer as promptly as possible.

(3)(i) Whenever the Administrator conducts a test on a test engine the results of that test, unless subsequently invalidated by the Administrator, shall comprise the official data for the engine at that prescribed test point and the manufacturer's data for that prescribed test point shall not be used in determining compliance with emission standards.

(ii) Whenever the Administrator does not conduct a test on a test engine at a test point, the manufacturer's test data will be accepted as the official data for that test point: *Provided,* That if the Administrator makes a determination based on testing under paragraph (b)(2) of this section, that there is a lack of correlation between the manufacturer's test equipment and the test equipment used by the Administrator, no manufacturer's test data will be accepted for purposes of certification until the reasons for the lack of correlation are determined and the validity of the data is established by the manufacturer: *And further provided,* That if the Administrator has reasonable basis to believe that any test data submitted by the manufacturer is not accurate or has been obtained in violation of any provision of this part, the Administrator may refuse to accept that data as the official data pending

retesting or submission of further information.

(iii)(A)(*1*) The Administrator may adjust or cause to be adjusted any adjustable parameter of an emission-data engine which the Administrator has determined to be subject to adjustment for certification testing in accordance with § 86.084–22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.084–22(e)(3)(i), prior to the performance of any tests to determine whether such engine conforms to applicable emission standards, including tests performed by the manufacturer under § 86.084–23(c)(1). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the engine before it accumulated any dynamometer service, all other parameters being identically adjusted for the purpose of the comparison. The Administrator, in making or specifying such adjustments, may consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occur on in-use heavy-duty engines. In determining likelihood, the Administrator may consider factors such as, but not limited to, the effect of the adjustment on engine performance characteristics and surveillance information from similar in-use engines.

(*2*) For those engine parameters which the Administrator has not determined to be subject to adjustment for certification testing in accordance with § 86.084–22(e)(1), the emission-data engine presented to the Administrator for testing shall be calibrated within the production tolerances applicable to the manufacturer's specifications to be shown on the engine label (see § 86.084–35(a)(2)(iii)) as specified in the application for certification. If the Administrator determines that an engine is not within such tolerances, the engine shall be adjusted at the facility designated by the Administrator prior to the test and an engineering report shall be submitted to the Administrator describing the corrective action taken. Based on the engineering report, the Administrator will determine if the engine shall be used as an emission-data engine.

(B) If the Administrator determines that the test data developed under paragraph (b)(3)(iii)(A) of this section would cause the emission-data engine to fail due to excessive 125-hour emission values or by the application of the appropriate deterioration factor, then the following procedure shall be observed.

(*1*) The manufacturer may request a retest. Before the retest, those engine parameters which the Administrator has not determined to be subject to adjustment for certification testing in accordance with § 86.084–22(e)(1) may be readjusted to the manufacturer's specifications, if these adjustments were made incorrectly prior to the first test. The Administrator may adjust or cause to be adjusted any parameter which the Administrator has determined to be subject to adjustment in accordance with § 86.084–22(e)(3)(i). However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to a setting which causes a higher engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter on the engine before it accumulated any dynamometer service, all other parameters being identically adjusted for the purpose of the comparison. Other maintenance or repairs may be performed in accordance with § 86.084–25. All work on the vehicle shall be done at such location and under such conditions as the Administrator may prescribe.

(*2*) The engine will be retested by the Administrator and the results of this test shall comprise the official data for the emission-data engine.

(iv) If sufficient durability data are not available at the time of any emission test conducted under paragraph (b)(2) of this section to enable the Administrator to determine whether an emission-data engine would fail, the manufacturer may request a retest in accordance with the provisions of paragraph (b)(3)(iii)(B) (*1*) and (*2*) of this section. If the manufacturer does not promptly make such request, he shall be deemed to have waived the right to a retest. A request for retest must be made before the manufacturer removes the engine from the test premises.

17. A new § 86.084–30 is added and reads as follows:

**§ 86.084–30 Certification.**

(a)(1) If, after a review of the test reports and data submitted by the manufacturer, data derived from any inspection carried out under § 86.078–7(c) and any other pertinent data or information, the Administrator determines that a test vehicle(s) (or test engine(s)) meets the requirements of the Act and of this subpart, he will issue a certificate of conformity with respect to such vehicle(s) (or engine(s)) except in cases covered by paragraph (c) of this section.

(i) Each certificate of conformity shall state the altitude(s) at which the vehicle(s) covered by the certificate has demonstrated compliance with the applicable emission standards.

(2) Such certificate will be issued for such period not to exceed one model year as the Administrator may determine and upon such terms as he may deem necessary or appropriate to assure that any new motor vehicle (or new motor vehicle engine) covered by the certificate will meet the requirements of the Act and of this part. Each such certificate shall contain the following language:

This certificate covers only those new motor vehicles (or new motor vehicle engines) which conform, in all material respects, to design specifications that applied to those vehicles (or engines) described in the application for certification and which are produced during the model year production period of the said manufacturer, as defined in 40 CFR § 86.079–2.

It is a term of this certificate that the manufacturer shall consent to all inspections described by 40 CFR §§ 86.078–7(c), 86.606, and 86.1006 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate as specified in 40 CFR § 86.084–30 (c), (d), or (e). It is also a term of this certificate that this certificate may be revoked or suspended for the other reasons stated in § 86.079–30 (c), (d), or (e).

(3) One such certificate will be issued for each engine family and will certify compliance with no more than one set of applicable standards except that for gasoline-fueled light-duty vehicles and light-duty trucks, one such certificate will be issued for each engine family-evaporative emission family combination and will certify compliance with no more than one set of applicable standards.

(4) [Reserved]

(5) The counties identified below have substantially all of their area located above 1,219 meters (4,000 ft.):

**Counties Located Substantially Above 1,219 Meters (4,000 feet) in Elevation**

*State of Arizona*

Apache, Navajo.

*State of Colorado*

Adams, Alamosa, Arapahoe, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Crowley, Custer, Dolores, Delta, Denver, Douglas, Eagle, Elbert, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison,

Hinsdale, Huerfano, Jackson, Jefferson, Lake, La Plata, Larimer, Las Animas, Lincoln, Mesa, Mineral, Moffat, Montezuma, Montrose, Morgan, Ouray, Park, Pitkin, Pueblo, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Summit, Teller, Washington, Weld.

*State of Idaho*

Bannock, Bear Lake, Bingham, Blaine, Bonneville, Butte, Camas, Caribou, Cassia, Clark, Custer, Franklin, Fremont, Jefferson, Madison, Minidoka, Oneida, Power, Teton, Valley.

*State of Montana*

Beaverhead, Deer Lodge, Gallatin, Jefferson, Madison, Meagher, Park, Silver Bow.

*State of Nebraska*

Banner, Kimball, Sioux.

*State of Nevada*

Carson City, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lyon, Mineral, Storey, White Pine.

*State of New Mexico*

Bernalillo, Catron, Colfax, Curry, DeBaca, Grant, Guadalupe, Harding, Lincoln, Los Alamos, Luna, McKinley, Mora, Rio Arriba, Sandoval, San Juan, San Miguel, Santa Fe, Sierra, Socorro, Taos, Torrance, Union, Valencia.

*State of Oregon*

Lake.

*State of Utah*

Beaver, Box Elder, Cache, Carbon, Daggett, Davis, Duchesne, Emery, Grand, Iron, Juab, Kane, Millard, Morgan, Piute, Rich, Salt Lake, San Juan, Sanpete, Sevier, Summit, Tooele, Uintah, Utah, Wasatch, Wayne, Weber.

*State of Wyoming*

Albany, Carbon, Converse, Fremont, Goshen, Hot Springs, Johnson, Laramie, Lincoln, Natrona, Niobrara, Park, Platte, Sublette, Sweetwater, Teton, Uinta, Weston.

(6) [Reserved]

(7) Certificates issued for light-duty vehicles or light-duty trucks certified with catalytic converters shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "Catalyst-equipped vehicles, otherwise covered by this certificate, which are driven outside the United States, Canada, and Mexico will be presumed to have been operated on leaded gasoline resulting in deactivation of the catalysts. If these vehicles are imported or offered for importation without retrofit of the catalyst, they will be considered not to be within the coverage of this certificate unless included in a catalyst control program operated by a manufacturer or a United States Government Agency and approved by the Administrator."

(8) Certificates issued for incomplete light-duty trucks shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "For incomplete light-duty trucks, this certificate covers only those new motor vehicles which when completed by having the primary load-carrying device or container attached, conform to the maximum curb weight and frontal area limitations described in the application for certification as required in 40 CFR 86.079–21(d)."

(9) Certificates issued for heavy-duty engines shall be subject to the following term in addition to the term in paragraph (a)(2) of this section: "For heavy-duty engines, this certificate covers only those new motor vehicle engines installed in heavy-duty vehicles which conform to the minimum gross vehicle weight rating, curb weight, or frontal area limitations for heavy-duty vehicles described in 40 CFR 86.079–2."

(b)(1) The Administrator will determine whether a vehicle (or engine) covered by the application complies with applicable standards by observing the following relationships:

(i) *Light-duty vehicles and light-duty trucks.*

(A) The durability-data vehicle(s) selected under § 86.078–24(c)(1)(i) shall represent all vehicles of the same engine-system combination.

(B) The emission-data vehicle(s) selected under § 86.078–24(b)(1)(ii), (b)(1)(iii), and (b)(1)(iv) shall represent all vehicles of the same engine-system combination as applicable to be sold below 4,000 feet.

(C) The emission-data vehicle(s) selected under § 86.078–24(b)(1)(vii)(A) and (b)(1)(vii)(B) shall represent all vehicles of the same evaporative control system within the evaporative family, as applicable, to be sold below 4,000 feet.

(D) The emission-data vehicle(s) selected under § 86.078–24(b)(1)(v) shall represent all vehicles of the same engine-system combination to be sold at high altitude.

(E) The emission-data vehicle(s) selected under § 86.078–24(b)(1)(vii)(D) shall represent all vehicles of the same evaporative control system within the evaporative family, sold at high altitude.

(ii) *Heavy-Duty Engines.* (A) A gasoline-fueled emission-data test engine selected under § 86.080–24(b)(2)(ii) and (iv) shall represent all engines in the same engine family of the same engine displacement-exhaust emission control system combination.

(B) A gasoline-fueled emission-data test engine selected under § 86.080–24(b)(2)(iii) shall represent all engines in the same engine family of the same engine displacement-exhaust emission control system combination.

(C) A diesel emission-data test engine selected under § 86.084–24(b)(3)(ii) shall represent all engines in the same engine-system combination.

(D) A diesel emission-data test engine selected under § 86.084–24(b)(3)(iii) shall represent all engines of that emission control system at the rated fuel delivery of the test engine.

(E) [Reserved]

(2) The Administrator will proceed as in paragraph (a) of this section with respect to the vehicles (or engines) belonging to an engine family or engine family-evaporative emission family combination (as applicable), all of which comply with all applicable standards.

(3) If, after a review of the test reports and data submitted by the manufacturer, data derived from any additional testing conducted pursuant to § 86.078–29, data or information derived from any inspection carried out under § 86.078–7(c) or any other pertinent data or information, the Administrator determines that one or more test vehicles (or test engines) of the certification test fleet do not meet applicable standards, he will notify the manufacturer in writing, setting forth the basis for his determination. Within 30 days following receipt of the notification, the manufacturer may request a hearing on the Administrator's determination. The request shall be in writing, signed by an authorized representative of the manufacturer and shall include a statement specifying the manufacturer's objections to the Administrator's determination and data in support of such objections. If, after a review of the request and supporting data, the Administrator finds that the request raises a substantial factual issue, he shall provide the manufacturer a hearing in accordance with § 86.078–6 with respect to such issue.

(4) For light-duty vehicles and light-duty trucks the manufacturer may, at his option, proceed with any of the following alternatives with respect to an emission-data vehicle determined not in compliance with all applicable standards for which it was tested:

(i) Request a hearing under § 86.078–6; or

(ii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed, from his application;

(A) If the failed vehicle was tested for compliance with exhaust emission standards only: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle to be tested for exhaust emission compliance only.

(B) If the failed vehicle was tested for compliance with both exhaust and evaporative emission standards: The Administrator may select, in place of the failed vehicle, in accordance with the selection criteria employed in selecting the failed vehicle, a new emission-data vehicle which will be tested for compliance with both exhaust and evaporative emission standards. If one vehicle cannot be selected in accordance with the selection criteria employed in selecting the failed vehicle, then two vehicles may be selected (i.e., one vehicle to satisfy the exhaust emission vehicle selection criteria and one vehicle to satisfy the evaporative emission vehicle selection criteria). The vehicle selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicle selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emissions standards; or

(iii) Remove the vehicle configuration (or evaporative vehicle configuration, as applicable) which failed from his application and add a vehicle configuration(s) (or evaporative vehicle configuration(s), as applicable) not previously listed. The Administrator may require, if applicable, that the failed vehicle be modified to the new engine code (or evaporative emission code, as applicable) and demonstrate by testing that it meets applicable standards for which it was originally tested. In addition, the Administrator may select, in accordance with the vehicle selection criteria given in § 86.078–24(b), a new emission-data vehicle or vehicles. The vehicles selected to satisfy the exhaust emission vehicle selection criteria will be tested for compliance with exhaust emission standards only. The vehicles selected to satisfy the evaporative emission vehicle selection criteria will be tested for compliance with both exhaust and evaporative emission standards; or

(iv) Correct a component or system malfunction and show that with a correctly functioning system or component the failed vehicle meets applicable standards for which it was originally tested. The Administrator may require a new emission-data vehicle, of identical vehicle configuration (or evaporative vehicle configuration as applicable) to the failed vehicle, to be operated and tested for compliance with the applicable standards for which the failed vehicle was originally tested.

(5) For heavy-duty engines the manufacture may, at his option, proceed with any of the following alternatives with respect to any engine family represented by a test engine(s) determined not in compliance with applicable standards:

(i) Request a hearing under § 86.078–6; or

(ii) Delete from the application for certification the engines represented by the failing test engine. (Engine so deleted may be included in a later request for certification under § 86.078–32.) The Administrator will then select in place of each failing engine an alternate engine chosen in accordance with selection criteria employed in selecting the engine that failed; or

(iii) Modify the test engine and demonstrate by testing that it meets applicable standards. Another engine which is in all material respects the same as the first engine, as modified, shall then be operated and tested in accordance with applicable test procedures.

(6) If the manufacturer does not request a hearing or present the requested data under paragraphs (b)(4) or (b)(5) (as applicable) of this section, the Administrator will deny certification.

(c)(1) Notwithstanding the fact that any certification vehicle(s) (or certification engine(s)) may comply with other provisions of this subpart, the Administrator may withhold or deny the issuance of a certificate of conformity (or suspend or revoke any such certificate which has been issued) with respect to any such vehicle(s) (or engine(s)) if:

(i) The manufacturer submits false or incomplete information in his application for certification thereof;

(ii) The manufacturer renders inaccurate any test data which he submits pertaining thereto.

(iii) Any EPA Enforcement Officer is denied access on the terms specified in § 86.078–7(c) to any facility or portion thereof which contains any of the following:

(A) The vehicle (or engine);

(B) Any components used or considered for use in its modification or build up into a certification vehicle (or certification engine);

(C) Any production vehicle (or production engine) which is or will be claimed by the manufacturer to be covered by the certificate;

(D) Any step in the construction of a vehicle (or engine) described in paragraph (c)(1)(iii)(C) of this section;

(E) Any records, documents, reports, or histories required by this part to be kept concerning any of the above.

(iv) Any EPA Enforcement Officer is denied "reasonable assistance" (as defined in § 86.078–7(c)) in examining any of the items listed in paragraph (c)(1)(iii) of this section.

(v) [Reserved]

(2) The sanctions of withholding, denying, revoking, or suspending of a certificate may be imposed for the reasons in paragraphs (c)(1) (i), (ii), (iii), or (iv) of this section only when the infraction is substantial.

(3) In any case in which a manufacturer knowingly submits false or inaccurate information or knowingly renders inaccurate or invalid any test data or commits any other fraudulent acts and such acts contribute substantially to the Administrator's decision to issue a certificate of conformity, the Administrator may deem such certificate void ab initio.

(4) In any case in which certification of a vehicle (or engine) is proposed to be withheld, denied, revoked, or suspended under paragraph (c)(1)(iii), or (c)(1)(iv) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.078–7(c) in fact occurred, the manufacturer, if he wished to contend that, even though the violation occurred, the vehicle (or engine) in question was not involved in the violation to a degree that would warrant withholding denial, revocation, or suspension of certification under either paragraph (c)(1)(iii) or (c)(1)(iv) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(5) Any revocation or suspension of certification under paragraph (c)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.078–6 hereof.

(ii) Extend no further than to forbid the introduction into commerce of vehicles (or engines) previously covered by certification which are still in the hands of the manufacturer, except in cases of such fraud or other misconduct as makes certification invalid ab initio.

(6) The manufacturer may request in the form and manner specified in paragraph (b)(3) of this section that any determination made by the Administrator under paragraph (c)(1) of this section to withhold or deny certification be reviewed in a hearing conducted in accordance with § 86.078–6. If the Administrator finds, after a review of the request and supporting data, that the request raises a substantial factual issue he will grant the request with respect to such issue.

(d) *For light-duty vehicles and light-duty trucks.*—(1) *For light-duty vehicles*

*and light-duty trucks.* Notwithstanding the fact that any vehicle configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of comformity in whole or in part with respect to such vehicle configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.603; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.603; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.609; or

(iv) The manufacturer renders inaccurate any test data which he submits pursuant to § 86.609; or

(v) Any EPA Enforcement Officer is denied access to a facility on the terms specified in § 86.606.

(vi) Any EPA Enforcement Officer is denied the opportunity on the terms specified in § 86.606 to

(A) Monitor vehicle selection pursuant to § 86.607,

(B) Select vehicles for testing pursuant to § 86.607, or

(C) Monitor vehicle testing performed to satisfy any of the requirements of this part; or

(vii) Any EPA Enforcement Officer is denied "reasonable assistance" as defined in § 86.606 in examining any of the items listed in that section; or

(viii) The manufacturer refuses to comply with the requirements of §§ 86.604(a), 86.605, 86.607, 86.608, 86.610, or 86.611.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (d)(1) (i), (ii) or (viii) of this section where such refusal is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanctions of suspending a certificate may be imposed for the reasons in paragraphs (d)(1) (iii), (iv), (v), (vi), (vii) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision not to suspend or revoke a certificate of conformity in whole or in part, the Administrator may deem such certificate void from the date of such fraudulent act.

(5) In any case in which certification of a vehicle is proposed to be suspended under paragraph (d)(1)(v), (d)(1)(vi), or (d)(1)(vii) of this section, and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.606 in fact occurred, the manufacturer, if he wishes to contend that, even though the violation occurred, the vehicle configuration or engine family in question was not involved in the violation to a degree that would warrant suspension of certification under either paragraph (d)(1)(v), (d)(1)(vi), or (d)(1)(vii) of this section, shall have the burden of establishing that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (d)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.613 hereof and

(ii) Not apply to vehicles no longer in the hands of the manufacturer.

(e) *For heavy-duty vehicles and engines.*

(1) Notwithstanding the fact that any engine configuration or engine family may be covered by a valid outstanding certificate of conformity, the Administrator may suspend such outstanding certificate of conformity in whole or in part with respect to such engine configuration or engine family if:

(i) The manufacturer refuses to comply with the provisions of a test order issued by the Administrator pursuant to § 86.1003; or

(ii) The manufacturer refuses to comply with any of the requirements of § 86.1003; or

(iii) The manufacturer submits false or incomplete information in any report or information provided pursuant to the requirements of § 86.1009; or

(iv) The manufacturer renders inaccurate any test data submitted pursuant to § 86.1009; or

(v) Any EPA Enforcement Officer is denied the opportunity to conduct activities related to entry and access as authorized in § 86.1006 of this part and in a warrant or court order presented to the manufacturer or the party in charge of a facility in question; or

(vi) EPA Enforcement Officers are unable to conduct activities related to entry and access as authorized in § 86.1006 of this part because a manufacturer has located a facility in a foreign jurisdiction where local law prohibits those activities; or

(vii) The manufacturer refuses to or in fact does not comply with the requirements of §§ 86.1004(a), 86.1005, 86.1007, 86.1008, 86.1010, 86.1011, or 86.1013.

(2) The sanction of suspending a certificate may not be imposed for the reasons in paragraphs (e)(1) (i), (ii), or (vii) of this section where such refusal or denial is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with those requirements. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturers to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(3) The sanction of suspending a certificate may be imposed for the reasons outlined in paragraph (e)(1) (iii), (iv), or (v) of this section only when the infraction is substantial.

(4) In any case in which a manufacturer knowingly submitted false or inaccurate information or knowingly rendered inaccurate any test data or committed any other fraudulent acts, and such acts contributed substantially to the Administrator's original decision not to suspend or revoke a certificate of conformity in whole or in part, the Administrator may deem such certificate void from the data of such fraudulent act.

(5) In any case in which certification of a heavy-duty engine is proposed to be suspended under paragraph (e)(1)(v) of this section and in which the Administrator has presented to the manufacturer involved reasonable evidence that a violation of § 86.1006 in fact occurred, if the manufacturer wishes to contend that, although the violation occurred, the engine configuration or engine family in

question was not involved in the violation to a degree that would warrant suspension of certification under paragraph (e)(1)(v) of this section, he shall have the burden of establishing that contention to the satisfaction of the Administrator.

(6) Any suspension of certification under paragraph (e)(1) of this section shall:

(i) Be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.1014 and

(ii) Not apply to vehicles or engines no longer in the hands of the manufacturer.

(7) Any voiding of a certificate of conformity under paragraph (e)(4) of this section shall be made only after the manufacturer concerned has been offered an opportunity for a hearing conducted in accordance with § 86.1014.

18. A new § 86.084–35 is added and reads as follows:

**§ 86.084–35 Labeling.**

(a) The manufacturer of any motor vehicle (or motor vehicle engine) subject to the applicable emission standards of this subpart, shall, at the time of manufacture, affix a permanent legible label, of the type and in the manner described below, containing the information hereinafter provided, to all production models of such vehicles (or engines) available for sale to the public and covered by a certificate of conformity under § 86.079–30(a).

(1) *Light-duty vehicles and light-duty trucks.*—(i) *A permanent, legible label shall be affixed in a readily visible position in the engine compartment.*

(ii) The label shall be affixed by the vehicle manufacturer who has been issued the certificate of conformity for such vehicle, in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment which is easily detached from such vehicle.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label:

(A) The Label heading: Vehicle Emission Control Information;

(B) Full corporate name and trademark of the manufacturer;

(C) Engine displacement (in cubic inches), engine, family identification and evaporative family identification;

(D) Engine tuneup specifications and adjustments, as recommended by the manufacturer to the ultimate purchaser, including but not limited to idle speed(s), ignition timing, and idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), high idle speed, initial injection timing, and valve lash (as applicable) as well as other parameters deemed necessary by the manufacturer. These specifications should indicate the proper transmission position during tuneup and what accessories (e.g., air-conditioner), if any, should be in operation. If a manufacturer provides tuneup specifications and adjustments for his vehicle for operation at an altitude other than that at which compliance was demonstrated, e.g., adjustments for operation below 1,219 meters for vehicles which demonstrated compliance at elevations above 1,219 meters, the manufacturer may either include these specifications and adjustments on his engine compartment label, or may indicate on the label where these adjustments might be found, i.e., by reference to the owner's manual or shop manual.

(E) An unconditional statement of compliance with the appropriate model year U.S. Environmental Protection Agency regulations which apply to light-duty vehicles or light-duty trucks;

(F) The altitude at which the vehicle has demonstrated compliance with the applicable emission standards as specified by the certificate of conformity issued under § 86.079–30. (An example of an acceptable statement is: "Compliance demonstrated above/below 4,000 feet.")

(2) *Heavy-duty engines.* (i) A permanent legible label shall be affixed to the engine in a position in which it will be readily visible after installation in the vehicle.

(ii) The label shall be attached to an engine part necessary for normal engine operation and not normally requiring replacement during engine life.

(iii) The label shall contain the following information lettered in the English language in block letters and numerals which shall be of a color that contrasts with the background of the label:

(A) The label heading: IMPORTANT ENGINE INFORMATION.

(B) Full corporate name and trademark of manufacturer;

(C) Engine displacement (in cubic inches) and engine family and model designations;

(D) Date of engine manufacture (month and year);

(E) Engine specifications and adjustments as recommended by the manufacturer. These specifications should indicate the proper transmission position during tuneup and what accessories (e.g., air conditioner), if any, should be in operation;

(F) For gasoline-fueled engines the label should include the idle speed, ignition timing, and the idle air-fuel mixture setting procedure and value (e.g., idle CO, idle air-fuel ratio, idle speed drop), and valve lash.

(G) For Diesel engines the label should include the advertised hp. at rpm, fuel rate at advertised hp. in mm $^3$/stroke, valve lash, initial injection timing, and idle speed.

(H) The prominent statement: "(Manufacturer's corporate name) has determined that this engine has an average useful life of —— miles or —— hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(I) The subordinate addition to the statement in subparagraph (2)(iii)(H) of this paragraph: "This engine's actual life may vary depending on its service application. (For additional information see the owner's maintenance instructions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines for its useful life."

(iv) The label may be made up of one or more pieces: *Provided,* That all pieces are permanently attached to the same engine or vehicle part as applicable.

(b) The provisions of this section shall not prevent a manufacturer from also reciting on the label that such vehicle (or engine) conforms to any applicable State emission standards for new motor vehicles (or new motor vehicle engines) or any other information that such manufacturer deems necessary for, or useful to, the proper operation and satisfactory maintenance of the vehicle (or engine).

(c)(1) The manufacturer of any light-duty vehicle or light-duty truck subject to the emission standards of this subpart, shall, in addition and subsequent to setting forth those statements on the label required by the Department of Transportation (DOT) pursuant to 49 CFR 567.4, set forth, on the DOT label or on an additional label located in proximity to the DOT label and affixed as described in 49 CFR 567.4(b), the following information in the English language, lettered in block letters and numerals not less than three thirty-seconds of an inch high, of a color that contrasts with the background of the label:

(i) The heading: "Vehicle Emission Control Information";

(ii) The statement: "This Vehicle Conforms to U.S. EPA Regulations Applicable to 1979 Model Year New Motor Vehicles."

(iii) One of the following statements, as applicable, in letters and numerals not less than six thirty-seconds of an inch high and of a color that contrasts with the background of the label:

(A) For all vehicles certified as noncatalyst-equipped: "NON-CATALYST;"

(B) For all vehicles certified as catalyst-equipped which are included in a manufacturer's catalyst control program for which approval has been given by the Administrator: "CATALYST-APPROVED FOR IMPORT;"

(C) For all vehicles certified as catalyst-equipped which are not included in a manufacturer's catalyst control program for which prior approval has been given by the Administrator: "CATALYST."

(2) In lieu of selecting either of the labeling options of paragraph (c)(1) of this section, the manufacturer may add the information required by paragraph (c)(1)(iii) of this section to the label required by paragraph (a) of this section. The required information will be set forth in the manner prescribed by paragraph (c)(1)(iii) of this section.

(d) Incomplete light-duty trucks or incomplete heavy-duty vehicles optionally certified as light-duty trucks shall have the following statement printed on the label required in paragraph (a)(1) of this section in lieu of the statement required by paragraph (a)(1)(iii)(E) of this section: "This vehicle conforms to U.S. EPA regulations applicable to 19— Model Year New Motor Vehicles when completed at a maximum curb weight of — pounds and a maximum frontal area of — square feet."

(e)(1) Incomplete heavy-duty vehicles having an 8,500-pound gross vehicle weight rating or less shall have the following prominent statement printed on the label required in paragraph (a)(2) of this section in lieu of the statement required by paragraph (a)(2)(iii)(H) of this section: "(Manufacturer's corporate name) has determined that this engine has an average useful life of —— miles or —— hours of operation, whichever occurs first." The manufacturer may alter this statement only to express the useful life in terms other than miles or hours (e.g., years, or hours only).

(2) The subordinate addition to the statement in subparagraph (1) of this paragraph: "This engine's actual life may vary depending on its service application. (For additional information see the owner's maintenance instructions.) This engine conforms to U.S. EPA regulations applicable to 19— Model Year New Heavy-Duty Engines when installed in a vehicle completed at a curb weight of more than 6,000 pounds or with a frontal area greater than 45 square feet for its useful life."

(f) The manufacturer of any incomplete vehicle shall notify the purchaser of such vehicle of any curb weight, frontal area, or gross vehicle weight rating limitations affecting the emissions certificate applicable to that vehicle. This notification shall be transmitted in a manner consistent with the National Highway Traffic Safety Administration safety notification requirements published in 49 CFR part 568.

19. A new § 86.084–38 is added and reads as follows:

**§ 86.084–38 Maintenance instructions.**

(a) The manufacturer shall furnish or cause to be furnished to the purchaser of each new motor vehicle (or motor vehicle engine) subject to the standards prescribed in §§86.078–8 through 86.078–11 as applicable, written instructions for the maintenance and use of the vehicle (or engine) by the purchaser as may be reasonable and necessary to assure the proper functioning of emission control systems.

(1) Such instructions shall be provided for those vehicle and engine components listed in Appendix VI to this part (and for any other components) to the extent that maintenance of these components is necessary to assure the proper functioning of emission control systems.

(2) Such instructions shall be in clear, and to the extent practicable, nontechnical language.

(b) The maintenance instructions required by this section shall contain a general description of the documentation which the manufacturer will require from the ultimate purchaser or any subsequent purchaser as evidence of compliance with the instructions.

(c) For gasoline-fueled light-duty vehicles and light-duty trucks.

(1) Such instructions shall specify the performance of all scheduled maintenance performed by the manufacturer under § 86.078–25(a), and shall explain the conditions under which EGR system and catalytic converter maintenance are to be performed (e.g., what type of warning device is being employed and whether the device is activated by component failure or the need for periodic maintenance).

(2) [Reserved]

(3) [Reserved]

(d) For Diesel light-duty vehicles and light-duty trucks.

(1) Such instructions shall specify the performance of all scheduled maintenance performed by the manufacturer under § 86.078–25(a) and shall explain the conditions under which EGR system and catalytic converter maintenance are to be performed (e.g., what type of warning device is being employed and whether the device is activated by component failure or the need for periodic maintenance).

(2) [Reserved]

(e) *For heavy-duty engines.*

(1) Maintenance instructions shall specify the performance of all scheduled emission-related maintenance approved by the Administrator under § 86.084–25(c). Scheduled emission-related maintenance in addition to that performed under § 86.084–25(c) may be recommended for reasons such as to offset the effects of operating conditions which differ from the conditions experienced by the durability-data engines. Such additional recommended maintenance shall be clearly differentiated, in a form approved by the Administrator from that approved under § 86.084–25(c). The instructions may schedule maintenance on a calendar time basis, mileage basis, engine service time basis, or combinations of each.

(2) Such instructions shall specify the useful life of the engine as determined by the manufacturer under § 86.084–21(b)(4)(ii)(B). This period of use shall be expressed as a period of engine or vehicle operation or as an equivalent vehicle mileage (or both). The manufacturer shall also present the method(s) by which the need for engine rebuild can be determined, including the criteria and values required in § 86.084–21(b)(4)(ii)(C) and the necessary measurement equipment and instrumentation. The manufacturer shall also include in the instructions an explanation of how it determined both the average useful life and the values of the rebuild criteria. An explanation may be included of how the useful life is determined for an individual engine (the first occurring of either the average useful life or the need for rebuild) and of how the actual useful lives of engines used in various applications are expected to differ from the average useful life. The explanation(s) shall be in clear, nontechnical language that is understandable to the ultimate purchaser.

20. A new § 86.084–39 is added and reads as follows:

**§ 86.084–39 Automatic expiration of reporting and recordkeeping requirements.**

(a) [Reserved]

(b) [Reserved]

(c) *Heavy-duty engines.*

(1) All of the recordkeeping and reporting requirements in this subpart for which 1984 is the first model year of implementation shall automatically

expire on December 31, 1988, unless the Administrator acts to retain them.

(2) If the Administrator determines that the reporting and recordkeeping requirements should be retained he/she shall also at that time establish the subsequent date of expiration, which shall not be later than December 31, 1993.

21. A new § 86.085–11 is added and reads as follows:

**§ 86.085–11 Emission standards for 1985 and later model year diesel heavy-duty engines.**

(a)(1) Exhaust emissions from new 1985 and later model year diesel heavy-duty engines shall not exceed the following:

(i) *Hydrocarbons.* 1.3 grams per brake horsepower hour, as measured under transient operating conditions (Subpart N).

(ii) *Carbon monoxide.* (A) 15.5 grams per brake horsepower hour as measured under transient operating conditions (Subpart N).

(iii) *Oxides of nitrogen.* 10.7 grams per brake horsepower hour, as measured under transient operating conditions (Subpart N).

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust over operating schedules as set forth in Subparts N or P and measured and calculated in accordance with those procedures.

(b)(1) The opacity of spoke emissions from new 1984 and later model year diesel heavy-duty engines shall not exceed:

(i) 20 percent during the engine acceleration mode.

(ii) 15 percent during the engine lugging mode.

(iii) 50 percent during the peaks in either mode.

(2) The standards set forth in paragraph (b)(1) of this section refer to exhaust smoke emissions generated under the conditions set forth in Subpart I of this part and measured and calculated in accordance with those procedures.

(c) No crankcase emissions shall be discharged into the ambient atmosphere from any new 1984 model year naturally-aspirated diesel heavy-duty engine. This provision does not apply to turbocharged engines.

(d) Every manufacturer of new motor vehicle engines subject to the standards prescribed in this section shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motor vehicle engines in accordance with applicable procedures in Subparts I, N, or P of this part to ascertain that such test engines meet the requirements of paragraphs (a), (b), and (c) of this section.

22. A new Subpart K is added to Part 86 and reads as follows:

## Subpart K—Selective Enforcement Auditing of New Gasoline-Fueled and Diesel Heavy-Duty Engines

Sec.

86.1001–84 Applicability.
86.1002–84 Definitions.
86.1003–84 Test orders.
86.1004–84 Testing by the Administrator.
86.1005–84 Maintenance of records; submittal of information.
86.1006–84 Entry and access.
86.1007–84 Sample selection.
86.1008–84 Test procedures.
86.1009–84 Calculation and reporting of test results.
86.1010–84 Compliance with acceptable quality level and passing and failing criteria for Selective Enforcement Audits.
86.1011–84 [Reserved]
86.1012–84 Suspension and revocation of certificates of conformity.
86.1013–84 [Reserved]
86.1014–84 Hearings on suspension, revocation and voiding of certificates of conformity.

## Subpart K—Selective Enforcement Auditing of New Gasoline-Fueled and Diesel Heavy-Duty Engines

**§ 86.1001–84 Applicability.**

All provisions of this subpart are applicable for 1984 and later model year gasoline-fueled and diesel heavy-duty engines, effective January 1, 1984.

**§ 86.1002–84 Definitions.**

(a) The definitions in this section apply to this subpart.

(b) As used in this subpart, all terms not defined herein shall have the meaning given them in the Act.

"Acceptable Quality Level" (AQL) means the maximum percentage of failing engines that, for purposes of sampling inspection, can be considered satisfactory as a process average.

"Configuration" means a subclassification, if any, of an engine family for which a separate projected sales figure is listed in the manufacturer's Application for Certification and which can be described on the basis of emission control system, governed speed, injector size, engine calibration, and other parameters which may be designated by the Administrator.

"In the Hands of the Manufacturer" means that engines are still in the possession of the manufacturer and have not had their bills of lading transferred to another person for the purpose of transporting.

"Test Sample" means the collection of engines of the same configuration which have been selected to receive exhaust emission testing.

**§ 86.1003–84 Test orders.**

(a) The Administrator will require any testing under this subpart by means of a test order addressed to the manufacturer.

(b) The test order will be signed by the Assistant Administrator for Enforcement or his designee. The test order will be delivered in person by an EPA Enforcement Officer to a company representative or sent by registered mail, return receipt requested, to the manufacturer's representative who signs the Application for Certification submitted by the manufacturer pursuant to the requirements of the applicable sections of Subpart A of this part. Upon receipt of a test order, the manufacturer shall comply with all of the provisions of this subpart and instructions in the test order.

(c)(1) The test order will specify the engine configuration selected for testing, the manufacturer's vehicle or engine assembly plant or associated storage facility from which the engines must be selected, the time and location at which engines must be selected, and the procedure by which engines of the specified configuration must be selected. The test order may include alternative configurations to be selected for testing in the event that engines of the first specified configuration are not available for testing because such engines are not being manufactured at the specified assembly plant, not being manufactured during the specified time, or not being stored at the specified assembly plant or associated storage facility. In addition, the test order may include other directions or information essential to the administration of the required testing.

(2) The following instructions are applicable to each test order issued under this subpart:

(i) The manufacturer shall make the following documents available to EPA Enforcement Officers upon request:

(A) A properly filed and current application for certification, following the format prescribed by the EPA for the appropriate model year; and

(B) A copy of the shop manual and dealer service bulletins for the configurations being tested.

(ii) Only one mechanic at a time per engine shall make authorized checks, adjustments, or repairs, unless a particular check, adjustment, or repair requires a second mechanic as indicated in the shop manual or dealer service bulletins.

(iii) A mechanic shall not perform any check, adjustment, or repair without an

Enforcement Officer present unless otherwise authorized.

(iv) The manufacturer shall utilize only those tools and test equipment utilized by its dealers or those dealers using its engines when performing authorized checks, adjustments, or repairs.

(d) A manufacturer may indicate preferred assembly plants or associated storage facilities for the various engine families produced by the manufacturer for selection of engines in response to a test order. This shall be accomplished by submitting a list of engine families and the corresponding assembly plants or associated storage facilities from which the manufacturer desires to have engines selected for testing. In order that a manufacturer's preferred location be considered for inclusion in a test order for a configuration of a particular engine family, the list must be submitted prior to issuance of the test order. Notwithstanding the fact that a manufacturer has submitted the above list, the Administrator may order testing at other than a preferred plant.

(e) Upon receipt of a test order, a manufacturer shall proceed in accordance with the provisions of this subpart.

(f)(1) During a given model year, the Administrator will not issue to a heavy-duty engine manufacturer more Selective Enforcement Auditing (SEA) test orders than an annual limit determined by dividing the projected sales of all of its heavy-duty engines bound for the United States market for that year, as made by the manufacturer in its Application for Certification, by 30,000 and rounding to the nearest whole number, unless the projected sales are less than 15,000, in which case the number is one.

(2) Any SEA test order for which the configuration fails in accordance with § 86.1010-84 or for which testing is not completed will not be counted against the annual limit.

(3) When the annual limit has been met, the Administrator may issue additional test orders for those configurations for which evidence exists indicating noncompliance. An SEA test order issued on this basis will include a statement as to the reason for its issuance.

**§ 86.1004-84 Testing by the Administrator.**

(a) The Administrator may require by test order that engines of a specified configuration be selected in a manner consistent with the requirements of § 86.1007-84 and submitted to him at such place as he may designate for the purpose of conducting emission tests. These tests shall be conducted in accordance with § 86.1008-84 of these regulations to determine whether engines manufactured by the manufacturer conform with the regulations with respect to which the certificate of conformity was issued.

(b)(1) Whenever the Administrator conducts a test on a test engine or the Administrator and manufacturer each conduct a test on the same test engine, the results of the Administrator's test shall comprise the official data for that engine.

(2) Whenever the manufacturer conducts all tests on a test engine, the manufacturer's test data will be accepted as the official data: *Provided*, That if the Administrator makes a determination based on testing under paragraph (a) of this section that there is a substantial lack of agreement between the manufacturer's test results and the Adminstrator's test results, no manufacturer's test data from the manufacturer's test facility will be accepted for purposes of this subpart.

(c) In the event that testing conducted under paragraph (a) of this section demonstrates a lack of agreement under paragraph (b)(2) of this section, the Administrator will:

(1) Notify the manufacturer in writing of his determination that the test facility is inappropriate for conducting the tests required by this subpart and the reasons therefor, and

(2) Reinstate any manufacturer's data upon a showing by the manufacturer that the data acquired under paragraph (a) of this section was erroneous and the manufacturer's data was correct.

(d) The manufacturer may request in writing that the Administrator reconsider his determination in paragraph (b)(2) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

**§ 86.1005-84 Maintenance of records; submittal of information.**

(a) The manufacturer of any new heavy-duty engine subject to any of the provisions of this subpart shall establish, maintain, and retain the following adequately organized and indexed records:

(1) *General records.* A description of all equipment used to test engines in accordance with § 86.1008-84, pursuant to a test order issued under this subpart, specifically—

(i) If testing heavy-duty gasoline engines, the equipment requirements specified in §§ 86.1306-84 and 86.1506-84 of this part; and

(ii) If testing heavy-duty diesel engines, the equipment requirements specified in §§ 86.1306-84, 86.1506-84, 86.879-6, 86.879-8, and 86.879-9 of this part. (§ 86.306-79 for Subpart D testing only.)

(2) *Individual records.* These records pertain to each audit conducted pursuant to this subpart.

(i) A complete record of all emission tests performed pursuant to this subpart (except tests performed by EPA directly), including all individual worksheets and/or other documentation relating to each test, or exact copies thereof, specifically—

(A) If testing heavy-duty gasoline engines, the record requirements specified in §§ 86.1342-84 and 86.1542-84 of this part; and

(B) If testing heavy-duty diesel engines, the record requirements specified in §§ 86.1342-84, 86.1542-84, and 86.879-10. (§ 86.337-79 for Subpart D testing only.)

(ii) The date, time, and location of each test; the number of hours of service accumulated on each engine when the test began and ended; and the names of all personnel, including supervisory personnel, involved in the conduct of the audit.

(iii) A record and description of any repairs performed prior to and/or subsequent to approval by the Administrator, giving the date and time of the repair, the reason for it, the person authorizing it, and names of all personnel involved in the supervising and performance of the repair.

(iv) The date when the engine was shipped from the assembly plant or associated storage facility and when it was received by the test facility.

(v) A brief description of any significant events, commencing with the test engine selection process, but not described by any entry under one of the previous headings, including such extraordinary events as engine damage during shipment.

(b) All records required to be maintained under this subpart shall be retained by the manufacturer for a period of one (1) year after completion of all testing in response to a test order. Records may be retained as hard copy or reduced to microfilm, punch cards, etc., depending upon the manufacturer's record retention procedure: *Provided*, That in every case all the information contained in the hard copy shall be retained.

(c) Heavy-duty engine manufacturers shall submit to the Administrator on a quarterly basis no later than thirty days after the close of each calendar quarter or other reporting schedule as approved by the Administrator all emission data,

whether or not from FTP testing, from testing of production engines. The following information shall be provided with respect to such engines:

(1) Description of quality audit or other program under which production engines are tested including a description of sampling plans, method of sample selection, sampling rates, and emission test employed.

(2) EPA engine family.

(3) Engine identification number.

(4) Configuration.

(5) Engine model year and build date.

(6) Number of hours of service accumulated on engine prior to testing.

(7) Description of any preparation, maintenance, modification or repair on test engines.

(8) Emission test results for each valid test. If the above information is available on Automatic Data Processing (ADP) equipment, it shall be submitted on an ADP storage device such as magnetic tape, magnetic disc, punched cards, etc.: *Provided,* That the manufacturer's storage device is compatible with EPA's ADP equipment. EPA will return ADP equipment submitted by the manufacturer or, upon a request by the manufacturer, furnish the necessary ADP storage devices. Information submitted once need not be submitted again if there are no subsequent changes.

(d) Pursuant to a request made by the Administrator, the manufacturer shall submit to him the following information with regard to engine production:

(1) Number of engines, by configuration and assembly plant, scheduled for production for the time period designated in the request.

(2) Number of engines, by configuration and assembly plant, produced during the time period designated in the request which are complete for introduction into commerce.

(e) Nothing in this section shall limit the Administrator's discretion in requiring the manufacturer to retain additional records or submit information not specifically required by this section.

(f) All reports, submissions, notifications, and requests for approvals made under this subpart shall be addressed to: Director, Manufacturers Operations Division, U.S. Environmental Protection Agency, EN-340, 401 M Street S.W., Washington, D.C. 20460.

**§ 86.1006-84 Entry and access.**

(a) In order to allow the Administrator to determine whether a manufacturer is complying with the provisions of this subpart and a test order issued thereunder, EPA Enforcement Officers are authorized to enter during operating hours and upon presentation of credentials any of the following:

(1) Any facility where any engine to be introduced into commerce or any emission related component is manufactured, assembled, or stored;

(2) Any facility where any tests conducted pursuant to a test order or any procedures or activities connected with such tests are or were performed;

(3) Any facility where any engine which is being tested, was tested, or will be tested is present; and

(4) Any facility where any record or other document relating to any of the above is located.

(b) Upon admission to any facility referred to in paragraph (a) of this section, EPA Enforcement Officers are authorized to perform the following inspection-related activities:

(1) To inspect and monitor any aspects of such engine manufacture, assembly, storage, testing and other procedures, and the facilities in which such procedures are conducted;

(2) To inspect and monitor any part or aspect of such test procedures or activities, including, but not limited to, monitoring engine selection, preparation, service accumulation, preconditioning, emission test cycles, and maintenance; and to verify calibration of test equipment;

(3) To inspect and make copies of any records or documents related to the assembly, storage, selection and testing of an engine in compliance with a test order; and

(4) To inspect and photograph any part or aspect of any such engine and any component used in the assembly thereof that is reasonably related to the purpose of the entry.

(c) EPA Enforcement Officers are authorized to obtain reasonable assistance without charge from those in charge of a facility to help them discharge any function listed in this subpart and are authorized to request the recipient of a test order to make arrangements with those in charge of a facility operated for its benefit to furnish such reasonable assisitance without charge to EPA whether or not the recipient controls the facility.

(d) EPA Enforcement Officers are authorized to seek a warrant or court order authorizing the EPA Enforcement Officers to conduct activities related to entry and access as authorized in this section, as appropriate, to execute the functions specified in this section. EPA Enforcement Officers may proceed *ex parte* to obtain a warrant whether or not the Enforcement Officers first attempted to seek permission of the recipient of the test order or the party in charge of the facilities in question to conduct activities related to entry and access as authorized in this section.

(e) EPA Enforcement Officers who present a warrant or court order as described in paragraph (d) of this section shall be permitted to conduct activities related to entry and access as authorized in this section and as described in the warrant or court order. A recipient of a test order is required to cause those in charge of its facility or a facility operated for its benefit to permit EPA Enforcement Officers to conduct activities related to entry and access as authorized in this section pursuant to a warrant or court order whether or not the recipient controls the facility. In the absence of such a warrant or court order, EPA Enforcement Officers may conduct activities related to entry and access as authorized in this section only upon the consent of the recipient of the test order or the party in charge of the facilities in question.

(f) It is not a violation of this Part or the Clean Air Act for any person to refuse to permit EPA Enforcement Officers to conduct activities related to entry and access as authorized in this section without a warrant or court order.

(g) A manufacturer is responsible for locating its foreign testing and manufacturing facilities in jurisdictions in which local foreign law does not prohibit EPA Enforcement Officers from conducting the entry and access activities specified in this section. EPA will not attempt to make any inspections which it has been informed that local foreign law prohibits.

(h) For purposes of this section:

(1) "Presentation of Credentials" shall mean display of the document designating a person as an EPA Enforcement Officer.

(2) Where engine storage areas or facilities are concerned, "operating hours" shall mean all times during which personnel other than custodial personnel are at work in the vicinity of the area or facility and have access to it.

(3) Where facilities or areas other than those covered by paragraph (h)(2) of this section are concerned, "operating hours" shall mean all times during which an assmbly line is in operation, or engine assembly is taking place, or all times during which testing, repair, service accumulation, preparation or compilation of records, or any other procedure or activity related to testing, or to engine manufacture or assembly is being carried out in a facility.

(4) "Reasonable assistance" includes, but is not limited to, clerical, copying, interpreting and translating services, and the making available on an EPA Enforcement Officer's request of personnel of the facility being inspected

during their working hours to inform the EPA Enforcement Officer of how the facility operates and to answer his questions. Any employee whom an EPA Enforcement Officer requests the manufacturer to cause to appear for questioning will be entitled to be accompanied, represented and advised by counsel.

**§ 86.1007-84 Sample selection.**

(a) Engines comprising a test sample which are required to be tested, pursuant to a test order issued in accordance with this subpart, will be selected at the location and in the manner specified in the test order. If a manufacturer determines that the test engines can not be selected in the manner specified in the test order, an alternative selection procedure may be employed: *Provided,* That the manufacturer requests approval of the alternative procedure in advance of the start of test sample selection and that the Administrator approves the procedure.

(b) The test engines of the configuration selected for testing shall have been assembled by the manufacturer for distribution in commerce using his normal mass production processes. If the test engines are selected at a location where they do not have their operational and emission control systems installed, the test order will specify the manner and location for selection of components to complete assembly of the engines. The manufacturer shall assemble these components onto the test engines using normal assembly and quality control procedures as documented by the manufacturer.

(c) No quality control, testing, or assembly procedures shall be used on the completed test engine or any portion thereof, including parts and subassemblies, that will not be used during the production and assembly of all other engines of that configuration.

(d) The test order may specify that EPA Enforcement Officers, rather than the manufacturer, will select the test engines according to the method specified in the test order.

(e) The order in which test engines are selected determines the order in which test results are to be used in applying the sampling plan in accordance with § 86.1010-84.

(f) The manufacturer shall keep on hand all untested engines comprising the test sample until a pass or fail decision is reached in accordance with §86.1010-83(d). The manufacturer may ship any tested engine which has not failed in accordance with §86.1010-84(b). However, once the manufacturer ships any test engine, it relinquishes the prerogative to conduct retests as provided in § 86.1008-84(i).

**§ 86.1008-84 Test procedures.**

(a)(1) The prescribed test procedure is the Federal Test Procedure as described in Subparts N, I and P of this Part.

(2) If a heavy-duty diesel engine manufacturer uses the test procedure in Subpart D of this part to certify 1984 model year engines pursuant to § 86.084-11(a)(1)(i)(B), (a)(1)(ii)(B), (a)(1)(iii)(B), and (a)(2), that manufacturer shall use the test procedure in Subpart D when conducting emission tests on those engines pursuant to this subpart.

(b)(1) The manufacturer shall not adjust, repair, prepare, or modify the engines selected for testing and shall not perform any emission tests on engines selected for testing pursuant to the test order unless such adjustment, repair, preparation, modification, and/or tests are documented in the manufacturer's engine assembly and inspection procedures and are actually performed or unless such adjustments and/or tests are required or permitted under this subpart or are approved in advance by the Administrator.

(2) For 1984 and later model years the Administrator may adjust or cause to be adjusted any engine parameter which the Administrator has determined to be subject to adjustment for certification and Selective Enforcement Audit testing in accordance with § 86.084-22(e)(1), to any setting within the physically adjustable range of that parameter, as determined by the Administrator in accordance with § 86.084-22(e)(3)(ii), prior to the performance of any tests. However, if the idle speed parameter is one which the Administrator has determined to be subject to adjustment, the Administrator shall not adjust it to any setting which causes a lower engine idle speed than would have been possible within the physically adjustable range of the idle speed parameter if the manufacturer had accumulated 125 hours of service on the engine under paragraph (c) of this section, all other parameters being identically adjusted for the purpose of the comparison. The Administrator, in making or specifying such adjustments, may consider the effect of the deviation from the manufacturer's recommended setting on emissions performance characteristics as well as the likelihood that similar settings will occur on in-use heavy-duty engines. In determining likelihood, the Administrator may consider factors such as, but not limited to, the effect of the adjustment on engine performance characteristics and surveillance information from similar in-use engines.

(c) The manufacturer may accumulate up to 125 hours of service on each selected engine prior to performing exhaust emission testing. Service accumulation may be performed in any manner the manufacturer desires.

(1) The manufacturer shall accumulate service at a minimum rate of 16 hours during each 24 hour period, unless otherwise provided by the Administrator.

(2) Service accumulation shall be performed on a sufficient number of test engines during each 24 hour period to assure that the number of engines tested per day fulfills the requirements of paragraph (g) of this section.

(d) No maintenance will be performed on test engines after selection for testing nor will any test engine substitution or replacement be allowed, unless requested of the Administrator by the manufacturer and approved by the Administrator in advance of the performance of any maintenance or engine substitution.

(e) The manufacturer will be allowed 24 hours to ship test engines from the assembly plant or associated storage facility to the test facility if the test facility is not located at or in close proximity to the plant or storage facility: *Except,* That the Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) If an engine is incapable of completing the service accumulation or emission tests because of engine malfunction, the manufacturer may request that the Administrator authorize the repair or replacement of the engine. Any replacement engines will be selected in a manner prescribed in the test order.

(g) Within one working day of receipt of the test order, the manufacturer shall notify the Administrator which test facility will be used to comply with the test order. If no test cells are available at a desired facility, the manufacturer must provide alternate testing capability satisfactory to the Administrator.

(1) Heavy-duty engine manufacturers with projected annual sales of all of its heavy-duty engines bound for the United States market of 30,000 or greater, as made in their respective Applications for Certification, shall complete emission testing at their testing facility on a minimum of two engines per 24 hour period, including voided tests.

(2) Heavy-duty engine manufacturers with projected annual sales of all of its heavy-duty engines bound for the United States market of less than 30,000,

as made in their respective Applications for Certification, shall complete emission testing at their testing facility on a minimum of one engine per 24 hour period, including voided tests.

(3) The Administrator may approve a longer period of time for conducting emission tests based upon a request by a manufacturer accompanied by a satisfactory justification.

(h) The manufacturer shall perform test engine selection, shipping, preparation, service accumulation, and testing in such a manner as to assure that the audit is performed in an expeditious manner.

(i) The manufacturer will be permitted to retest any engines tested during a Selective Enforcement Audit once a fail decision for the audit has been reached in accordance with § 86.1010–84(d) based on the first test on each engine. Each engine can be tested a total of three times but they all must be tested the same number of times. The manufacturer may accumulate additional service before conducting a retest, although the total amount of service accumulation on each engine prior to testing shall not exceed 125 hours.

**§ 86.1009–84 Calculation and reporting of test results.**

(a) Initial test results shall be calculated following the Federal Test Procedure specified in paragraph (a) of § 86.1008–84.

(b) Final test results shall be calculated by summing the initial test results derived in paragraph (a) of this section for each test engine, dividing by the number of tests conducted on the engine, and rounding in accordance with ASTM E29–67 to two places to the right of the decimal point.

(c) *Final deteriorated test results.* (1) The final deteriorated test results for each engine tested according to Subpart D, N or P of this Part shall be calculated by multiplying the final test results by the appropriate deterioration factor, derived from the certification process for the engine family-control system combination and model year for the selected configuration to which the test engine belongs. If the deterioration factor computed during the certification process is less than one, that deterioration factor will be one.

(2) The final deteriorated test results for each engine tested according to Subpart I of this Part shall be calculated by adding the appropriate deterioration factor, derived from the certification process for the engine family-control system combination and model year for the selected configuration to which the test engine belongs, to the final test results. If the deterioration factor computed during the certification process is less than zero, that deterioration factor will be zero.

(3) The final deteriorated test results shall be rounded, in accordance with ASTM E29–67, to the number of decimal places contained in the appropriate standard.

(d) Within five working days after completion of testing of all engines pursuant to a test order, the manufacturer shall submit to the Administrator a report which shall include the following:

(1) The location and description of the manufacturer's exhaust emission test facilities which were utilized to conduct testing reported pursuant to this section.

(2) The applicable standards against which the engines were tested.

(3) Deterioration factors for the engine family to which the selected configuration belongs.

(4) A description of the engine and any emission related component selection method used.

(5) For each test conducted,

(i) Test engine description, including:

(A) Configuration and engine family identification,

(B) Year, make, and build date,

(C) Engine identification number, and

(D) Number of hours of service accumulated on engine prior to testing.

(ii) Location where service accumulation was conducted and description of accumulation procedure and schedule.

(iii) Test number, date, initial test results before and after rounding, final test results and final deteriorated test results for all exhaust emission tests, whether valid or invalid, and the reason for invalidation, if applicable.

(iv) A complete description of any modification, repair, preparation, maintenance, and/or testing which was performed on the test engine and has not been reported pursuant to any other paragraph of this subpart and will not be performed on all other production engines.

(v) Where a replacement engine was authorized by the Administrator, the reason for the replacement and the information in paragraph (d)(5)(iii) of this section, if any, for the replacement engine.

(vi) Any other information the Administrator may request relevant to the determination as to whether the new heavy-duty engines being manufactured by the manufacturer do in fact conform with the regulations with respect to which the certificate of conformity was issued.

(6) The following statement and endorsement: This report is submitted pursuant to section 206 and section 208 of the Clean Air Act. All testing for which data is reported herein was conducted in strict conformance with applicable regulations under 40 CFR Part 86 et seq. All the data reported herein is a true and accurate representation of such testing. All other information reported herein is, to the best of

Company name ———————

knowledge, true and accurate. I am aware of the penalties associated with violations of the Clean Air Act and the regulations thereunder.

Authorized company representative ———

**§ 86.1010–84 Compliance with acceptable quality level and passing and failing criteria for Selective Enforcement Audits.**

(a) The prescribed acceptable quality level is 10 percent.

(b) A failed engine is one whose final deteriorated test results pursuant to § 86.1009–84(c), for one or more of the applicable exhaust pollutants, exceed the applicable emission standard.

(c) The manufacturer shall test engines comprising the test sample until a pass decision is reached for all pollutants or a fail decision is reached for one pollutant. A pass decision is reached when the cumulative number of failed engines, as defined in paragraph (b) of this section, for each pollutant is less than or equal to the pass decision number appropriate to the cumulative number of engines tested. A fail decision is reached when the cumulative number of failed engines for one or more pollutants is greater than or equal to the fail decision number appropriate to the cumulative number of engines tested. The pass and fail decision numbers associated with the cumulative number of engines tested shall be determined by use of the tables in Appendix X of this part appropriate for the annual projected sales as made by the manufacturer in its Application for Certification. In the Tables in Appendix X, sampling plan "stage" refers to the cumulative number of engines tested. Once a pass or fail decision has been made for a particular pollutant, the number of engines whose final deteriorated test results exceed the emission standard for that pollutant shall not be considered any further for the purposes of the audit.

(d) Passing or failing of an SEA audit takes place when the decision is made on the last engine required to make a decision under paragraph (c) of this section.

(e) The Administrator may terminate testing earlier than required in paragraph (c) of this section.

(f) [Reserved]

(g) [Reserved]

**§ 86.1011-84 [Reserved]**

**§ 86.1012-84 Suspension and revocation of certificates of conformity.**

(a) The certificate of conformity is suspended with respect to any engine failing pursuant to paragraph (b) of § 86.1010-84 effective from the time that testing of that engine is completed.

(b) The Administrator may suspend the certificate of conformity for a configuration which does not pass an SEA, pursuant to paragraph § 86.1010-84(c), based on the first test or all tests conducted on each engine. This suspension shall not occur before ten days after failure to pass the audit.

(c) [Reserved]

(d) [Reserved]

(e) If the results of testing pursuant to these regulations indicate that engines of a particular configuration produced at one plant of a manufacturer do not conform to the regulations with respect to which the certificate of conformity was issued, the Administrator may suspend the certificate of conformity with respect to that configuration for engines manufactured by the manufacturer at all other points.

(f) [Reserved]

(g) The Administrator will notify the manufacturer in writing of any suspension or revocation of a certificate of conformity in whole or in part: *Except,* That the certificate is immediately suspended with respect to any failed engines as provided for in paragraph (a) of this section.

(h) The Administrator may revoke a certificate of conformity for a configuration when the certificate has been suspended pursuant to paragraph (b), (c) or (e) of this section if the proposed remedy for the nonconformity, as reported by the manufacturer to the Administrator, is one requiring a design change or changes to the engine and/or emission control system as described in the Application for Certification of the affected configuration.

(i) Once a certificate has been suspended for a failed engine as provided for in paragraph (a) of this section, the manufacturer must take the following actions:

(1) Before the certificate is reinstated for that failed engine,

(i) Remedy the nonconformity, and

(ii) Demonstrate that the engine conforms to the applicable standards by retesting the engine in accordance with these regulations.

(2) Submit a written report to the Administrator, within five working days after successful completion of testing on the failed engine, which contains a description of the remedy and test results for each engine in addition to other information that may be required by this regulation.

(j) Once a certificate for a failed configuration has been suspended pursuant to paragraph (b), (c) or (e) of this section, the manufacturer must take the following actions before the Administrator will consider reinstating such certificate:

(1) Submit a written report to the Administrator which identifies the reason for the noncompliance of the engines, describes the proposed remedy, including a description of any proposed quality control and/or quality assurance measures to be taken by the manufacturer to prevent future occurrences of the problem, and states the date on which the remedies will be implemented, and

(2) Demonstrate that the engine configuration for which the certificate of conformity has been suspended does in fact comply with these regulations by testing engines selected from normal production runs of that engine configuration, at the plant(s) or associated storage facilities specified by the Administrator, in accordance with the conditions specified in the initial test order; *Except,* That if the manufacturer elects to continue testing individual engines after suspension of a certificate, the certificate is reinstated for any engine actually determined to be in conformance with the applicable standards through testing in accordance with the applicable test procedures: *Provided,* That the Administrator has not revoked the certificate pursuant to paragraph (h) of this section.

(k) Once the certificate has been revoked for a configuration and the manufacturer desires to continue introduction into commerce of such configuration, the following actions shall be taken before the Administrator will consider reissuing such certificate:

(1) If the Administrator determines that the proposed change or changes in engine design may have an effect on emission performance deterioration, he shall so notify the manufacturer within five (5) working days after receipt of the report in paragraph (h) of this section, whether subsequent testing under this subpart will be sufficient to evaluate the proposed change or changes or whether additional testing will be required.

(2) After implementing the change or changes intended to remedy the nonconformity, the manufacturer shall demonstrate that the engine configuration for which the certificate of conformity was revoked does in fact conform with these regulations by testing engines selected from normal production runs of that engine configuration in accordance with the conditions specified in the initial test order. This testing will be considered by the Administrator to satisfy the testing requirements of § 86.078-32 or § 86.079-33 if the Administrator had so notified the manufacturer. If the subsequent audit results in passing of the audit at the level of the standards, the Administrator will reissue or amend the certificate, as the case may be, to include that configuration: *Provided,* That the manufacturer has satisfied the testing requirements specified pursuant to paragraph (j)(2) of this section. If the subsequent audit is failed, the revocation shall remain in effect. Any design change approvals under this subpart shall be limited to the configuration affected by the test order.

(l) At any time subsequent to an initial suspension of a certificate of conformity for a test engine pursuant to paragraph (a) of this section, but not later than fifteen (15) days or such other period as may be allowed by the Administrator after notification of the Administrator's decision to suspend or revoke a certificate of conformity in whole or in part pursuant to paragraphs (b), (c), (d), (e) or (h) of this section, a manufacturer may request a hearing as to whether the tests have been properly conducted or any sampling methods have been properly applied.

(m) After the Administrator suspends or revokes a certificate of conformity pursuant to this section or notifies a manufacturer of his intent to suspend, revoke or void a certificate of conformity under paragraph § 86.084-30(e), and prior to the commencement of a hearing under § 86.1014-84, if the manufacturer demonstrates to the Administrator's satisfaction that the decision to suspend, revoke or void the certificate was based on erroneous information, the Administrator shall reinstate the certificate.

(n) To permit a manufacturer to avoid storing non-test engines when conducting an audit of a configuration subsequent to suspension or revocation of the certificate of conformity for that configuration resulting from failure of an SEA, it may request that the Administrator conditionally reinstate the certificate for that configuration. The Administrator may reinstate the certificate subject to the condition that the manufacturer consents to recall all engines of that configuration produced from the time the certificate is conditionally reinstated if the configuration fails the subsequent audit at the level of the standard and to

remedy any nonconformity at no expense to the owner.

§ 86.1013-84 [Reserved.]

§ 86.1014-84 Hearings on suspension, revocation and voiding of certificate of conformity.

(a) *Applicability.* The procedures prescribed by this section shall apply whenever a manufacturer requests a hearing pursuant to § 86.084-30(e)(6)(i), § 86.084-30(e)(7), or § 86.1012-84(1).

(b) *Definitions.* The following definitions shall be applicable to this section:

(1) "Hearing Clerk" shall mean the Hearing Clerk of the Environmental Protection Agency.

(2) "Manufacturer" refers to a manufacturer contesting a suspension or revocation order directed at the manufacturer.

(3) "Party" shall include the Agency and the manufacturer.

(4) "Presiding Officer" shall mean an Administrative Law Judge appointed pursuant to 5 U.S.C. 3105 (see also 5 CFR Part 930 as amended).

(5) "Judicial Officer" shall mean an officer or employee of the Agency appointed as a Judicial Officer by the Administrator pursuant to this section who shall meet the qualifications and perform functions as follows:

(i) Officer—there may be designated for the purposes of this section one or more Judicial Officers. As work requires, there may be a Judicial Officer designated to act for the purposes of a particular case.

(ii) Qualifications—a Judicial Officer may be a permanent or temporary employee of the Agency who performs other duties for the Agency. Such Judicial Officer shall not be employed by the Office of Enforcement or have any connection with the preparation or presentation of evidence for a hearing held pursuant to this subpart. The Judicial Officer shall be a graduate of an accredited law school and a member in good standing of a recognized Bar Association of any state or the District of Columbia.

(iii) Functions—the Administrator may consult with Judicial Officer or delegate all or part of his authority to act in a given case under this section to a Judicial Officer: *Provided,* That this delegation shall not preclude the Judicial Officer from referring any motion or case to the Administrator when the Judicial Officer determines such referral to be appropriate.

(c) *Request for public hearing.*

(1) If the manufacturer disagrees with the Administrator's decision to suspend, revoke or void a certificate or disputes the basis for an automatic suspension pursuant to § 86.1012-84(a), he may request a public hearing as described in this section. Requests for such a hearing shall be filed with the Administrator not later than 15 days after the Administrator's notification of his decision to suspend or revoke unless otherwise specified by the Administrator. Two copies of such request shall simultaneously be served upon the Director of the Mobile Source Enforcement Division and two copies filed with the Hearing Clerk. Failure of the manufacturer to request a hearing within the time provided shall constitute a waiver of his right to such a hearing. Subsequent to the expiration of the period for requesting a hearing as a right, the Administrator may, in his discretion and for good cause shown, grant the manufacturer a hearing to contest the suspension or revocation.

(2) The request for a public hearing shall contain:

(i) A statement as to which engine configuration is to be the subject of the hearing;

(ii) A concise statement of the issues to be raised by the manufacturer at the hearing: *Provided, however,* That in the case of the hearing requested under § 86.1012-84(1), the hearing shall be restricted to the following issues:

(A) Whether tests have been properly conducted, specifically, whether the tests were conducted in accordance with applicable regulations under this part and whether test equipment was properly calibrated and functioning; and

(B) Whether sampling plans have been properly applied, specifically, whether sampling procedures specified in Appendix X were followed and whether there exists a basis for distinguishing engines produced at plants other than the one from which engines were selected for testing which would invalidate the Administrator's decision under § 86.1012-84(e).

(iii) A statement specifying reasons the manufacturer believes he will prevail on the merits of each of the issues so raised; and

(iv) A summary of the evidence which supports the manufacturer's position on each of the issues so raised.

(3) A copy of all requests for public hearings shall be kept on file in the Office of the Hearing Clerk and shall be made available to the public during Agency business hours.

(d) *Summary decision.*

(1) In the case of a hearing requested under § 86.1012-83(1), when it clearly appears from the data and other information contained in the request for a hearing that there is no genuine and substantial question of fact with respect to the issues specified in § 86.1014-84(c)(2)(ii), the Administrator will enter an order denying the request for a hearing and reaffirming the original decision to suspend or revoke a certificate of conformity, if such decision has been made pursuant to § 86.1012-84(g) at any time prior to the decision to deny the request for a hearing.

(2) In the case of a hearing requested under § 86.084-30(e)(6)(i), to challenge a proposed suspension of a certificate of conformity for the reasons specified in § 86.084-30 (e)(1)(i) or (e)(1)(ii), when it clearly appears from the data and other information contained in the request for a hearing that there is no genuine and substantial question of fact with respect to the issue of whether the refusal to comply with the provisions of a test order or any other requirement of § 86.1003-84 was caused by conditions and circumstances outside the control of the manufacturer, the Administrator will enter an order denying the request for a hearing and suspending the certificate of conformity.

(3) Any order issued under paragraphs (d)(1) or (d)(2) of this section shall have the force and effect of a final decision of the Administrator, as issued pursuant to paragraph (w)(4) of this section.

(4) If the Administrator determines that a genuine and substantial question of fact does exist with respect to any of the issues referred to in paragraphs (d)(1) and (d)(2) of this section, he shall grant the request for a hearing and publish a notice of public hearing in accordance with paragraph (h) of this section.

(e) *Filing and service.*

(1) An original and two copies of all documents or papers required or permitted to be filed pursuant to this section shall be filed with the Hearing Clerk. Filing shall be deemed timely if mailed, as determined by the postmark, to the Hearing Clerk within the time allowed by this section. If filing is to be accomplished by mailing, the documents shall be sent to the address set forth in the notice of public hearing as described in paragraph (h) of this section.

(2) To the maximum extent possible, testimony shall be presented in written form. Copies of written testimony shall be served upon all parties as soon as practicable prior to the start of the hearing. A certificate of service shall be provided on or accompany each document or paper filed with the Hearing Clerk. Documents to be served upon the Director of the Mobile Source Enforcement Division shall be sent by registered mail to: Director, Manufacturers Operations Division, U.S. Environmental Protection Agency, En-

340, 401 M Street SW., Washington, D.C. 20460.

Service by registered mail is complete upon mailing.

(f) *Time.*

(1) In computing any period of time prescribed or allowed by this section, except as otherwise provided, the day of the act or event from which the designated period of time begins to run shall not be included. Saturdays, Sundays, and Federal legal holidays shall be included in computing any such period allowed for the filing of any document or paper, except that when such period expires on a Saturday, Sunday, or Federal legal holiday, such period shall be extended to include the next following business day.

(2) A prescribed period of time within which a party is required or permitted to do an act shall be computed from the time of service, except that when service is accomplished by mail, three days shall be added to the prescribed period.

(g) *Consolidation.* The Administrator or the Presiding Officer in his discretion may consolidate two or more proceedings to be held under this section for the purpose of resolving one or more issues whenever it appears that such consolidation will expedite or simplify consideration of such issues. Consolidation shall not affect the right of any party to raise issues that could have been raised if consolidation had not occured.

(h) *Notice of public hearings.* Notice of a public hearing under this section shall be given by publication in the Federal Register and by such other means as the Administrator finds appropriate to provide notice to the public. To the extent possible hearings under this section shall be scheduled to commence within 14 days of receipt of the application in paragraph (c) of this section.

(i) *Amicus curiae.* Persons not parties to the proceeding wishing to file briefs may do so by leave of the Presiding Officer granted on motion. A motion for leave shall identify the interest of the applicant and shall state the reasons why the proposed amicus brief is desirable.

(j) *Presiding Officer.* The Presiding Officer shall have the duty to conduct a fair and impartial hearing in accordance with 5 U.S.C. sections 554, 556 and 557 and to take all necessary action to avoid delay in the disposition of the proceedings and to maintain order. He shall have all power consistent with Agency rule and with the Administrative Procedure Act necessary to this end, including the following:

(1) To administer oaths and affirmations;

(2) To rule upon offers of proof and exclude irrelevant or repetitious material;

(3) To regulate the course of the hearings and the conduct of the parties and their counsel therein;

(4) To hold conferences for simplification of the issues or any other proper purpose;

(5) To consider and rule upon all procedural and other motions appropriate in such proceedings;

(6) To require the submission of direct testimony in written form with or without affidavit whenever, in the opinion of the Presiding Officer, oral testimony is not necessary for full and true disclosure of the facts;

(7) To enforce agreements and orders requiring access as authorized by law;

(8) To require the filing of briefs on any matter on which he is required to rule;

(9) To require any party or any witness, during the course of the hearing, to state his position on any issue;

(10) To take or cause depositions to be taken whenever the ends of justice would be served thereby;

(11) To make decisions or recommend decisions to resolve the disputed issues on the record of the hearing;

(12) To issue, upon good cause shown, protective orders as described in paragraph (n) of this section.

(k) *Conferences.* (1) At the descretion of the Presiding Officer, conferences may be held prior to or during any hearing. The Presiding Officer shall direct the Hearing Clerk to notify all parties of the time and location of any such conference. At the descretion of the Presiding Officer, persons other than parties may attend. At a conference the Presiding Officer may:

(i) Obtain stipulations and admissions, receive requests and order depositions to be taken, identify disputed issues of fact and law, and require or allow the submission of written testimony from any witness or party;

(ii) Set a hearing schedule for as many of the following as are deemed necessary by the Presiding Officer;

(A) Oral and written statements;

(B) Submission of written direct testimony as required or authorized by the Presiding Officer;

(C) Oral direct and cross-examination of a witness where necessary as prescribed in paragraph (p) of this section; and

(D) Oral argument, if appropriate.

(iii) Identify matters of which official notice may be taken;

(iv) Consider limitation of the number of expert and other witnesses;

(v) Consider the procedure to be followed at the hearing; and

(vi) Consider any other matter that may expedite the hearing or aid in the disposition of the issue.

(2) The results of any conference including all stipulations shall, if not transcribed, be summarized in writing by the Presiding Officer and made part of the record.

(l) *Primary discovery (exchange of witness lists and documents).* (1) At a prehearing conference or within some reasonable time set by the Presiding Officer prior to the hearing, each party shall make available to the other parties the names of the expert and other witnesses the party expects to call, together with a brief summary of their expected testimony and a list of all documents and exhibits which the party expects to introduce into evidence. Thereafter, witnesses, documents, or exhibits may be added and summaries of expected testimony amended upon motion by a party.

(2) The Presiding Officer, may, upon motion by a party or other person, and for good cause shown, by order

(i) restrict or defer disclosure by a party of the name of a witness or a narrative summary of the expected testimony of a witness, and

(ii) prescribe other appropriate measures to protect a witness. Any party affected by any such action shall have an adequate opportunity, once he learns the name of a witness and obtains the narrative summary of his expected testimony, to prepare for the presentation of his case.

(m) *Other discovery.* (1) Except as so provided by paragraph (l) of this section, further discovery, under this paragraph, shall be permitted only upon determination by the Presiding Officer:

(i) That such discovery will not in any way unreasonably delay the proceeding;

(ii) That the information to be obtained is not obtainable voluntarily; and

(iii) That such information has significant probative value. The Presiding Officer shall be guided by the procedures set forth in the Federal Rules of Civil Procedure, where practicable, and the precedents thereunder, except that no discovery shall be undertaken except upon order of the Presiding Officer or upon agreement of the parties.

(2) The Presiding Officer shall order depositions upon oral questions only upon a showing of good cause and upon a finding that:

(i) The information sought cannot be obtained by alternative methods; or

(ii) There is a substantial reason to believe that relevant and probative evidence may otherwise not be

preserved for presentation by a witness at the hearing.

(3) Any party to the proceeding desiring an order of discovery shall make a motion or motions therefor. Such a motion shall set forth:

(i) The circumstances warranting the taking of the discovery;

(ii) The nature of the information expected to be discovered; and

(iii) The proposed time and place where it will be taken. If the Presiding Officer determines the motion should be granted, he shall issue an order for the taking of such discovery together with the conditions and terms thereof.

(4) Failure to comply with an order issued pursuant to this paragraph may lead to the inference that the information to be discovered would be adverse to the person or party from whom the information was sought.

(n) *Protective orders, in camera proceedings.* (1) Upon motion by a part or by the person from whom discovery is sought, and upon a showing by the movant that the disclosure of the information to be discovered, or a particular part thereof (other than emission data), would result in methods or processes entitled to protection as trade secrets of such person being divulged, the Presiding Officer may enter a protective order with respect to such material. Any protective order shall contain such terms governing the treatment of the information as may be appropriate under the circumstances to prevent disclosure outside the hearing: *Provided,* That the order shall state that the material shall be filed separately from other evidence and exhibits in the hearing. Disclosure shall be limited to parties to the hearing, their counsel and relevant technical consultants, and authorized representatives of the United States concerned with carrying out the Act. Except in the case of the government, disclosure may be limited to counsel for parties who shall not disclose such information to the parties themselves. Except in the case of the government, disclosure to a party or his counsel shall be conditioned on execution of a sworn statement that no disclosure of the information will be made to persons not entitled to receive it under the terms of the protective order. (No such provision is necessary where government employees are concerned because disclosure by them is subject to the terms of 18 U.S.C. 1905.)

(2)(i) A party or person seeking a protective order may be permitted to make all or part of the required showing in camera. A record shall be made of such in camera proceedings. If the Presiding Officer enters a protective order following a showing in camera, the record of such showing shall be sealed and preserved and made available to the Agency or court in the event of appeal.

(ii) Attendance at any in camera proceeding may be limited to the Presiding Officer, the Agency, and the person or party seeking the protective order.

(3) Any party, subject to the terms and conditions of any protective order issues pursuant to paragraph (n)(1) of this section, desiring for the presentation of his case to make use of any in camera documents or testimony shall make application to the Presiding Officer by motion setting forth the justification therefor. The Presiding Officer, in granting any such motion, shall enter an order protecting the rights of the affected persons and parties and preventing unnecessary disclosure of such information, including the presentation of such information and oral testimony and cross-examination concerning it in executive session, as in his discretion is necessary and practicable.

(4) In the submittal of proposed findings, briefs, or other papers, counsel for all parties shall make a good faith attempt to refrain from disclosing the specific details of in camera documents and testimony. This shall not preclude references in such proposed findings, briefs, or other papers to such documents or testimony including generalized statements based on their contents. To the extent that counsel considers it necessary to include specific details in their presentation, such data shall be incorporated in separate proposed findings, briefs, or other papers marked "confidential", which shall become part of the in camera record.

(o) *Motions.* (1) All motions, except those made orally during the course of the hearing, shall be in writing and shall state with particularity the grounds therefor, shall set forth the relief or order sought, and shall be filed with the Hearing Clerk and served upon all parties.

(2) Within such time as may be fixed by the Administrator, the judicial officer, or the Presiding Officer, as appropriate, any party may serve and file an answer to the motion. The movant shall, if requested by the Administrator, the judicial officer, or the Presiding Officer, as appropriate, serve and file reply papers, within the time set by the request.

(3) The Presiding Officer shall rule upon all motions filed or made prior to the filing of his decision or accelerated decision, as appropriate. The Administrator or the judicial officer, as appropriate, shall rule upon all motions filed prior to the appointment of a Presiding Officer and all motions filed after the filing of the decision of the Presiding Officer or accelerated decision. Oral argument of motions will be permitted only if the Presiding Officer, the Administrator or the judicial officer, as appropriate, deems it necessary.

(p) *Evidence.* (1) The official transcripts and exhibits, together with all papers and requests filed in the proceeding, shall constitute the record. Immaterial or irrelevant parts of an admissible document shall be segregated and excluded so far as practicable. Documents or parts thereof subject to a protective order under paragraph (n) of this section shall be segregated. Evidence may be received at the hearing even though inadmissible under the rules of evidence applicable to judicial proceedings. The weight to be given evidence shall be determined by its reliability and probative value.

(2) The Presiding Officer shall allow the parties to examine and cross-examine a witness to the extent that such examination and cross-examination is necessary for a full and true disclosure of the facts.

(3) Rulings of the Presiding Officer on the admissibility of evidence, the propriety of examination and cross-examination and other procedural matters shall appear in the record.

(4) Parties shall automatically be presumed to have taken exception to an adverse ruling.

(q) *Record.* (1) Hearings shall be stenographically reported and transcribed and the original transcripts shall be part of the record and the sole official transcript. Copies of the record shall be filed with the Hearing Clerk and made available during Agency business hours for public inspection. Any person desiring a copy of the record of the hearing or any part thereof, except as provided in paragraph (n) of this section, shall be entitled to the same upon payment of the cost thereof.

(2) The official transcripts and exhibits, together with all papers and requests filed in the proceeding, shall constitute the record.

(r) *Proposed findings, conclusions.* (1) Within 4 days of the close of the reception of evidence, or within such longer time as may be fixed by the Presiding Officer, any party may submit for the consideration of the Presiding Officer proposed findings of fact, conclusions of law, and proposed order, together with reasons therefor and briefs in support thereof. Such proposals shall be in writing, shall be served upon all parties, and shall contain adequate

references to the record and authorities relied upon.

(2) The record shall show the Presiding Officer's ruling on the proposed findings and conclusions except when his order disposing of the proceeding otherwise informs the parties of the action taken by him thereon.

(s) *Decision of the Presiding Officer.* (1) Unless extended by the Administrator, the Presiding Officer shall issue and file with the Hearing Clerk his decision within 14 days (or within 7 days in the case of a hearing requested under § 86.1012–84(1)) after the period for filing proposed findings as provided for in paragraph (r) of this section has expired.

(2) The Presiding Officer's decision shall become the decision of the Administrator:

(i) when no notice of intention to appeal as described in paragraphs (t) and (u) of this section is filed, 10 days after issuance thereof, unless in the interim the Administrator shall have taken action to review or stay the effective date of the decision; or

(ii) when a notice of intention to appeal is filed but the appeal is not perfected as required by paragraph (t) or (u) of this section, 5 days after the period allowed for perfection of an appeal has expired unless within that 5 day period, the Administrator shall have taken action to review or stay the effective date of the decision.

(3) The Presiding Officer's decision shall include a statement of findings and conclusions, as well as the reasons or basis therefor, upon all the material issues of fact or law presented on the record and an appropriate rule or order. Such decision shall be supported by substantial evidence and based upon a consideration of the whole record.

(4) At any time prior to the issuance of his decision, the Presiding Officer may reopen the proceeding for the reception of further evidence. Except for the correction of clerical errors, the jurisdiction of the Presiding Officer is terminated upon the issuance of his decision.

(t) *Appeal from the decision of the Presiding Officer.* (1) Any party to a proceeding may appeal the Presiding Officer's decision to the Administrator: *Provided,* That within 10 days after issuance of the Presiding Officer's decision such party files a notice of intention to appeal and an appeal brief within 20 days of such decision.

(2) When an appeal is taken from the decision of the Presiding Officer, any party may file a brief with respect to such appeal. The brief shall be filed within 15 days of the date of the filing of the appellant's brief.

(3) Any brief filed pursuant to this paragraph shall contain in the order indicated, the following:

(i) A subject index of the matter in the brief, with page references, and a table of cases (alphabetically arranged), textbooks, statutes, and other material cited, with page references thereto;

(ii) A specification of the issues intended to be urged; provided, however, that in the case of a hearing requested under § 86.1012–84(1), the brief shall be restricted to the issues specified in paragraph (c)(2)(ii) of this section;

(iii) The argument presenting clearly the points of fact and law relied upon in support of the position taken on each issue, with specific page references to the record and the legal or other material relied upon; and

(iv) A proposed order for the Administrator's consideration if different from the order contained in the Presiding Officer's decision.

(4) No brief in excess of 40 pages shall be filed without leave of the Administrator.

(5) Oral argument will be allowed only in the discretion of the Administrator.

(u) *Summary appeal.* (1) In the case of a hearing requested under § 86.1012–84(1), any appeal taken from the decision of the Presiding Officer shall be conducted under this paragraph.

(2) Any party to the proceeding may appeal the Presiding Officer's decision to the Administrator by filing a notice of appeal within 10 days.

(3) The notice of appeal shall be in the form of a brief, and shall conform to the requirements of paragraph (t)(3) of this section.

(4) Within 10 days after a notice of appeal from the decision of the Presiding Officer is filed under this paragraph, any party may file a brief with respect to such appeal.

(5) No brief in excess of 15 pages shall be filed without leave of the Administrator.

(v) *Review of the Presiding Officer's decision in the absence of appeal.* (1) If, after the expiration of the period for taking appeal as provided for by paragraphs (t) or (u) of this section, no notice of intention to appeal the decision of the Presiding Officer has been filed, or if filed, not perfected, the Hearing Clerk shall so notify the Administrator.

(2) The Administrator, upon receipt of notice from the Hearing Clerk that no notice of intention to appeal has been filed, or if filed, not perfected pursuant to paragraphs (t) or (u) of this section, may, on his own motion, within the time limits specified in paragraph (s)(2) of this section, review the decision of the Presiding Officer. Notice of the intention of the Administrator to review the decision of the Presiding Officer shall be given to all parties and shall set forth the scope of such review and the issues which shall be considered and shall make provision for filing of briefs.

(w) *Decision of appeal or review.* (1) Upon appeal from or review of the Presiding Officer's decision, the Administrator shall consider such parts of the record as are cited or as maybe necessary to resolve the issues presented and in addition shall, to the extent necessary or desirable, exercise all the powers which he could have exercised if he had presided at the hearing.

(2) In rendering his decision, the Administrator shall adopt, modify or set aside the findings, conclusions, and order contained in the decision of the Presiding Officer and shall set forth in his decision a statement of the reasons or basis for his action.

(3) In those cases where the Administrator believes that he should have further information or additional views of the parties as to the form and content of the rule or order to be issued, the Administrator, in his discretion, may withhold final action pending the receipt of such additional information or views, or may remand the case to the Presiding Officer.

(4) Any decision rendered under this paragraph which completes disposition of a case shall be a final decision of the Administrator.

(x) *Reconsideration.* (1) Within twenty (20) days after issuance of the Administrator's decision, any party may file with the Administrator a petition for reconsideration of such decision, setting forth the relief desired and the grounds in support thereof. Any petition filed under this subsection must be confined to new questions raised by the decision or final order and upon which the petitioner had no opportunity to argue before the Presiding Officer or the Administrator. *Provided, however,* That in the case of a hearing requested under § 86.1012–84(1) such new questions shall be limited to the issues specified in paragraph (c)(2)(ii) of this section.

(2) Any party desiring to oppose such a petition shall file an answer thereto within ten (10) days after the filing of the petition. The filing of a petition for reconsideration shall not operate to stay the effective date of the decision or order or to toll the running of any statutory time period affecting such decision or order unless specifically so ordered by the Administrator.

(y) *Accelerated decision, dismissal.* (1) The Presiding Officer, upon motion of any party or sua sponte, may at any time render an accelerated decision in favor of the Agency or the manufacturer as to all or any part of the proceeding, without further hearing or upon such limited additional evidence such as affidavits as he may require, or dismiss any party with prejudice, for any of the following reasons:

(i) Failure to state a claim upon which relief can be granted, or direct or collateral estoppel;

(ii) The lack of any genuine issue of material fact, causing a party to be entitled to judgment as a matter of law; or

(iii) Such other and further reasons as are just, including specifically failure to obey a procedural order of the Presiding Officer.

(2) If under this paragraph an accelerated decision is issued as to all the issues and claims joined in the proceeding, the decision shall be treated for the purposes of these procedures as the decision of the Presiding Officer as provided in paragraph (s) of this section.

(3) If under this paragraph, judgment is rendered on less than all issues or claims in the proceeding, the Presiding Officer shall determine what material facts exist without substantial controversy and what material facts are actually and in good faith controverted. He shall thereupon issue an order specifying the facts which appear without substantial controversy, and the issues and claims upon which the hearing will proceed.

(z) *Conclusion of hearing.* (1) If, after the expiration of the period for taking an appeal as provided for by paragraphs (t) and (u) of this section, no appeal has been taken from the Presiding Officer's decision, and after the expiration of the period for review by the Administrator on his own motion as provided for by paragraph (v) of this section, the Administrator does not move to review such decision, the hearing will be deemed to have ended at the expiration of all periods allowed for such appeal and review.

(2) If an appeal of the Presiding Officer's decision is taken pursuant to paragraph (t) and (u) of this section, or if, in the absence of such appeal the Administrator moves to review the decision of the Presiding Officer pursuant to paragraph (v) of this section, the hearing will be deemed to have ended upon the rendering of a final decision by the Administrator.

(aa) *Judicial review.* (1) The Administrator hereby designates the General Counsel, Environmental Protection Agency as the officer upon whom copy of any petition for judicial review shall be served. Such officer shall be responsible for filing in the court the record on which the order of the Administrator is based.

(2) Before forwarding the record to the court, the Agency shall advise the petitioner of costs of preparing it and as soon as payment to cover fees is made, shall forward the record to the court.

23. Part 86 is amended by adding Appendix X as follows:

## Appendix X—Sampling Plans for Selective Enforcement Auditing of Heavy-Duty Engines

**Table 1—*Sampling Plan Code Letter***

| Annual sales | Code letter |
|---|---|
| 50–99 | A |
| 100–199 | B |
| 200–399 | C |
| 400 or greater | D |

**Table 2—*Sample Plan for Code Letter "A"***

[Sample inspection criteria]

| Stage | Pass No. | Fail No. |
|---|---|---|
| 1 | (1) | (2) |
| 2 | (1) | (2) |
| 3 | (1) | 3 |
| 4 | (1) | 3 |
| 5 | (1) | 3 |
| 6 | (1) | 3 |
| 7 | 0 | 3 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 1 | 4 |
| 12 | 1 | 4 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 1 | 5 |
| 16 | 2 | 5 |
| 17 | 2 | 5 |
| 18 | 2 | 5 |
| 19 | 2 | 6 |
| 20 | 2 | 6 |
| 21 | 3 | 6 |
| 22 | 3 | 6 |
| 23 | 3 | 6 |
| 24 | 3 | 6 |
| 25 | 4 | 6 |
| 26 | 4 | 7 |
| 27 | 4 | 7 |
| 28 | 4 | 7 |
| 29 | 4 | 7 |
| 30 | 6 | 7 |

(1) Test sample passing not permitted at this stage.

(2) Test sample failure not permitted at this stage.

**Table 3—*Sample Plan for Code Letter "B"***

[Sample inspection criteria]

| Stage | Pass No. | Fail No. |
|---|---|---|
| 1 | (1) | (2) |
| 2 | (1) | (2) |
| 3 | (1) | 3 |
| 4 | (1) | 3 |
| 5 | (1) | 3 |
| 6 | (1) | 3 |
| 7 | 0 | 4 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 0 | 4 |
| 12 | 1 | 5 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |

**Table 3—*Sample Plan for Code Letter "B"*—Continued**

[Sample inspection criteria]

| Stage | Pass No. | Fail No. |
|---|---|---|
| 15 | 1 | 5 |
| 16 | 1 | 5 |
| 17 | 2 | 6 |
| 18 | 2 | 6 |
| 19 | 2 | 6 |
| 20 | 2 | 6 |
| 21 | 3 | 6 |
| 22 | 3 | 7 |
| 23 | 3 | 7 |
| 24 | 3 | 7 |
| 25 | 3 | 7 |
| 26 | 4 | 7 |
| 27 | 4 | 7 |
| 28 | 4 | 8 |
| 29 | 4 | 8 |
| 30 | 4 | 8 |
| 31 | 5 | 8 |
| 32 | 5 | 8 |
| 33 | 5 | 9 |
| 34 | 5 | 9 |
| 35 | 6 | 9 |
| 36 | 6 | 9 |
| 37 | 6 | 9 |
| 38 | 6 | 9 |
| 39 | 6 | 9 |
| 40 | 8 | 9 |

(1) Test sample passing not permitted at this stage.

(2) Test sample failure not permitted at this stage.

**Table 4—*Sample Plan for Code Letter "C"***

[Sample inspection criteria]

| Stage | Pass No. | Fail No. |
|---|---|---|
| 1 | (1) | (2) |
| 2 | (1) | (2) |
| 3 | (1) | 3 |
| 4 | (1) | 3 |
| 5 | (1) | 3 |
| 6 | (1) | 4 |
| 7 | 0 | 4 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 0 | 5 |
| 12 | 1 | 5 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 1 | 5 |
| 16 | 1 | 6 |
| 17 | 2 | 6 |
| 18 | 2 | 6 |
| 19 | 2 | 6 |
| 20 | 2 | 6 |
| 21 | 3 | 7 |
| 22 | 3 | 7 |
| 23 | 3 | 7 |
| 24 | 3 | 7 |
| 25 | 3 | 7 |
| 26 | 4 | 8 |
| 27 | 4 | 8 |
| 28 | 4 | 8 |
| 29 | 4 | 9 |
| 30 | 4 | 9 |
| 31 | 5 | 8 |
| 32 | 5 | 9 |
| 33 | 5 | 9 |
| 34 | 5 | 9 |
| 35 | 5 | 9 |
| 36 | 6 | 9 |
| 37 | 6 | 10 |
| 38 | 6 | 10 |
| 39 | 6 | 10 |
| 40 | 6 | 10 |
| 41 | 7 | 10 |
| 42 | 7 | 11 |
| 43 | 7 | 11 |
| 44 | 7 | 11 |
| 45 | 8 | 11 |
| 46 | 8 | 11 |
| 47 | 8 | 11 |
| 48 | 8 | 11 |
| 49 | 8 | 11 |
| 50 | 10 | 11 |

(1) Test sample passing not permitted at this stage.

(2) Test sample failure not permitted at this stage.

Table 5—*Sample Plan for Code Letter "D"*

[Sample inspection criteria]

| Stage | Pass No. | Fail No. |
|---|---|---|
| 1 | (1) | (2) |
| 2 | (1) | (2) |
| 3 | (1) | 3 |
| 4 | (1) | 3 |
| 5 | (1) | 3 |
| 6 | (1) | 4 |
| 7 | 0 | 4 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 0 | 5 |
| 12 | 1 | 5 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 1 | 5 |
| 16 | 1 | 6 |
| 17 | 2 | 6 |
| 18 | 2 | 6 |
| 19 | 2 | 6 |
| 20 | 2 | 6 |
| 21 | 2 | 7 |
| 22 | 3 | 7 |
| 23 | 3 | 7 |
| 24 | 3 | 7 |
| 25 | 3 | 7 |
| 26 | 3 | 8 |
| 27 | 4 | 8 |
| 28 | 4 | 8 |
| 29 | 4 | 8 |
| 30 | 4 | 8 |
| 31 | 4 | 9 |
| 32 | 5 | 9 |
| 33 | 5 | 9 |
| 34 | 5 | 9 |
| 35 | 5 | 9 |
| 36 | 6 | 10 |
| 37 | 6 | 10 |
| 38 | 6 | 10 |
| 39 | 6 | 10 |
| 40 | 6 | 11 |
| 41 | 7 | 11 |
| 42 | 7 | 11 |
| 43 | 7 | 11 |
| 44 | 7 | 11 |
| 45 | 7 | 12 |
| 46 | 8 | 12 |
| 47 | 8 | 12 |
| 48 | 8 | 12 |
| 49 | 8 | 12 |
| 50 | 8 | 13 |
| 51 | 9 | 13 |
| 52 | 9 | 13 |
| 53 | 9 | 13 |
| 54 | 9 | 13 |
| 55 | 9 | 13 |
| 56 | 10 | 13 |
| 57 | 10 | 13 |
| 58 | 10 | 13 |
| 59 | 10 | 13 |
| 60 | 12 | 13 |

(1) Test sample passing not permitted at this stage.

(2) Test sample failure not permitted at this stage.

24. A new Subpart N is added to Part 86 and reads as follows:

## Subpart N—Emission Regulations For New Gasoline-Fueled and Diesel Heavy-Duty Engines; Gaseous Exhaust Test Procedures

Sec.


86.1301–84 Scope; applicability.
86.1302–84 Definitions.
86.1303–84 Abbreviations.
86.1304–84 Section numbering; construction.
86.1305–84 Introduction; structure of subpart.
86.1306–84 Equipment required and specifications; overview.
86.1307–84 [Reserved]
86.1308–84 Dynamometer and engine equipment specifications.
86.1309–84 Exhaust gas sampling system; gasoline-fueled engines.
86.1310–84 Exhaust gas sampling and analytical system; diesel engines.
86.1311–84 Exhaust gas analytical system; CVS bag sample.
86.1312–84 [Reserved]
86.1313–84 Fuel specifications.
86.1314–84 Analytical gases.
86.1315–84 [Reserved]
86.1316–84 Calibrations; frequency and overview.
86.1317–84 [Reserved]
86.1318–84 Engine dynamometer calibrations.
86.1319–84 CVS calibration.
86.1320–84 [Reserved]
86.1321–84 Hydrocarbon analyzer calibration.
86.1322–84 Carbon monoxide analyzer calibration.
86.1323–84 Oxides of nitrogen analyzer calibration.
86.1324–84 Carbon dioxide analyzer calibration.
86.1325–84 [Reserved]
86.1326–84 Calibration of other equipment.
86.1327–84 Engine dynamometer test procedures; overview.
86.1328–84 [Reserved]
86.1329–84 [Reserved]
86.1330–84 Test sequence; general requirements.
86.1331–84 [Reserved]
86.1332–84 Engine mapping procedures.
86.1333–84 Transient test cycle generation.
86.1334–84 Pre-test engine and dynamometer preparation.
86.1335–84 Optional forced cool-down procedure.
86.1336–84 Engine starting and restarting.
86.1337–84 Engine dynamometer test run.
86.1338–84 Emission measurement accuracy.
86.1339–84 [Reserved]
86.1340–84 Exhaust sample analysis.
86.1341–84 Test cycle validation criteria.
86.1342–84 Calculations; exhaust emissions.
86.1343–84 [Reserved]
86.1344–84 Information required.


Authority: Secs. 202, 206, 207, 208, 301(a) of the Clean Air Act; as amended, 42 U.S.C. 7521, 7524, 7541, 7542 and 7601.

## Subpart N—Emission Regulations for New Gasoline-Fueled and Diesel Heavy-Duty Engines; Gaseous Exhaust Test Procedures

### § 86.1301–84 Scope; applicability.

This subpart contains gaseous emission test procedures for gasoline-fueled and diesel heavy-duty engines. It applies to 1984 and later model years.

### § 86.1302–82 Definitions.

The definitions in § 86.084–2 apply to this subpart.

### § 86.1303–84 Abbreviations.

The abbreviations in § 86.084–3 apply to this subpart.

### § 86.1304–84 Section numbering; construction.

(a) The model year of initial applicability is indicated by the section number. The two digits following the hyphen designate the first model year for which a section is effective. A section remains effective until superseded.

*Example:* Section § 86.1311–84 applies to the 1984 and subsequent model years until superseded. If a section § 86.1311–88 is promulgated it would take effect beginning with the 1988 model year; § 86.1311–84 would apply to model years 1984 through 1987.

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model year.

(c) Unless indicated, all provisions in this subpart apply to both gasoline-fueled and diesel heavy-duty engines.

### § 86.1305–84 Introduction; structure of subpart.

(a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emission tests on gasoline-fueled and diesel heavy-duty engines. Subpart A sets forth the testing requirements and test intervals necessary to comply with EPA certification procedures.

(b) Four topics are addressed in this subpart. Sections 86.1306–84 through 86.1315–84 set forth specifications and equipment requirements; §§ 86.1316–84 through 86.1326–84 discuss calibration methods and frequency; test procedures are listed in §§ 86.1327–84 through 86.1341–84; calculation formulas are found in § 86.1342–84; data requirements are found in § 86.1344–84.

### § 86.1306–84 Equipment required and specifications; overview.

(a) This subpart contains procedures for exhaust emissions tests on diesel or gasoline-fueled heavy-duty engines. Equipment required and specifications are as follows:

(1) *Exhaust emission tests.* All engines subject to this subpart are tested for exhaust emissions. Diesel and gasoline-fueled engines are tested identically with the exception of hydrocarbon measurements; diesel engines require a heated hydrocarbon detector, § 86.1310–84. Necessary equipment and specifications appear in §§ 86.1308–84 through 86.1311–84.

(2) *Fuel, analytical gas, and engine cycle specifications.* Fuel specifications for exhaust emission testing are specified in § 86.1313–84. Analytical gases are specified in § 86.1314–84. The EPA heavy-duty transient engines cycles for use in exhaust testing are described

in § 86.1333–84 and specified in Appendix I.

**§ 86.1307–84 [Reserved]**

**§ 86.1308–84 Dynamometer and engine equipment specifications.**

(a) *Engine dynamometer.* The engine dynamometer system must be capable of controlling engine torque and rpm simultaneously over transient cycles. The transient torque and rpm schedules described in § 86.1333–84 and specified Appendix I (f and g) must be followed within the accuracy requirements specified in § 86.1341–84. In addition, to these general requirements, the dynamometer read out and read out signals for speed and torque shall meet the following accuracy specifications:

(1) Engine speed shall be accurate to within 2 percent of point at all speeds.

(2) Engine torque at the flywheel shall be accruate to within 3 percent of point at all torque settings above 10 percent of full-scale of the torque measuring device. Below 10 percent of full-scale, the torque measuring device shall have an accuracy of:

(i) ±2.5 ft.-lbs., if the full scale value is 550 ft.-lbs. or less.

(ii) ±5 ft.-lbs., if the full scale value is 1050 ft.-lbs. or less.

(iii) ±10 ft.-lbs., if the full scale value is greater than 1050 ft.-lbs.

(3) *Option:* Internal dynamometer signals (i.e., armature current, etc.) may be used for torque measurement provided that it can be shown that the true engine flywheel torque during the test cycle conforms to the test cycle values as specified in § 86.1333–84, and if the technique is approved in advance by the Administrator. The minimum requirement for the Administrator's approval would include compensation for increased or decreased flywheel torque due to the armature inertia during accelerations and decelerations in the test cycle. Engineering data and comparison test results may be required.

(b) *Cycle verification equipment.* In order to verify that the test engine has followed the test cycle correctly, the dynamometer read out signals for speed and torque must be collected in a manner that allows a statistical correlation between the actual engine performance and the test cycle (See § 86.1341–84). Normally this collection process would involve conversion of analog dynamometer signals into digital values for storage in a computer. The conversion of dynamometer read out values into values (computer or other) that are used to evaluate the validity of engine performance in relation to the test cycle shall be performed in a manner such that:

(1) Speed values used for cycle evaluation are accurate to within 2 percent of the dynamometer speed read out value.

(2) Engine flywheel torque values used for cycle evaluation are accurate to within 3 percent of the dynamometer torque read out value.

(c) *Option:* For some systems it may be more convenient to combine the tolerances in paragraphs (a) and (b) of this section. This is permitted if the root mean square method (RMS) is used. The RMS values would then refer to accuracy in relationship to true value.

(1) Speed values used for cycle evaluation shall be accurate to within 2.8 percent of true value.

(2) Engine flywheel torque value used for cycle evaluation shall be accurate to within 4.2 percent of true value.

(d) *Speed calibration equipment.* A 60-tooth (or greater) wheel in combination with a common mode rejection frequency counter is considered an absolute standard for engine or dynamometer speed.

(e) *Torque calibration equipment.* Two techniques are allowed for torque calibration. Alternate techniques may be used if shown to be equivalent, and if prior approval is obtained from the Administrator.

(1) The lever-arm dead-weight technique involves the placement of known weights a known distance from the center of rotation of the torque measuring device. The equipment required are:

(i) *Calibration weights.* A minimum of 6 calibration weights for each range of torque measuring device used are required. The weights must be approximately equally spaced and each must be accurate to 0.5 percent of National Bureau of Standards weights. Laboratories located in foreign countries may certify calibration weights to local government bureau standards. Certification of weight accuracy by state government Bureau of Weights and Measures is acceptable. Effects of changes in gravitational constant at the test site may be accounted for if desired.

(ii) A lever arm with a minimum length of 24 inches. The distance from the center of the engine torque measurement device to the point of weight application shall be accurate to within 0.010 inches. The arm must be balanced or the hanging torque of the arm must be known within ±0.1 ft.-lbs.

(2) The transfer technique involves the use of a master load cell with a method of loading (usually hydraulic) the torque measuring device, or master unit that applies a known force to the torque measuring device based on piston area and pressure. The equipment required are:

(i) A master load cell or force application unit that must be calibrated at each test weight specified in paragraph (e)(1)(i) of this section with known weights traceable to within 0.1 percent of NBS weights. The provision on traceability in paragraph (e)(1)(i) apply to this section. The overall accuracy of the calibration curve of torque applied to the engine torque sensor as determined by the master units shall be within 0.5 percent of true value. Below 10 percent of full scale of the master unit the calibration curve of torque applied to the engine torque sensor shall be accurate to:

(A) ±0.5 ft.-lbs. of true value if full scale value is 550 ft.-lbs. or less.

(B) ±1.0 ft.-lbs. of true value if full scale value is 1050 ft.-lbs. or less.

(C) ±2.0 ft.-lbs. of true value if full scale value is greater than 1050 ft.-lbs.

(ii) A lever arm with a minimum length of 24 inches. The distance from the center of the engine torque measuring device to the point of force measurement or application shall be accurate to within 0.010 inches. The arm must be balanced or the hanging torque of the arm must be known within ±0.1 ft.-lbs.

(iii) Transfer of calibration or span from a dynomometer "case" torque value to the engine flywheel torque measuring device is permitted only under static or steady state conditions.

(3) Other techniques may be used if shown to be equivalent and if approved by the Administrator.

**§ 86.1309–84 Exhaust gas sampling system; gasoline-fueled engines.**

(a)(1) *General.* The exhaust gas sampling system is designed to measure the true mass emissions of engine exhaust. In the CVS concept of measuring mass emissions, two conditions must be satisfied: the total volume of the mixture of exhaust and dilution air must be measured, and a continuously proportioned sample of volume must be collected for analysis. Mass emissions are determined from the sample concentration and total flow over the test period. The sampling and continuous analysis system specified in § 86.1310–84 for diesel engines may be used for testing gasoline-fueled engines if the systems meet all of the requirements for such systems as specified in this Subpart.

(2) *Positive displacement pump.* The positive displacement pump—constant volume sampler (PDP–CVS), Figure N83–1, satisfies the first condition by metering at a constant temperature and pressure through the pump. The total

volume is measured by counting the revolutions made by the calibrated positive displacement pump. The proportional sample is achieved by sampling at a constant flow rate.

(3) *Critical flow venturi.* The operation of the critical flow venturi-constant volume sampler (CFV–CVS), Figure N84–2, is based upon the principles of fluid dynamics associated with critical flow. The CVF system is commonly called a constant volume system (CVS) even though the flow varies. It would be more proper to call the critical flow venturi (CFV) system a constant proportion sampling system since proportional sampling throughout temperature excursions is maintained by use of a small CFV in the sample line. The variable mixture flow rate is maintained at sonic velocity, which is inversely proportional to the square root of the gas temperature, and is computed continuously. Since the pressure and temperature are the same at both venturi inlets, the sample volume is proportional to the total volume.

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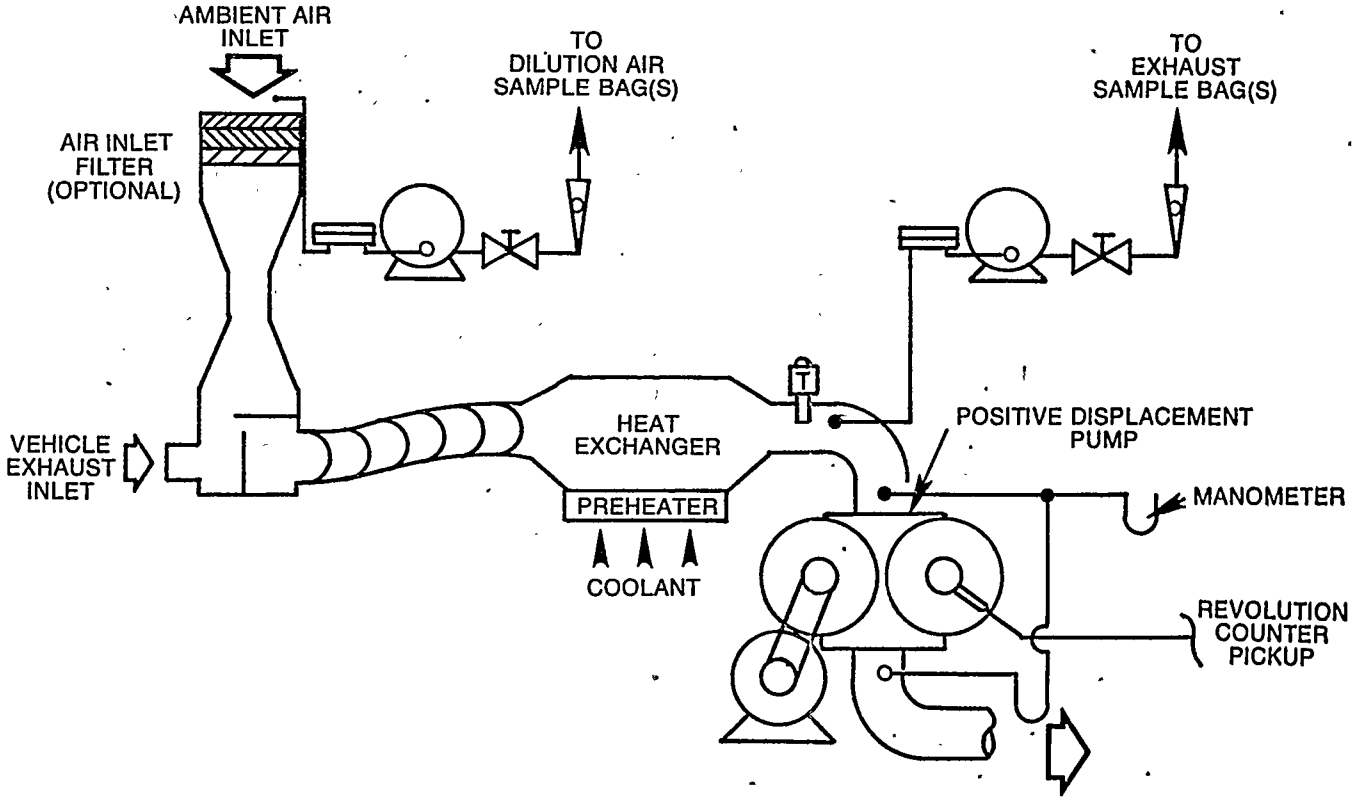
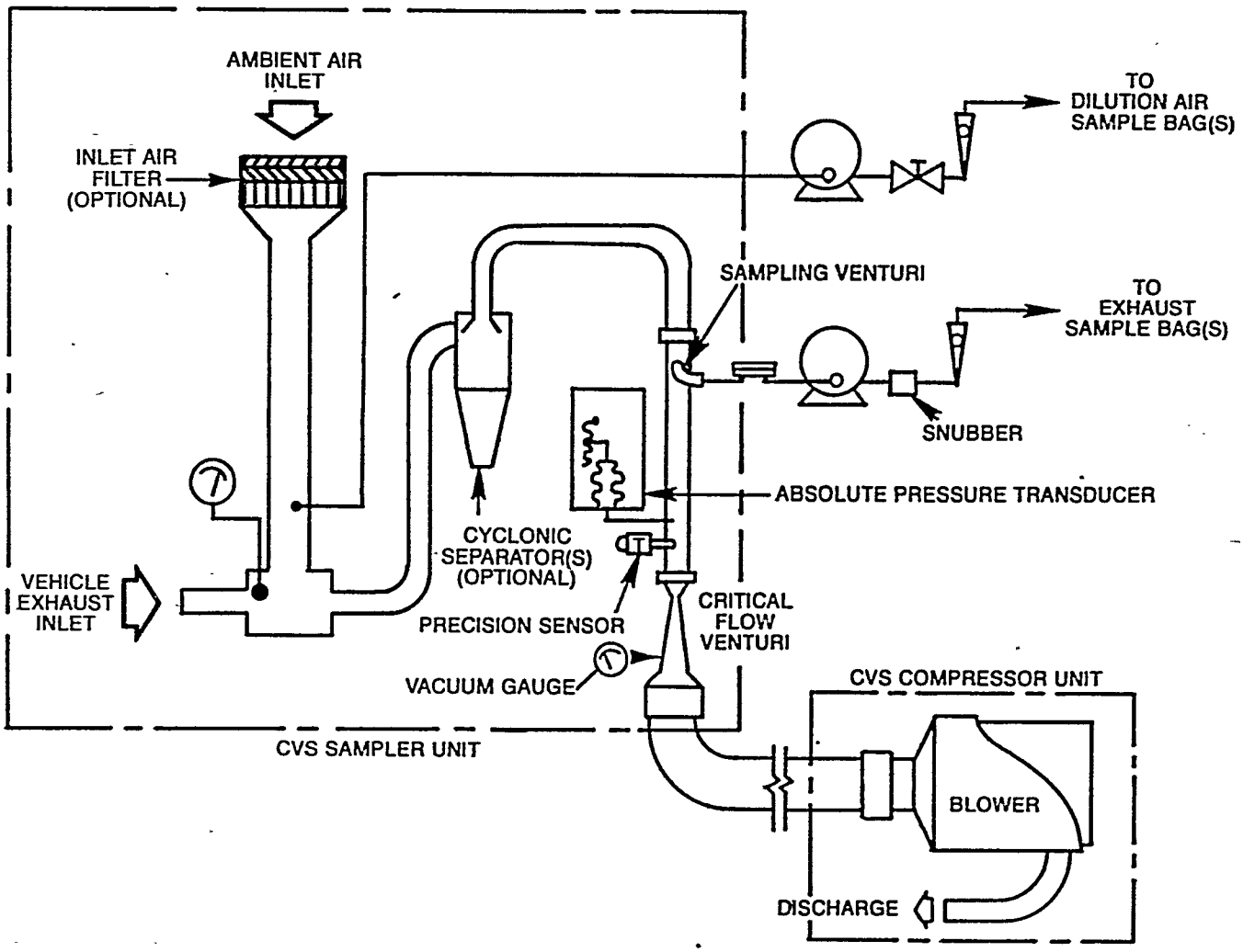



(SEE FIG. N84-5 FOR SYMBOL LEGEND)

FIGURE N84-1 — EXHAUST GAS SAMPLING SYSTEM PDP-CVS

FOR GASOLINE FUELED ENGINES




(SEE FIG. N84-5 FOR SYMBOL LEGEND)

FIGURE N84-2 — EXHAUST GAS SAMPLING SYSTEM (CFV-CVS)
FOR GASOLINE FUELED ENGINES

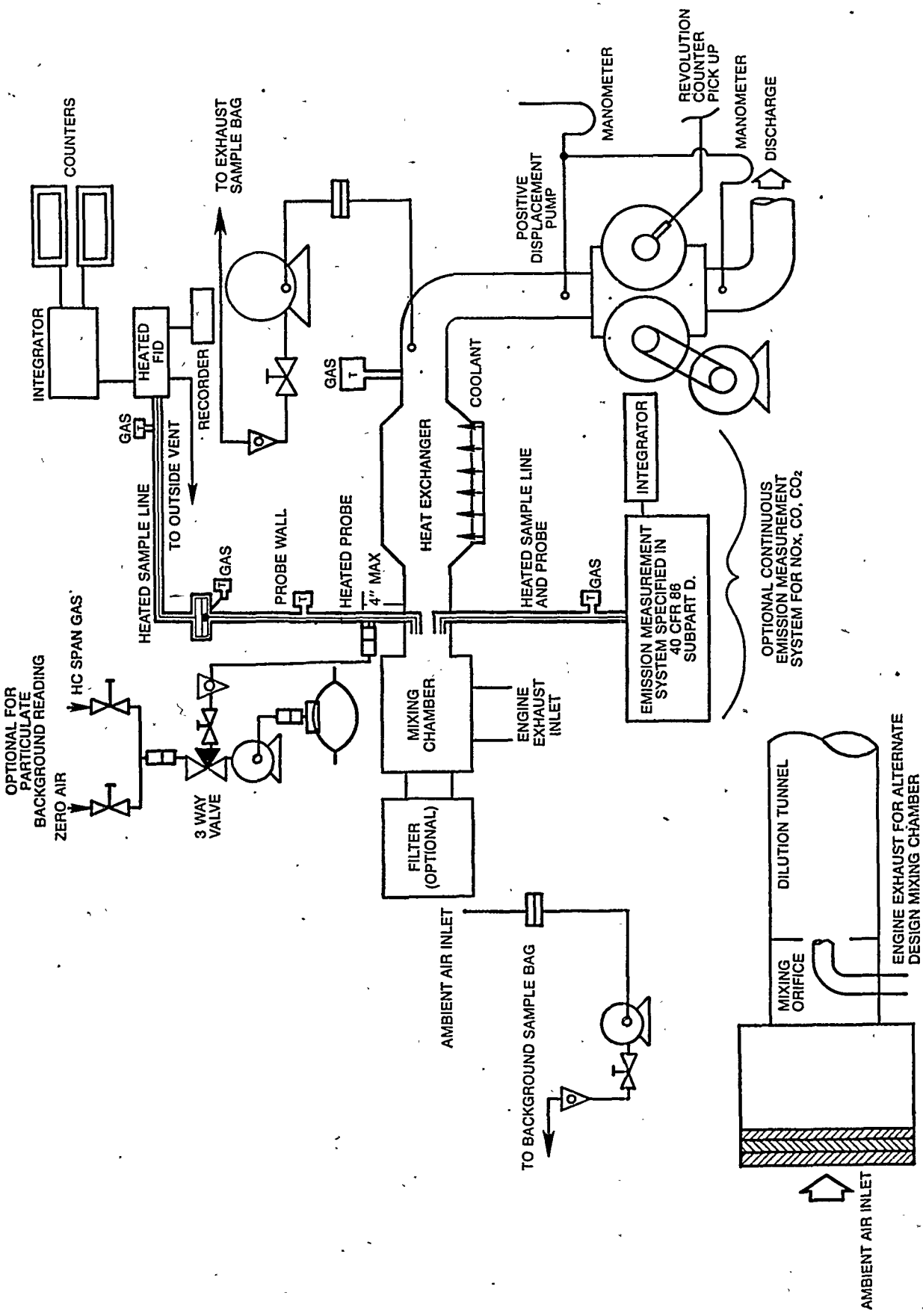



FIGURE N84-3
GASEOUS EMISSIONS SAMPLING SYSTEM (PDP-CVS)
(FOR DIESEL ENGINES ONLY)
(SEE FIGURE N84-5 FOR SYMBOL LEGEND)

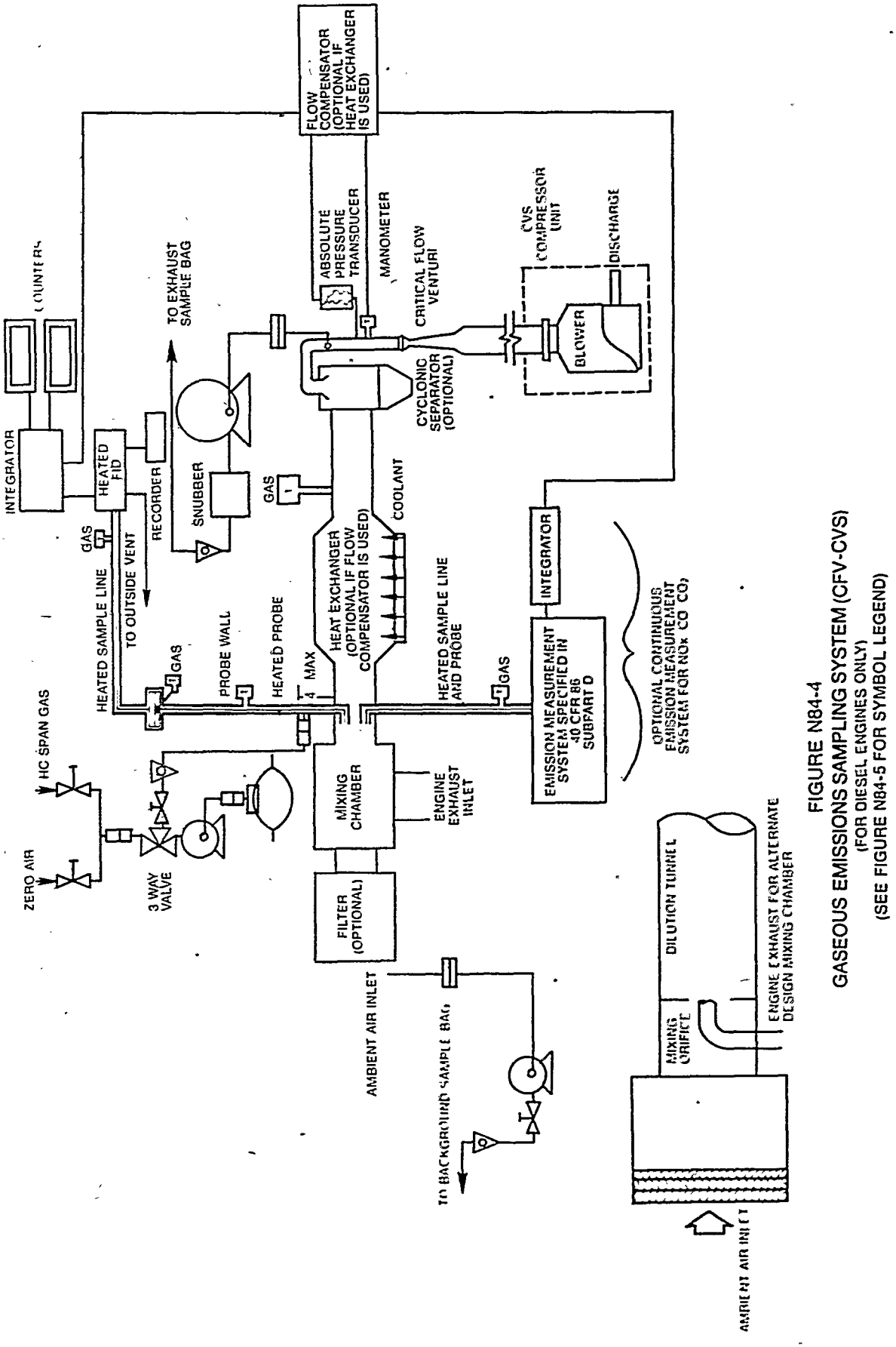



FIGURE N84-4
GASEOUS EMISSIONS SAMPLING SYSTEM (CFV-CVS)
(FOR DIESEL ENGINES ONLY)
(SEE FIGURE N84-5 FOR SYMBOL LEGEND)

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(4) *Other systems.* Other sampling and/or analytical systems including the systems described in § 86.1310–84 for diesel engines may be used if shown to yield equivalent results, and if approved in advance by the Administrator.

(b) *Component description, PDP–CVS.* The PDP–CVS, Figure N84–1, consists of a dilution air filter and mixing assembly, heat exchanger, positive displacement pump, sampling system, and associated valves, pressure and temperature sensors. The PDP–CVS shall conform to the following requirements:

(1) Static pressure variations at the tailpipe(s) of the engine shall remain within ±5 inches of water (1.2 kPa) of the static pressure variations measured during a dynamometer engine cycle with no connection to the tailpipe(s). (Sampling systems capable of maintaining the static pressure to within ±1 inch of water (0.25 kPa) will be used by the Administrator if a written request substantiates the need for this closer tolerance.)

(2) The gas mixture temperature, measured at a point immediately ahead of the positive displacement pump, shall be within ±10° F (5.6° C) of the designed operating temperature at the start of the test. The designed operating temperature may be estimated from the average operating temperature from similar tests. The gas mixture temperature variation (after the heat exchanger) during the entire test shall be limited to ±10° F (5.6° C) from its value at the start of the test. The temperature measuring system shall have an accuracy and precision of ±2° F (1.1° C).

(3) The pressure gauges shall have an accuracy and precision of ±3 mm Hg (0.4 kPa).

(4) The flow capacity of the CVS shall be large enough to eliminate water condensation in the system.

(5) Sample collection bags for dilution air and exhaust samples shall be sufficient size so as not to impede sample flow.

(c) *Component description, CFV–CVS.* The CFV–CVS, Figure N84–2 consists of a dilution air filter (optional) and mixing assembly, optional cyclonic particulate separator(s), sampling venturi, critical flow venturi, sampling system, and assorted valves, pressure and temperature sensors.

The CFV–CVS shall conform to the following requirements:

(1) Static pressure variations at the tailpipe(s) of the vehicle shall remain within ±5 inches of water (1.2 kPa) of the static pressure variations measured during a dynamometer engine cycle with no connection to the tailpipe(s). (Sampling systems capable of maintaining the static pressure to within ±1 inch of water (0.25 kPa) will be used by the Administrator if a written request substantiates the need for this closer tolerance.)

(2) The temperature measuring system shall have an accuracy and precision of ±2° F (1.1° C) and a response time of 0.100 seconds to 62.5 percent of a temperature change (as measured in hot silicone oil).

(3) The pressure measuring system shall have an accuracy and precision of ±3 mm Hg (0.4 kPa).

(4) The flow capacity of the CVS shall be large enough to prevent water condensation in the system.

(5) Sample collection bags for dilution air and exhaust samples shall be of sufficient size so as not to impede sample flow.

**§ 86.1310–84 Exhaust gas sampling and analytical system; diesel engines.**

(a) *General.* The exhaust gas sampling system described in this paragraph is designed to measure the true mass of gaseous emissions in the exhaust of heavy-duty diesel engines. This system utilizes the CVS concept (described in § 86.1309–84) of measuring mass emissions of $NO_x$, CO, and $CO_2$. A continuously integrated system is required for HC measurement, and is allowed for $NO_x$, CO, and $CO_2$. The mass of gaseous emissions is determined from the sample concentration and total flow over the test period. General requirements are as follows:

(1) This sampling system requires the use of a PDP–CVS, or a CFV–CVS with heat exchanger or with electronic flow compensation. Figure N84–3 is a schematic drawing of the PDP system. Figure N84–4 is a schematic drawing of the CFV system.

(2) The HC analytical system for diesel engines requires a heated flame ionization detector (HFID) and heated sample system:

(i) The HFID sample must be taken directly from the diluted exhaust stream through a heated probe and integrated continuously over the test cycle. Unless compensation for varying flow is made, the HFID must be used with a constant flow system to insure a representative sample.

(ii) The heated probe shall be located downstream of a mixing chamber that provides a uniform sample distribution across the CVS duct.

(iii) A dilution tunnel similar to those used for diesel particulate sampling may be used as a mixing chamber.

(3) *Option:*

(i) Continuously integrated measurement of dilute $NO_x$, CO, and $CO_2$ is permitted; however, prior approval of the Administrator is required. Test results will be required as well as engineering data and detailed system specifications to gain this approval. Minimum requirements and technical specifications are given in paragraph (b)(5) of this section.

(4) Bag sampling (§ 86.1309–84) and analytical (§ 86.1311) capabilities as shown in N84–3 (or Figure N84–4) are required if $NO_x$, CO, or $CO_2$ are not measured continuously.

(5) Since various configurations can produce equivalent results, exact conformance with these drawings is not required. Additional components such as instruments, valves, solenoids, pumps, and switches may be used to provide additional information and coordinate the functions of the component systems.

(6) Other sampling and/or analytical systems may be used if shown to yield equivalent results and if approved in advance by the Administrator.

(b) *Component description.* The components necessary for diesel exhaust sampling shall meet the following requirements:

(1) The PDP–CVS, shall conform to all of the requirements listed for the exhaust gas PDP–CVS (§ 86.1309–84(b)). The flow capacity of the CVS must be sufficient to maintain the diluted exhaust stream at a temperature of 375° F (191° C) of less at the sampling zone.

(2) The CFV–CVS shall conform to all of the requirements listed for the exhaust gas CFV–CVS (§ 86.1309–84(c)), along with the following requirements.

(i) The flow capacity of the CVS must be sufficient to maintain the diluted exhaust stream at a temperature of 375° F (191° C) or less at the sampling zone.

(ii) A heat exchanger or electronic flow compensator is required (see Figure N84–4).

(3) Continuous HC measurement system.

(i) The continuous HC sample system (as shown in Figure N84–3 or N84–4) shall be an "overflow calibration (or span) gas" type system. In this type of system, excess span or calibration gas spills out of the probe during calibration of the analyzer.

(ii) No other analyzers may draw a sample from the continuous HC sample probe, line or system.

(iii) The span, calibration, or background sample flow rates into the sample line shall be between 190 and 210 percent of the HFID analyzer flow rate.

(iv) The span, calibration or background gases shall enter the heated

sample line no farther than 4 inches from the CVS duct or dilution tunnel outside surface.

(v) The continuous hydrocarbon probe shall be:

(A) Installed in the dilute stream facing upstream at a point where the dilution air and exhaust are well mixed.

(B) Sufficiently distant (radially) from other probes so as to be free from the influence of any wakes or eddies produced by other probes.

(C) Heated and insulated over the engine length to maintain a 375°±20° F (191°±11° C) *wall* temperature.

(D) 0.5. in (1.27 cm) minimum inside diameter.

(E) It is intended that the total hydrocarbon probe be free from cold spots (i.e., free from spots where the probe wall temperature is less than 355° F (180° C)).

(vi) The dilute exhaust gas flowing in the total hydrocarbon sample system shall be:

(A) At 375°±10° F (191°±6° C) immediately before the heated filter. This *gas* temperature will be determined by a temperature sensor located immediately upstream of the filter. The sensor shall have an accuracy and precision of ±2° F (1.1° C).

(B) At 375°±10° F (191°±6° C) immediately before the HFID. This *gas* temperature will be determined by a temperature sensor located at the exit of the heated sample line. The sensor shall have an accuracy and precision of ±2° F (1.1° C).

(C) It is intended that the dilute exhaust gas flowing in the total hydrocarbon sample system be between 365° F and 385° F (185° C and 197° C) *gas* temperature.

(vii) The response time of the continuous measurement system shall be:

(A) 1.5 seconds from an instantaneous step change at the probe entrance to the analyzer to within 90 percent of the step change.

(B) 5.5. seconds from an instantaneous step change at the entrance to the sample probe or overflow span gas port to within 90 percent of the step change.

(C) For the purpose of verification of response times, the step change shall be at least 60 percent of full-scale chart deflection.

(4) Mixing chamber.

(i) The mixing chamber shall be designed to fully mix the dilution air and exhaust gas while minimizing HC hang up in the system between the entrance of the exhaust gas into the system and the HC sample probe.

(ii) A dilution tunnel similar to those used for diesel particulate testing may be used as a mixing chamber (See Figures N84–3 and N84–4). It shall have the following criteria:

(A) The tunnel shall be of sufficient size to permit development of turbulent flow (Reynold's No. >4000) and complete mixing of the exhaust and dilution air between a mixing orifice;

(B) The engine exhaust shall be directed downstream at the point where it is introduced into the dilution tunnel;

(C) At least 18.0 inches (45.7 cm) in diameter;

(D) Constructed of electrically conductive material which does not react with the exhaust components;

(E) Electrically grounded;

(F) The temperature of the diluted exhaust stream inside of the dilution tunnel shall be sufficient to prevent water condensation;

(G) The continuous hydrocarbon probe shall be installed in the dilution tunnel facing upstream at a point where the dilution air and exhaust are well mixed (i.e., approximately 10 tunnel diameters downstream of the point where the exhaust gas enters the dilution tunnel);

(H) All other factors of the continuous HC measurement system paragraph (b)(3) of this section, shall meet the requirement specified in this subpart for diesel HC measurement systems.

(5) Optional continuously integrated $NO_x$, CO, and $CO_2$ measurement system.

(i) The sample probe shall:

(A) Be in the same plane as the continuous HC probe, but shall be sufficiently distant (radially) from other probes so as to be free from the influences of any wakes or eddies produced by other probes.

(B) Shall face upstream.

(C) Heated and insulated over the entire length to prevent water condensation, minimum temperature is 55° C (131° F). Sample *gas* temperature immediately before the first filter in the system shall be at least 55° C (131° F).

(ii) The continuous $NO_x$, CO, or $CO_2$ sampling and analysis system shall conform to the specifications of 40 CFR Part 86, Subpart D with the following exceptions and revisions:

(A) The system components required to be heated by Subpart D need only be heated to prevent water condensation, the minimum temperature allowed is 55° C (131° F).

(B) The system response defined in § 86.329–79 shall be no greater than 5.5 seconds. Longer response time may be allowed if analysis system response time is coordinated with CVS flow fluctuations, is shown to be equivalent to the 5.5 second system, and if prior approval is granted by the Administrator.

(C) Alternative $NO_x$ measurement techniques outlined in § 86.346–79 are not permitted for $NO_x$ measurement in this Subpart.

(D) All analytical gases shall conform to the specifications of § 86.1314–84.

(E) Any range on a linear analyzer below 155 ppm shall have and use a calibration curve conforming to § 86.330–79.

(F) The measurement accuracy requirements specified in § 86.338–79 are superseded by those specified in § 86.1338–84.

(iii) The chart deflections of analyzers with non-linear calibration curves shall be converted to concentration values by the calibration curve(s) specified in Subpart D (§ 86.330–79) before flow correction (if used) and subsequent integration takes place.

**§ 86.1311–84 Exhaust gas analytical system. CVS bag sample.**

(a) *Schematic drawings.* Figure N84–5 is a schematic drawing of the exhaust gas analytical system used for analyzing CVS bag samples from either gasoline-fueled or diesel engines. Since various configurations can produce accurate results, exact conformance with the drawing is not required. Additional components such as instruments, valves, solenoids, pumps and switches may be used to provide additional information and coordinate the functions of the component systems.

(b) *Major component description.* The analytical system, Figure N83–3, consists of a flame ionization detector (FID) for the determination of hydrocarbons, nondispersive infrared analyzers (NDIR) for the determination of carbon monoxide and carbon dioxide and a chemiluminescence analyzer (CL) for the determination of oxides of nitrogen.

The exhaust gas analytical system shall conform to the following requirements:

(1) The CL requires that the nitrogen dioxide present in the sample be converted to nitric oxide before analysis. Other types of analyzers may be used ge if shown to yield equivalent results and if approved in advance by the Administrator.

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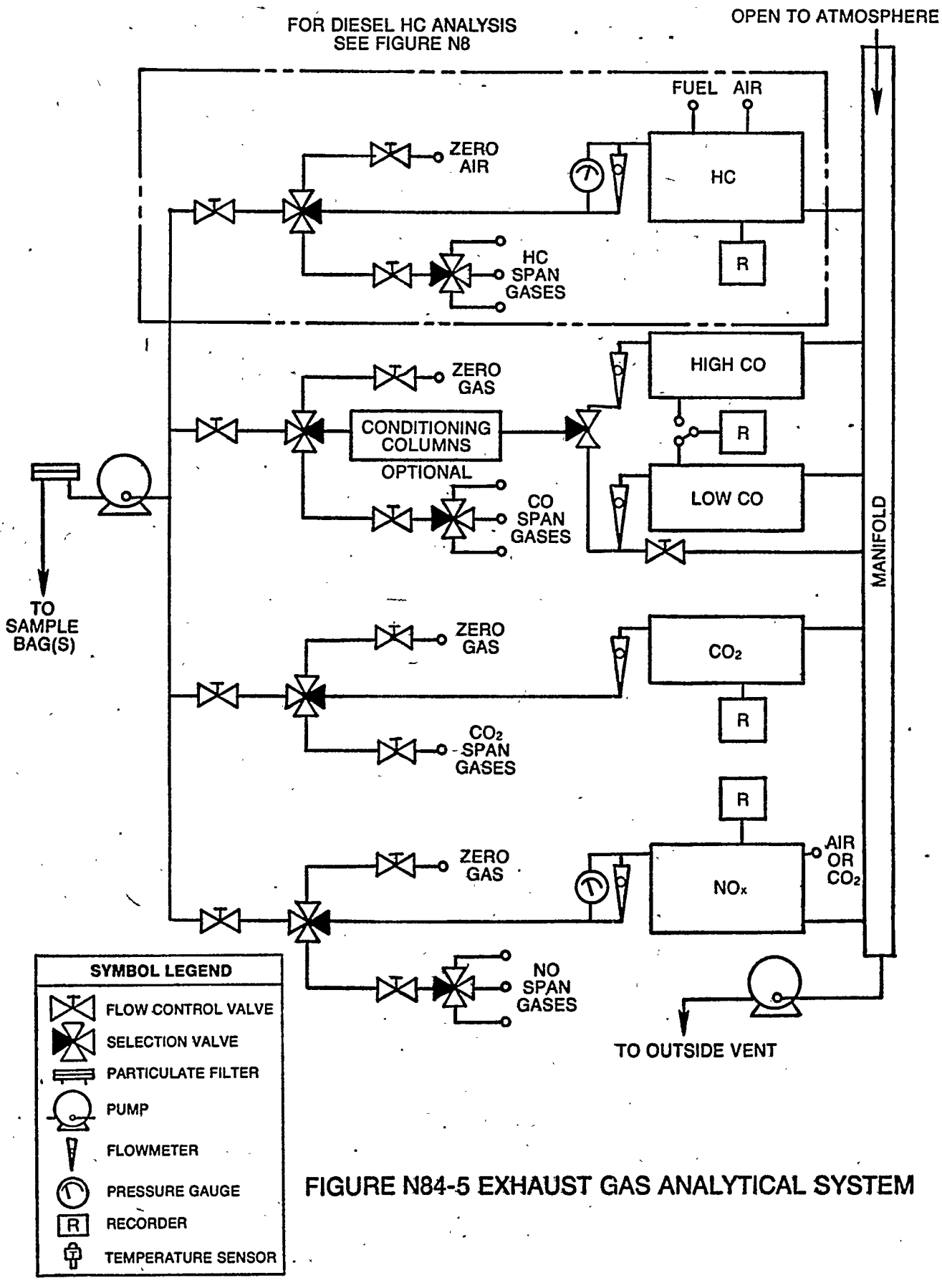


FIGURE N84-5 EXHAUST GAS ANALYTICAL SYSTEM

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(2) The carbon monoxide (NDIR) analyzer may require a sample conditioning column containing $CaSO_4$, or indicating silica gel to remove water vapor and containing ascarite to remove carbon dioxide from the CO analysis stream.

(i) If CO instruments are used which are essentially free of $CO_2$ and water vapor interference, the use of the conditioning column may be deleted. (See § 86.1322–84 and § 86.1342–84.)

(ii) A CO instrument will be considered to be essentially free of $CO_2$ and water vapor interference if its response to a mixture of 3 percent $CO_2$ in $N_2$ which has been bubbled through water at room temperature produces an equivalent CO response, as measured on the most sensitive CO range, which is less than 1 percent of full scale CO concentration on ranges above 300 ppm full scale or less than 3 ppm on ranges below 300 ppm full scale. (See § 86.1322–84.)

(c) *Alternate analytical systems.* Analysis systems meeting the specifications of 40 CFR 86, Subpart D may be used for testing this Subpart (N) with the exception of §§ 86.346–79 and 86.347–79, provided that the Subpart D systems meet the specifications of this Subpart. Heated analyzers may be used in their heated configuration.

(d) *Other analyzers and equipment.* Other types of analyzers and equipment may be used if shown to yield equivalent results and if approved in advance by the Administrator.

**§ 86.1312–84 [Reserved]**

**§ 86.1313–84 Fuel specifications.**

(a) *Gasoline.* (1) Gasoline having the following specifications will be used by the Adminstrator in exhaust emission testing. Gasoline having the following specifications or substantially equivalent specifications approved by the Administrator, shall be used by the manufacturer in exhaust testing, except that the lead and octane specifications do not apply.

(2) Gasoline representative of commercial gasoline which will be generally available through retail outlets shall be used in service accumulation. For leaded gasoline the minimum lead content shall be 1.4 grams per U.S. gallon, except that where the Administrator determines that vehicles represented by a test vehicle will be operated using gasoline of different lead content than that prescribed in this paragraph, he may consent in writing to use of a gasoline with a different lead content. The octane rating of the gasoline used shall be not higher than 1.0 Research octane number above the minimum recommended by the manufacturer and have a minimum sensitivity of 7.5 octane numbers, where sensitivity is defined as the Research octane number minus the Motor octane number. The Reid Vapor Pressure of the gasoline used shall be characteristic of the motor fuel used during the season in which the service accumulation takes place.

(3) The specification range of the gasoline to be used under paragraph (a)(2) of this section shall be reported in accordance with § 86.084–21(b)(3).

(b) *Diesel fuel.* (1) The diesel fuels employed for testing shall be clean and bright, with pour and cloud points adequate for operability. The diesel fuel may contain nonmetallic additives as follows: Cetane improver, metal deactivator, antioxidant; dehazer, antirust, pour depressant, dye, and dispersant.

(2) Diesel fuel meeting the following specifications, or substantially equivalent specifications approved by the Administrator, shall be used in exhaust emissions testing. The grade of diesel fuel recommended by the engine manufacturer commercially designated as "Type 1–D" or "Type 2–D" grade diesel fuel shall be used.

(3) Diesel fuel meeting the following specifications, or substantially equivalent specifications approved by the Administrator, shall be used in service accumulation. The grade of diesel fuel recommended by the engine manufacturer, commercially designated as "Type 1–D" or "Type 2–D" grade diesel fuel shall be used.

| Item | ASTM | Leaded | Unleaded |
|---|---|---|---|
| Octane, research, minimum | D2699 | 98 | 93 |
| Pb. (organic), gm/U.S. gallon | | [1]1.4 | 0.00–0.05 |
| Distillation range: | | | |
| IBP, °F | D86 | 75–95 | 75–95 |
| 10 percent point, °F | D86 | 120–135 | 120–135 |
| 50 percent point, °F | D86 | 200–230 | 200–230 |
| 90 percent point, °F | D86 | 300–325 | 300–325 |
| EP, °F (maximum) | D86 | 415 | 415 |
| Sulphur, weight percent, (max) | D1266 | 0.10 | 0.10 |
| Phosphorus, gm/U.S. gallon (max) | | 0.01 | 0.005 |
| RVP, psi | D323 | 8.7–9.2 | 8.7–9.2 |
| Hydrocarbon composition: | | | |
| Olefins, percent, (max) | D1319 | 10 | 10 |
| Aeromatics, percent (max) | D1319 | 35 | 35 |
| Saturates | D1319 | [2] | [2] |

[1] Minimum.
[2] Remainder.

| Item | ASTM | Type 1–D | Type 2–D |
|---|---|---|---|
| Cetane | D613 | 48–54 | 42–50 |
| Distillation range: | | | |
| IBP °F | D86 | 330–390 | 340–400 |
| 10 percent point, °F | D86 | 370–430 | 400–460 |
| 50 percent point, °F | D86 | 410–480 | 470–540 |
| 90 percent point, °F | D86 | 460–520 | 550–610 |
| EP, °F | D86 | 500–560 | 580–660 |
| Gravity, °API | D287 | 40–44 | 33–37 |
| Total Sulfur, percent | D129 or D2622. | 0.05–0.20 | 0.2–0.5 |
| Hydrocarbon composition: | | | |
| Aromatics, percent | D1319 | [1]8 | [1]27 |
| Parafins, Naphthenes, Olefins | D1319 | [1] | [1] |
| Flashpoint, °F (minimum) | D93 | 120 | 130 |
| Viscosity, Centistokes | D445 | 1.6–2.0 | 2.0–3.2 |

[1] Minimum.

| Item | ASTM | Type 1–D | Type 2–D |
|---|---|---|---|
| Cetane (minimum) | D613 | 42–56 | 30–58 |
| Distillation range: | | | |
| 90 percent point, °F | D86 | 440–530 | 540–630 |
| Gravity °API | D287 | 39–45 | 30–42 |
| Total sulfur, percent (minimum) | D129 or D2622. | [1]0.05 | 0.2 |
| Flashpoint, °F (minimum) | D93 | 120 | 130 |
| Viscosity, centistokes | D455 | 1.2–2.2 | 1.5–4.5 |

[1] Minimum.

(4) Other petroleum distillate fuels may be used for testing and service accumulation provided they are:

(i) Commercially available;

(ii) Information, acceptable to the Administrator, is provided to show that only the designated fuel would be used in customer service;

(iii) Use of a fuel listed under paragraphs (b)(2) and (b)(3) of this section would have a detrimental effect on emissions or durability;

(iv) Written approval from the Administrator of the fuel specifications must be provided prior to the start of testing.

(5) The specification range of the fuels to be used under paragraphs (b)(2), (b)(3), and (b)(4) of this section shall be reported in accordance with § 86.084–21(b)(3).

**§ 86.1314–84 Analytical gases.**

(a) *Analyzer gases.*

(1) Gases for the CO and $CO_2$ analyzers shall be single blends of CO and $CO_2$ respectively using nitrogen as the diluent.

(2) Gases for the hydrocarbon analyzer shall be single blends of propane using air as the diluent.

(3) Gases for the $NO_x$ analyzer shall be single blends of NO named as $NO_x$ with a maximum $NO_2$ concentration of 5 percent of the nominal value using nitrogen as the diluent.

(4) Fuel for the FID shall be a blend of $40 \pm 2$ percent hydrogen with the balance being helium. The mixture shall contain less than 1 ppm equivalent carbon response. 98 to 100% hydrogen fuel may be used with advance approval of the Administrator.

(5) The allowable zero gas (air or nitrogen) impurity concentrations shall not exceed 1 ppm equivalent carbon response, 1 ppm carbon monoxide, 0.04 percent (400 ppm) carbon dioxide and 0.1 ppm nitric oxide.

(6)(i) "Zero-grade air" includes artificial "air" consisting of a blend of nitrogen and oxygen with oxygen concentrations between 18 and 21 mole percent.

(ii) Calibration gases shall be traceable to within 1 percent of NBS gas standards, or other gas standards which have been approved by the Administrator.

(iii) Span gases shall be accurate to within 2 percent of true concentration, where true concentration refers to NBS gas standards, or other gas standards which have been approved by the Administrator.

(7) The use of proportioning and precision blending devices to obtain the required gas concentrations is allowable provided their use has been approved in advance by the Administrator.

**§ 86.1315–84 [Reserved]**

**§ 86.1316–84 Calibrations; frequency and overview.**

(a) Calibrations shall be performed as specified in §§ 86.1318–84 through 86.1326–84.

(b) At least monthly or after any maintenance which could alter calibration, the following calibrations and checks shall be performed:

(1) Calibrate the hydrocarbon analyzer, carbon dioxide analyzer, carbon monoxide analyzer, and oxides of nitrogen analyzer.

(2) Calibrate the engine dynamometer flywheel torque and speed measurement transducers.

(3) Calibrate the engine flywheel torque and speed feedback signals.

(c) At least weekly or after any maintenance which could alter calibration, the following calibrations and checks shall be performed:

(1) Check the oxides of nitrogen converter efficiency, and;

(2) Perform a CVS system verification.

(d) The CVS positive displacement pump or critical flow venturi shall be calibrated following initial installation, major maintenance or as necessary when indicated by the CVS system verification (described in § 86.1319–84).

(e) Sample conditioning columns, if used in the CO analyzer train, should be checked at a frequency consistent with observed column life or when the indicator of the column packing begins to show deterioration.

**§ 86.1317–84 [Reserved]**

**§ 86.1318–84 Engine dynamometer calibrations.**

(a) The engine flywheel torque and engine speed measurement transducers shall be calibrated at least once each month with the calibration equipment described in § 86.1308–84.

(b) The engine flywheel torque and speed feedback signal shall be calibrated at least once each month.

(c) Other engine dynamometer system calibrations shall be performed as dictated by good engineering practice and manufacturer's recommendations.

(d) When calibrating the engine flywheel torque transducer, any lever arm used to convert a weight or a force through a distance into a torque shall be used in a horizontal position ($\pm 5°$).

(e) Calibrated resistors may not be used for engine flywheel torque transducer calibration, but may be used to span the transducer prior to engine testing.

**§ 86.1319–84 CVS calibration.**

(a) The CVS is calibrated using an accurate flowmeter and restrictor valve. The calibrated accuracy of the flowmeter shall be traceable to the National Bureau of Standards to within 1 percent of the true flow value.

Note.—In no case should an upstream screen or other restriction which can affect the flow be used ahead of the flowmeter unless calibrated throughout the flow range with such a device.

The CVS calibration procedures are designed for use of a "metering venturi" type flowmeter. Properly calibrated large radius or ASME flow nozzles are considered equivalent if traceable to NBS measurements. Other measurement systems may be used if shown to be equivalent under the test conditions in this action and if approved by the Administrator. Measurements of the various flowmeter parameters are recorded and related to flow through the CVS. Procedures used by EPA for both PDP– and CFV–CVS's are outlined below. Other procedures yielding equivalent results may be used if approved in advance by the Administrator.

(b) After the calibration curve has been obtained, verification of the entire system may be performed by injecting a known mass of gas into the system and comparing the mass indicated by the system to the true mass injected. An indicated error does not necessarily mean that the calibration is wrong, since other factors can influence the accuracy of the system, e.g. analyzer calibration or HC hangup. A verification procedure is found in paragraph (e) of this section.

(c) PDP calibration.

(1) The following calibration procedure outlines the equipment, the test configuration, and the various parameters which must be measured to establish the flow rate of the CVS pump.

(i) All the parameters related to the pump are simultaneously measured with the parameters related to a flowmeter which is connected in series with the pump.

(ii) The calculated flow rate, $ft^3/min.$, (at pump inlet absolute pressure and temperature) can then be plotted versus a correlation function which is the value of a specific combination of pump parameters.

(iii) The linear equation which relates the pumpflow and the correlation function is then determined.

(iv) In the event that a CVS has a multiple speed drive, a calibration for each range used must be performed.

(2) This calibration procedure is based on the measurement of the absolute values of the pump and flowmeter parameters that relate the flow rate at each point. Three conditions must be maintained to assure the accuracy and integrity of the calibration curve:

(i) The pump pressures should be measured at taps on the pump rather than at the external piping on the pump inlet and outlet. (Pressure taps that are mounted at the top center and bottom center of the pump drive headplate are exposed to the actual pump cavity pressure, and therefore reflect the absolute pressure differentials.)

(ii) The temperature stability must be maintained during calibration. (Flowmeters are sensitive to inlet temperature oscillations which cause the data points to be scattered. Gradual changes in temperature are acceptable as long as they occur over a period of several minutes.)

(iii) All connections between the flowmeter and the CVS pump must be absolutely void of any leakage.

(3) During an exhaust emission test the measurment of these same pump parameters enables the user to calculate the flow rate from the calibration equation.

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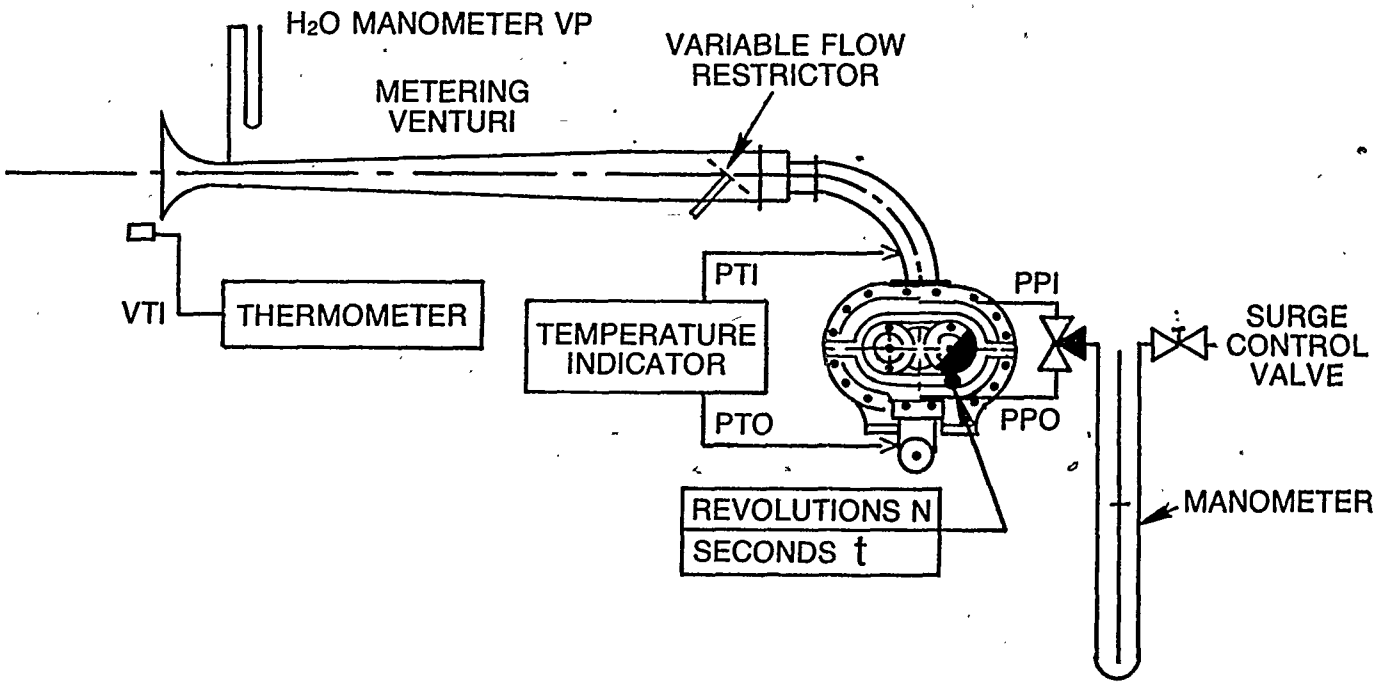


FIGURE N84-6 — PDP-CVS CALIBRATION CONFIGURATION

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(4) Connect a system as shown in Figure N84–6. Although particular types of equipment are shown, other configurations that yield equivalent results may be used if approved in advance by the Administrator. For the system indicated, the following data with given accuracy are required:

**Calibration Data Measurements**

| Parameter | Sym | Units | Tolerances |
|---|---|---|---|
| Barometric pressure (corrected) | $P_B$ | In. Hg (kPa) | ±.01 in. Hg (±.034 kPa). |
| Ambient temperature | $T_A$ | °F (°C) | ±.5° F (±.28° C). |
| Air temperature into SFV | ETI | °F (°C) | ±.50° F (±.28° C). |
| Pressure drop between SFV inlet and throat | EDP | In. $H_2O$ (kPa) | ±.05 in. $H_2O$ (±.012 kPa). |
| Air temperature at CVS pump inlet | PTI | °F (°C) | ±.5° F (±.28° C). |
| Pressure depression at CVS pump inlet | PPI | In. fluid (kPa) | ±.05 in. fluid (±.022 kPa). |
| Specific gravity of manometer fluid (1.75 oil) | Sp. G | | |
| Pressure head at CVS pump outlet | PPO | In. fluid (kPa) | ±.05 in. fluid (±.022 kPa). |
| Air Temperature at CVS pump outlet (optional) | PTO | °F (°C) | ±.5° F (±.28° C). |
| Pump revolutions during test period | N | Revs | ±1 Rev. |
| Elapsed time for test period | t | s | ±.05 s. |

(5) After the system has been connected as shown in Figure N84–6, set the variable restrictor in the wide open position and run the CVS pump for 20 minutes. Record the calibration data.

(6) Reset the restrictor valve to a more restricted condition in an increment of pump inlet depression that will yield a minimum of six data points for the total calibration. Allow the system to stabilize for 3 minutes and repeat the data acquisition.

(7) *Data analysis:*

(i) The air flow rate, Qs, at each test point is calculated in standard cubic feet per minute (68° F, 29.92" HG) from the flowmeter data using the manufacturer's prescribed method.

(ii) The air flow rate is then converted to pump flow, $V_o$, in cubic feet per revolution at absolute pump inlet temperature and pressure.

$$V_o = \frac{Qs}{n} \times \frac{T_p}{528} \times \frac{29.92}{P_p}$$

Where:

$V_o$=Pump flow, $ft^3$/revolution ($m^3$/revolution) at $T_p$, $P_p$.

Qs=Meter air flow rate in standard cubic feet per minute, standard conditions are 68° F, 29.92 in. Hg (20°C, 101.3 kPa.)

n=Pump speed in revolutions per minute.

$T_p$=Pump inlet temperature R(K)
=PTI+460 (°R), or
=PTI+273 (°K).

$P_p$=Absolute pump inlet pressure, in. Hg (kPa)
=$P_B$−PPI (Sp. Gr./13.57) for SI units,
$P_p$=$P_B$−PPI

Where:

$P_B$=barometric pressure, in. Hg (kPa).

PPI=Pump inlet depression, in. fluid (kPa).

Sp. Gr.=Specific gravity of manometer fluid relative to water.

(iii) The correlation function at each test point is then calculated from the calibration data.

$$X_o = \frac{1}{n}\sqrt{\frac{P_p}{P_e}}$$

Where:

$x_o$=correlation function.

$\Delta p_p$=The pressure differential from pump inlet to pump outlet, in. Hg (kPa).
=$P_e$−$P_p$

$P_e$=Absolute pump outlet pressure, in. Hg (kPa)
=$P_B$+PPO (Sp. Gr./13.57) for SI units,
$P_e$=$P_B$+PPO

(b) *CFV calibration.* (1) Calibration of the CFV is based upon the flow equation for a critical venturi. Gas flow is a function of inlet pressure and temperature:

$$Q_s = \frac{K_v P}{\sqrt{T}}$$

Where:

$Q_s$=flow,

$K_v$=calibration coefficient,

P=absolute pressure,

T=absolute temperature.

The calibration procedure described below establishes the value of the calibration coefficient at measured values of pressure, temperature and air flow.

(2) The manufacturer's recommended procedure shall be followed for calibrating electronic portions of the CFV.

(3) Measurements necessary for flow calibration are as follows:

**Calibration Data Measurements**

| Parameter | Sym | Units | Tolerances |
|---|---|---|---|
| Barometric Pressure (corrected) | $P_B$ | In. Hg (kPa) | ±.01 in. Hg (±.034 kPa). |
| Air temperature, flowmeter | ETI | °F (°C) | ±.50°F (±.28°C). |
| Pressure drop between SFV inlet and throat | EDP | In. $H_2O$ (kPa) | ±.05 in. $H_2O$ (±.012 kPa). |
| Air flow | $Q_s$ | $Ft^3$/min. ($m^3$/min.) | ±.5%. |
| CFV inlet depression | FFI | In. fluid (kPa) | ±.05 in. fluid (±.022 kPa). |
| Temperature at venturi inlet | $T_v$ | °F (°C) | ±.5°F (±.28°C). |
| Specific gravity of manometer fluid (1.75 oil) | Sp. Gr. | | |

(4) Set up equipment as shown in Figure N84–7 and check for leaks. Any leaks between the flow measuring devices and the critical flow venturi will seriously affect the accuracy of the calibration.

(5) Set the variable flow restrictor to the open position, start the blower, and allow the system to stabilize. Record data from all instruments.

(6) Vary the flow restrictor and make at least 8 readings across the critical flow range of the venturi.

(7) *Data analysis.* The data recorded during the calibration are to be used in the following calculations:

(i) The air flow rate, $Q_s$, at each test point is calculated in standard cubic feet per minute from the flow meter data using the manufacturer's prescribed method.

(ii) Calculate values of the calibration coefficient for each test point:

$$K_v = \frac{Q_s\sqrt{T_v}}{P_v}$$

Where:

$Q_s$=Flow rate in standard cubic feet per minute, standard conditions are 68° F, 29.92 in. Hg (20° C, 101.3 kPa).

$T_v$=Temperature at venturi inlet, R(K).

$P_v$=Pressure at venturi inlet, mm Hg (kPa).
=$P_B$−PPI (Sp. Gr./13.57).
for SI units: $P_v$=$P_B$−PPI.

Where:

PPI=Venturi inlet pressure depression, in. fluid (kPa).

Sp. Gr.=Specific gravity of manometer fluid, relative to water.

(iii) Plot $K_v$ as a function of venturi

inlet pressure. For sonic flow, $K_v$ will have a relatively constant value. As pressure decreases (vacuum increases), the venturi becomes unchoked and $K_v$ decreases. See Figure N84–8.

(iv) For a minimum of 8 points in the critical region calculate an average $K_v$ and the standard deviation.

(v) If the standard deviation exceeds 0.3 percent of the average $K_v$ take corrective action.

(e) *CVS system verification.* The following "gravimetric" technique can be used to verify that the CVS and analytical instruments can accurately measure a mass of gas that has been injected into the system. (Verification can also be accomplished by constant flow metering using critical flow orifice devices.)

(1) Obtain a small cylinder that has been charged with pure propane or carbon monoxide gas (caution—carbon monoxide is poisonous).

(2) Determine a reference cylinder weight to the nearest 0.01 grams.

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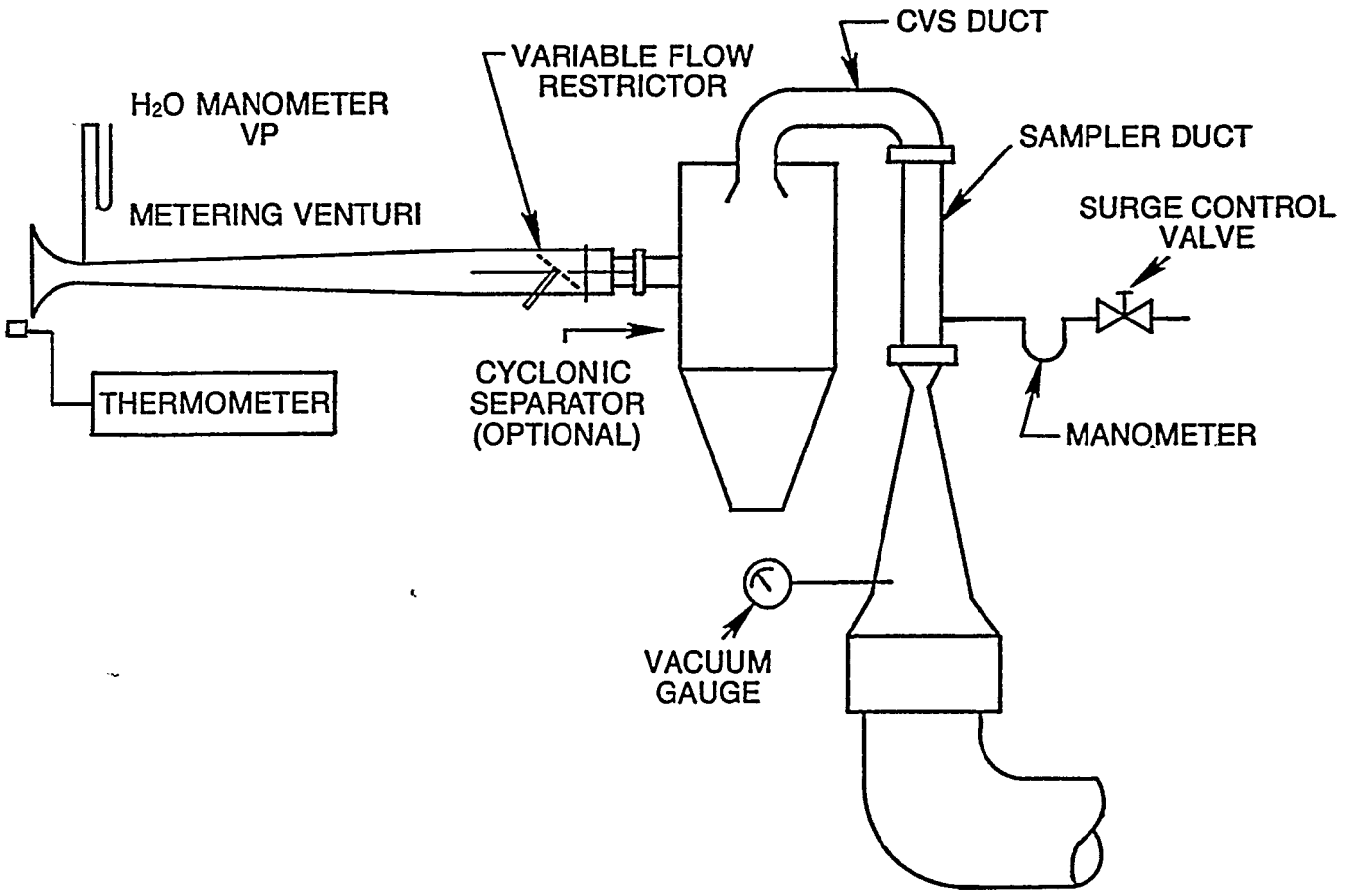


FIGURE N84-7 — CFV-CVS CALIBRATION CONFIGURATION

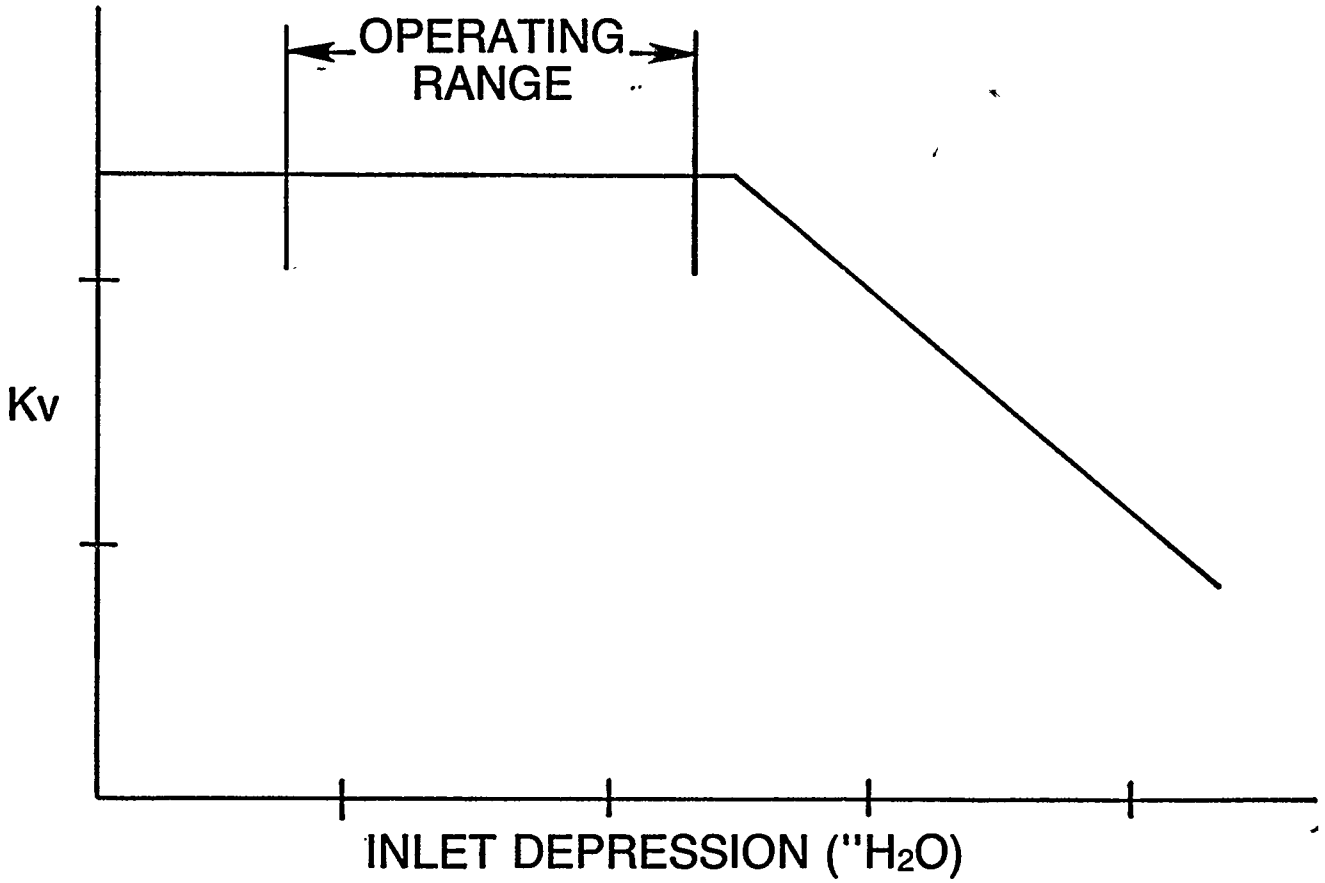


FIGURE N84-8— SONIC FLOW CHOKING

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(3) Operate the CVS in the normal manner and release a quantity of pure propane or carbon monoxide into the system during the sampling period (approximately 5 minutes).

(4) The calculations of § 86.1342 are performed in the normal way except in the case of propane. The density of propane (17.56 g/ft³/carbon atom (0.6201 kg/m³/carbon atom)) is used in place of the density of exhaust hydrocarbons. In the case of carbon monoxide, the density of 32.97 g/ft³ (1.164 kg/m³) is used.

(5) The gravimetric mass is subtracted from the CVS measured mass and then divided by the gravimetric mass to determine the percent accuracy of the system.

(6) Good engineering practice requires that the cause for any discrepancy greater than ±2 percent must be found and corrected.

**§ 86.1320-84 [Reserved]**

**§ 86.1321-84 Hydrocarbon analyzer calibration.**

The FID hydrocarbon analyzer shall receive the following initial and periodic calibration. The HFID shall be operated to a set point ±10°F (±5.5°C) between 365 and 385°F (185 and 197°C).

(a) Initial and periodic optimization of detector response. Prior to its introduction into service and at least annually thereafter the FID hydrocarbon analyzer shall be adjusted for optimum hydrocarbon response. Alternate methods yielding equivalent results may be used, if approved in advance by the Administrator.

(1) Follow the manufacturer's instructions for initial instrument start-up and basic operating adjustment using the appropriate fuel (see § 86.1314-84 and zero-grade air.

(2) Optimize on the most common operating range. Introduce into the analyzer, a propane in air mixture with a propane concentration equal to approximately 90% of the most common operating range.

(3) One of the following procedures is required for FID or HFID optimization.

(i) The procedures outlined in Society of Automotive Engineers (SAE) paper No. 770141, "Optimization of Flame Ionization Detector for Determination of Hydrocarbons in Diluted Automobile Exhaust"; author, Glenn D. Reschke.

(ii) The HFID optimization procedures outlined in 40 CFR Part 86, Subpart D.

(iii) Alternate procedures are allowed, if approved in advance by the Administrator.

(4) After the optimum flow rates have been determined, they are recorded for future reference.

(b) Initial and periodic calibration. Prior to its introduction into service and monthly thereafter the FID or HFID hydrocarbon analyzer shall be calibrated on all normally used instrument ranges. Use the same flow rate as when analyzing samples.

(1) Adjust analyzer to optimize performance.

(2) Zero the hydrocarbon analyzer with zero-grade air.

(3) Calibrate on each used operating range with propane in air calibration gases having nominal concentrations of 15, 30, 45, 60, 75 and 90 percent of that range. For each range calibrated, if the deviation from a least-squares best-fit straight line is 2% or less of the value at each data point, concentration values may be calculated by use of a single calibration factor for that range. If the deviation exceeds 2% at any point, the best-fit non-linear equation which represent the data to within 2% of each test point shall be used to determine concentration.

**§ 86.1322-84 Carbon monoxide analyzer calibration.**

The NDIR carbon monoxide analyzer shall receive the following initial and periodic calibrations:

(a) Initial and periodic interference check. Prior to its introduction into service and annually thereafter the NDIR carbon monoxide analyzer shall be checked for response to water vapor and $CO_2$:

(1) Follow the manufacturer's instructions for instrument start-up and operation. Adjust the analyzer to optimize performance on the most sensitive range to be used.

(2) Zero the carbon monoxide analyzer with either zero-grade air or zero-grade nitrogen.

(3) Bubble a mixture of 3 percent $CO_2$ in $N_2$ through water at room temperature and record analyzer response.

(4) An analyzer response of more than 1 percent of full scale for ranges above 300 ppm full scale or more than 3 ppm on ranges below 300 ppm full scale will require corrective action. (Use of conditioning columns is one form of corrective action which may be taken.)

(b) Initial and periodic calibration. Prior to its introduction into service and monthly thereafter the NDIR carbon monoxide analyzer shall be calibrated.

(1) Adjust the analyzer to optimize performance.

(2) Zero the carbon monoxide analyzer with either zero-grade air or zero-grade nitrogen.

(3) Calibrate on each used operating range with carbon monoxide in $N_2$ calibration gases having nominal concentrations of 15, 30, 45, 60, 75, and 90 percent of that range. Additional calibration points may be generated. For each range calibrated, if the deviation from a least-squares best-fit straight line is 2 percent of less of the value at each data point, concentration values may be calculated by use of a single calibration factor for that range. If the deviation exceeds 2 percent at any point, the best-fit non-linear equation which represents the data to within 2% of each test point shall be used to determine concentration.

(c) The initial and periodic interference, system check, and calibration test procedures specified in 40 CFR Part 86 may be used in lieu of the procedures specified in this section.

**§ 86.1323-84 Oxides of nitrogen analyzer calibration.**

The chemiluminescent oxides of nitrogen analyzer shall receive the following initial and periodic calibration.

(a) Prior to its introduction into service and weekly thereafter the chemiluminescent oxides of nitrogen analyzer shall be checked for $NO_2$ to NO converter efficiency. Figure N84-9 is a reference for the following paragraphs:

(1) Follow the manufacturer's instructions for instrument start-up and operation. Adjust the analyzer to optimize performance.

(2) Zero the oxides of nitrogen analyzer with zero-grade air or zero-grade nitrogen.

(3) Connect the outlet of the $NO_x$ generator to the sample inlet of the oxides of nitrogen analyzer which has been set to the most common operating range.

(4) Introduce into the $NO_x$ generator analyzer-system an NO in nitrogen ($N_2$) mixture with a NO concentration equal to approximately 80 percent of the most common operating range. The $NO_2$ content of the gas mixture shall be less than 5 percent of the NO concentration.

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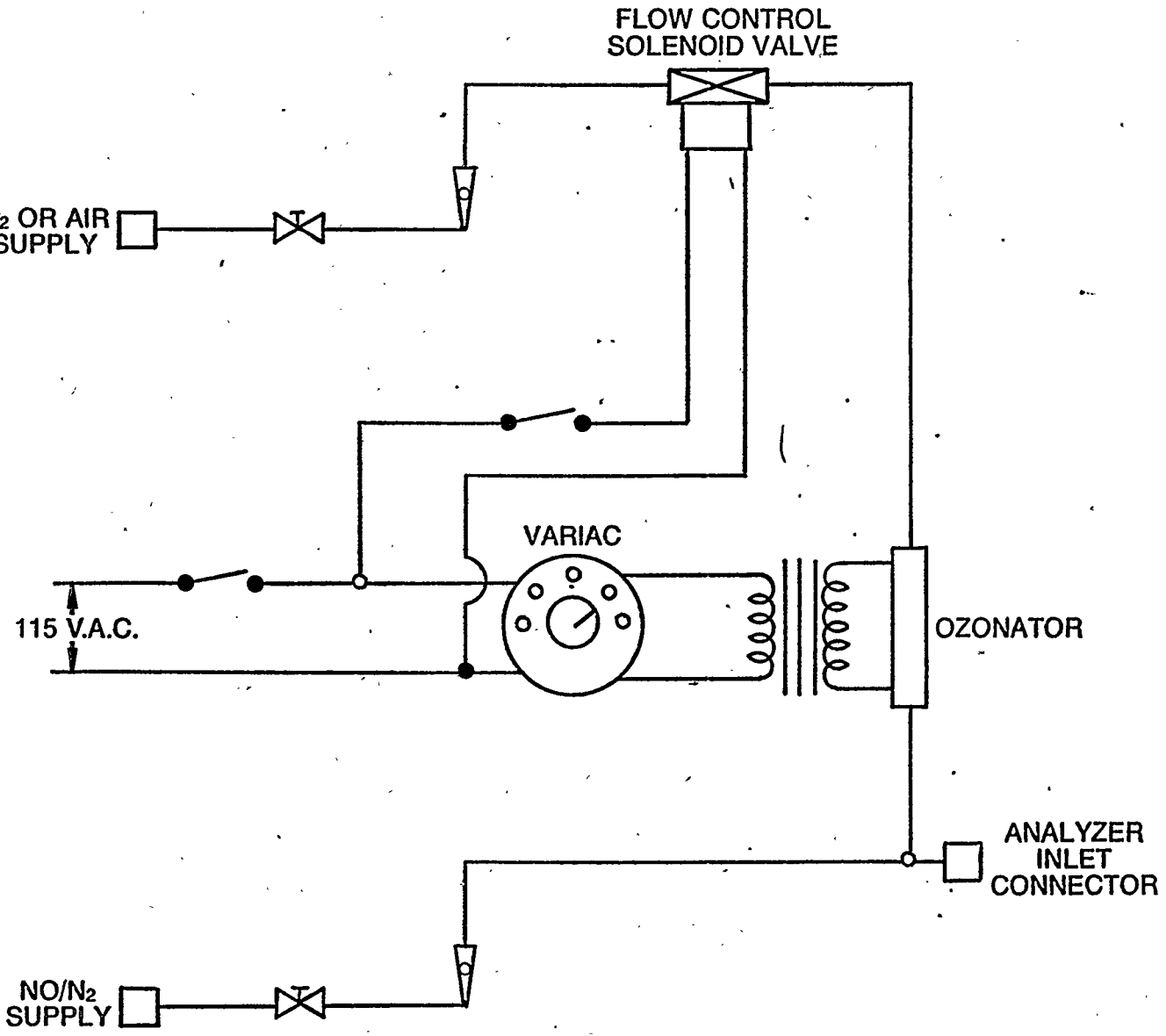


(SEE FIG. N84-5 FOR SYMBOL LEGEND)

FIGURE N84-9 — $NO_x$ CONVERTER EFFICIENCY DETECTOR

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(5) With the oxides of nitrogen analyzer in the NO mode, record the concentration of NO indicated by the analyzer.

(6) Turn on the $NO_x$ generator $O_2$ (or air) supply and adjust the $O_2$ (or air) flow rate so that the NO indicated by the analyzer is about 10 percent less than indicated in paragraph (a)(5) of this section. Record the concentration of NO in this $NO + O_2$ mixture.

(7) Switch the $NO_x$ generator to the generation mode and adjust the generation rate so that the NO measured on the analyzer is 20 percent of that measured in paragraph (a)(5) of this section. There must be at least 10 percent unreacted NO at this point. Record the concentration of residual NO.

(8) Switch the oxides of nitrogen analyzer to the $NO_x$ mode and measure total $NO_x$. Record this value.

(9) Switch off the $NO_x$ generator but maintain gas flow through the system. The oxides of nitrogen analyzer will indicate the $NO_x$ in the $NO + O_2$ mixture. Record this value.

(10) Turn of the $NO_x$ generator $O_2$ (or air) supply. The analyzer will now indicate the $NO_x$ in the original NO in $N_2$ mixture. This value should be no more than 5 percent above the value indicated in paragraph (a)(4) of this section.

(11) Calculate the efficiency of the $NO_x$ converter by substituting the concentrations obtained into the following equation:

$$\text{Percent efficiency} = \left[1 + \left(\frac{a-b}{c-d}\right)\right] \times 100$$

Where:

a=concentration obtained in paragraph (a)(8),

b=concentration obtained in paragraph (a)(9),

c=concentration obtained in paragraph (a)(6),

d=concentration obtained in paragraph (a)(7).

If converter efficiency is not greater than 90% corrective action will be required.

(b) *Initial and periodic calibration.* Prior to its introduction into service and monthly thereafter the chemiluminescent oxides of nitrogen analyzer shall be calibrated on all normally used instrument ranges. Use the same flow rate as when analyzing samples. Proceed as follows:

(1) Adjust analyzer to optimize performance.

(2) Zero the oxides of nitrogen analyzer with zero-grade air or zero-grade nitrogen.

(3) Calibrate on each normally used operating range with NO in $N_2$ calibration gases with nominal concentrations of 15, 30, 45, 60, 75 and 90 percent of that range. For each range calibrated, if the deviation from a least-squares best-fit straight line is 2% or less of the value at each data point, concentration values may be calculated by use of a single calibration factor for that range. If the deviation exceeds 2% at any point, the best-fit non-linear equation which represents the data to within 2% of each test point shall be used to determine concentration.

(c) The initial and periodic interferences, system check, and calibration test procedures specified in 40 CFR Part 86 may be used in lieu of the procedures specified in this section.

**§ 86.1324-84 Carbon dioxide analyzer calibration.**

Prior to its introduction into service and monthly thereafter the NDIR carbon dioxide analyzer shall be calibrated as follows:

(a) Follow the manufacturer's instructions for instrument start-up and operation. Adjust the analyzer to optimize performance.

(b) Zero the carbon dioxide analyzer with either zero-grade air or zero-grade nitrogen.

(c) Calibrate on each normally used operating range with carbon dioxide in $N_2$ calibration gases having nominal concentrations of 15, 30, 45, 60, 75, and 90 percent of that range. Additional calibration points may be generated. For each range calibrated, if the deviation from a least-squares best-fit straight line is 2 percent of less of the value at each data point, concentration values may be calculated by use of a single calibration factor for that range. If the deviation exceeds 2 percent at any point, the best-fit non-linear equation which represents the data to within 2% of each test point shall be used to determine concentration.

(d) The initial and periodic interferences, system check, and calibration test procedures specified in 40 CFR Part 86 may used in lieu of the procedures in this section.

**§ 86.1325-84 [Reserved]**

**§ 86.1326-84 Calibration of other equipment.**

Other test equipment used for testing shall be calibrated as often as required by the manufacturer or as necessary according to good practice.

**§ 86.1327-84 Engine dynamometer test procedures; overview.**

(a) The engine dynamometer test procedure is designed to determine the brake-specific emissions of hydrocarbons, carbon monoxide, and oxides of nitrogen. The test procedure consists of a "cold" start test following either natural or forced cool-down periods described in § 86.1334-84 and § 86.1335-84 respectively. A "hot" start test follows the "cold" start test after a hot soak of 20 minutes. The idle test of Subpart P may be run after the "hot" start test. The exhaust emissions are diluted with ambient air and a continuous proportional sample is collected for analysis during the cold and hot start tests. The composite samples collected are analyzed either in bags or continuously for hydrocarbons (HC), carbon monoxide (CO), carbon dioxide ($CO_2$), and oxides of nitrogen ($NO_x$). A parallel sample of the dilution air is similarly analyzed for hydrocarbon, carbon monoxide, carbon dioxide, and oxides of nitrogen.

(b) Engine torque and rpm shall be recorded continuously during both the cold and hot start tests. Data points shall be recorded at least once every second.

(c) Using the torque and rpm feedback signals, the brake horsepower is integrated with respect to time for the cold and hot cycles. This produces a brake horsepower-hour value that enables the brake-specific emissions to be determined (see § 86.1342-84, Calculations; exhaust emissions).

(d)(1) When an engine is tested for exhaust emissions or is operated for service accumulation on an engine dynamometer, the complete engine shall be tested, with all emission control devices installed and functioning.

(2) Evaporative emission controls need not be connected if data are provided to show that normal operating conditions are maintained in the engine induction system.

(3) On air cooled engines, the fan shall be installed.

(4) Additional accessories (e.g., oil cooler, alternators, air compressors, etc.) may be installed with advance approval by the Administrator.

(5) The engine must be equipped with a production type starter.

(e) Means of engine cooling which will maintain the engine operating temperatures (e.g., intake air, oil, water, etc.) at approximately the same temperature as specified by the manufacturer shall be used. Auxiliary fan(s) may be used to maintain engine cooling during operation on the dynamometer.

(f) *Exhaust system.* (1) A chassis-type exhaust system shall be used. The exhaust system shall meet the following requirements:

(i) For all catalyst systems, the distance from the exhaust manifold flange(s) to the catalyst shall be the same as in the vehicle configuration unless the manufacturer provides data

showing equivalent performance at another location.

(ii) The exhaust back pressure or restriction shall be typical of those seen in the actual vehicle exhaust system configuration.

**§§ 86.1328-84–86.1329-84 [Reserved]**

**§ 86.1330-84 Test sequence, general requirements.**

(a) The test sequence shown in Figure N84–10 shows the major steps encountered as the test engine undergoes the procedures subsequently described.

(b) The average temperature of the engine intake air and CVS dilution air shall be maintained at 25° C±5° C (77° F±9° F) throughout the test sequence. Engines with auxiliary emission control devices which are temperature dependent (e.g., chokes, air cleaner, hot air doors, etc.) shall be tested at an average ambient test cell temperature of 25° C±5° C throughout the test sequence, except as noted in § 86.1335–84.

(c) No control of ambient or CVS dilution air humidity is required. Engine intake air humidity shall not exceed 90 grains of water per pound of dry air.

(d) The idle test of Subpart P may be run after completion of the hot start exhaust emission test, if applicable.

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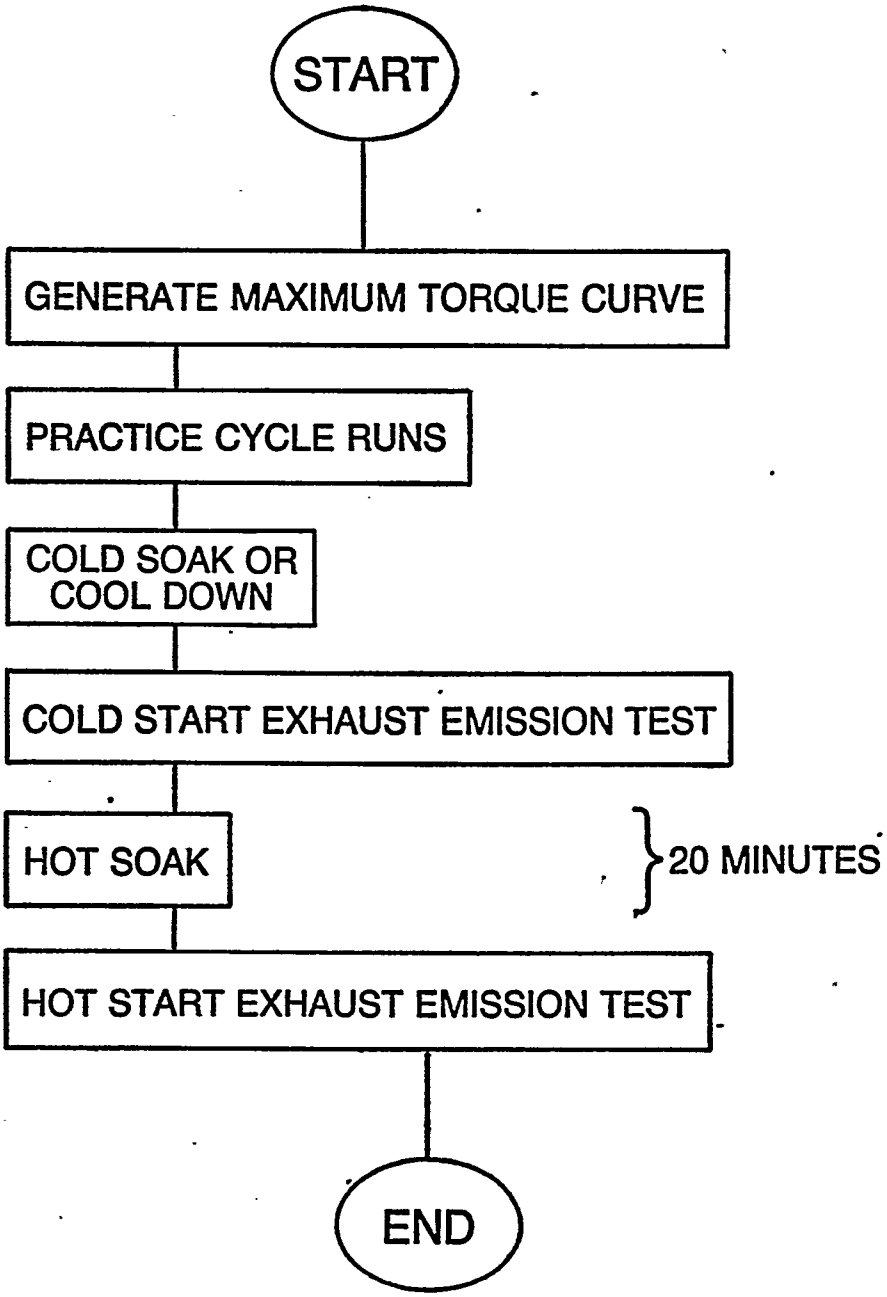


FIGURE N84-10—TEST SEQUENCE

BILLING CODE 6560-01-C

(e) The barometric pressure observed during the generation of the maximum torque curve shall not deviate more than 1 in. Hg from the value measured at the beginning of the map. The barometric pressure observed during the exhaust emission test shall not deviate more than 1 in. Hg from the value measured at the beginning of the emission test. The average barometric pressure observed during the exhaust emission test must be within 1 in. Hg of the average observed during the maximum torque curve generation.

(f) *Diesel Engines only.* Air inlet and exhaust restrictions shall be set to represent the average restrictions which would be seen in use in a representative application. Inlet depression and exhaust backpressure shall be set with the engine operating at maximum horsepower.

**§ 86.1331-84 [Reserved]**

**§ 86.1332-84 Engine mapping procedures.**

(a) Mount test engine on the engine dynamometer.

(b) Determine minimum mapping speed.

(1) *Gasoline-fueled engines.* The minimum mapping speed shall be calculated from the following equations:

(i) Minimum Speed=Curb Idle RPM−200 RPM; or

(ii) Minimum Speed=400 RPM, whichever is greater.

(2) *Diesel-engines.* The minimum mapping speed shall be calculated from the following equations:

(i) Minimum Speed=Low Idle RPM−200 RPM; or

(ii) Minimum Speed=400 RPM, whichever is greater.

(c) Determine maximum mapping speed.

(1) *Gasoline-fueled.* (i) For ungoverned engines the maximum mapping speed shall be calculated from the following equations:

$$\text{Maximum Speed} = \text{Curb Idle RPM} + \frac{115\ (\text{Measured rated RPM} - \text{Curb Idle RPM})}{100}$$

(ii) For governed engines the maximum mapped speed shall be either that speed at which the wide open throttle torque drops off to zero, or the maximum speed as calculated for ungoverned engines, whichever is smaller.

(2) *Diesel-engines.* (i) For ungoverned engines the maximum mapping speed shall be calculated from the following equation:

$$\text{Maximum Speed} = \text{Curb Idle RPM} + \frac{113\ (\text{Measured rated RPM} - \text{Curb Idle RPM})}{100}$$

(ii) For governed engines the maximum mapping speed shall be either that speed at which wide open throttle torque drops off to zero, or the maximum speed as calculated for ungoverned engines, whichever is smaller.

(d) Determine maximum torque curve (i.e., map the engine).

(1) During engine warm-up, the engine may be operated such that a preliminary estimate of measured rated speed can be made.

(2) *Gasoline-fueled engines.* (i) Start the engine and operate at zero load in accordance with the manufacturer's start-up and warm-up procedures for 1 minute ±30 seconds.

(ii) Operate the engine at a torque equivalent to 10±3 percent of the most recent determination of maximum torque for 4 minutes ±30 seconds at 2,000 rpm.

(iii) Operate the engine at a torque equivalent to 55±5 percent of the most recent determination of maximum torque for 35 minutes ±1 minute at 2,000 rpm.

(iv) Operate the engine at idle.

(v) Operate the throttle fully.

(vi) While still maintaining wide-open throttle and full-load obtain minimum engine speed. Maintain minimum engine speed for 15 seconds. Record the average torque during the last 5 seconds.

(vii) In no greater than 100 RPM increments, determine the maximum torque curve from minimum speed to maximum speed. Hold each test point for 15 seconds and record the average torque over the last 5 seconds.

(viii) *Alternate mapping technique.* In place of paragraph (d)(2)(vi) and (vii) of this section, a continual sweep of RPM is allowed. While operating at wide open throttle, the engine speed is increased at a constant 8 RPM/second (± 1 RPM/second) from minimum speed to maximum speed. Speed and torque points shall be recorded at a sample rate of at least one point per second.

(ix) Recalculate minimum and maximum speeds per paragraph (b)(1) and (c)(1)(i) or (ii) of this section using the measured rated speed derived from the new maximum torque curve. If either of the new minimum or maximum speeds lay outside the range of speeds encompassed by the actual map, then the map shall be considered void. The entire mapping procedure shall be repeated, using the newly derived measured rated speed in all calculations.

(3) *Diesel engines.* (i) Start the engine and operate at free idle for 2 to 3 minutes.

(ii) Operate the engine at approximately 50 percent power at the peak torque speed for 5 to 7 minutes.

(iii) Operate the engine at rated speed and wide open throttle for 25 to 30 minutes.

(iv) *Option.* It is permitted to precondition the engine at rated speed and maximum horsepower until the oil and water temperatures are stabilized. The temperatures are defined as stabilized if they are maintained within 2 percent of point for 2 minutes. The engine must be operated a minimum of 10 minutes for this option. This optional procedure may be substituted for paragraph (d)(3)(iii).

(v) Unload the engine and operate at the low idle speed.

(vi) Operate the engine at wide open throttle and minimum engine speed. Increase the engine speed at a constant rate of 8 RPM/second (± 1 RPM/second) from minimum to maximum speed. Engine speed and torque points shall be recorded at a sample rate of at least one point per second.

(vii) Recalculate minimum and maximum speeds per paragraphs (b)(2) and (c)(2)(i) or (ii) of this section using the measured rated speed derived from the new maximum torque curve. If either of the new minimum or maximum speeds lay outside the range of speeds eccompassed by the actual map, then the map shall be considered void. The entire mapping procedure shall be repeated, using the newly derived measured rated speed in all calculations.

(e) Mapping curve generation.

(1) *Gasoline-fueled engines.* (i) Fit all data points recorded under paragraph (d)(2)(vi) and (vii) of this section (100 RPM increments) with a cubic spline technique.

(ii) All points generated under the continuous RPM sweep by paragraph (d)(2)(vi) and (viii) shall be connected by linear interpolation between points.

(iii) For governed engines, all points above the maximum speed (see paragraph (c)(1)(ii) of this section) shall be assigned maximum torgue values of zero for purposes of cycle generation.

(iv) For all engines, all speed points below 400 RPM shall be assigned a maximum torque value equal to that

observed at 400 RPM for purposes of cycle generation.

(v) The torque curve resulting from paragraph (c)(1)(i) through (iv) of this section is the mapping curve and will be used to convert the normalized torque values in the engine cycle (see Appendix I, f) to actual torque values for the test cycle.

(2) *Diesel-engines.* (i) Connect all data points recorded under paragraph (d)(3)(vi) and (vii) of this section using linear interpolation between points.

(ii) For governed engines, all points above the maximum speed (see paragraph (c)(2)(ii) of this section) shall be assigned maximum torque values of zero for purposes of cycle generation.

(iii) For all engines, all speed points below 400 RPM shall be assigned a maximum torque value equal to that observed at 400 RPM for purposes of cycle generation.

(iv) The torque curve resulting from paragraph (c)(2) (i) through (iii) of this section is the mapping curve and will be used to convert the normalized torque values in the engine cycle (see Appendix I, g) into actual torque values for the test cycle.

(f) Alternate mapping and mapping curve generation techniques.

(i) If a manufacturer believes that the above mapping techniques are unsafe or unrepresentative for any given engine or engine family, alternate mapping techniques may be used. Alternate techniques may be used only if approved in advance by the Administrator, and only if the Administrator judges the change to be justified, and the alternate procedure to be technically correct.

**§ 86.1333-84 Transient test cycle generation.**

(a) The heavy-duty transient engine cycles for gasoline- and diesel-fueled engines are listed in Appendix I (f and g). These second-by-second listings are designed to represent transient torque and RPM maneuvers characteristic of heavy-duty vehicles. Both RPM and torque are normalized in these listings.

(i) To unnormalize RPM use the following equation:

$$\text{Actual RPM} = \frac{\%\text{RPM (Measured rated RPM} - \text{Curb idle RPM)}}{100} + \text{Curb idle RPM}$$

(Curb idle for diesel engines is defined as the low idle RPM.)

(ii) Torque is normalized to the maximum torque at the RPM listed with it. Therefore, to unnormalize the torque values in the cycle, the maximum torque curve for the engine in question must be used. The generation of the maximum torque curve is described in § 86.1332-84.

(b) *Example of the unnormalization procedure. The following test point shall be unnormalized:*

| %RPM | % Torque |
|---|---|
| 43 | 82 |

The test engines have these values:

Measured Rated RPM = 3800 (Does not appear on given torque curve.)

Curb Idle RPM = 600.

Maximum torque curve as illustrated in Figure N84-11.

*Calculate actual RPM:*

$$\text{Actual RPM} = \frac{\%\text{RPM (measured rated RPM} - \text{idle RPM)}}{100} + \text{idle RPM}$$

$$\text{Actual RPM} = \frac{43\ (3800-600)}{100} + 600$$

Actual RPM = 1976

*Determine actual torque:*

Determine the maximum torque at 1976 RPM from Figure N84-11. Then multiply this value (358 ft-lb) by 0.82. This results in an actual torque of 294 ft-lbs.

(c) Engine speed and torque shall be recorded at least once every second during the cold start test and hot start test. The torque and RPM feedback signals may be electrically filtered.

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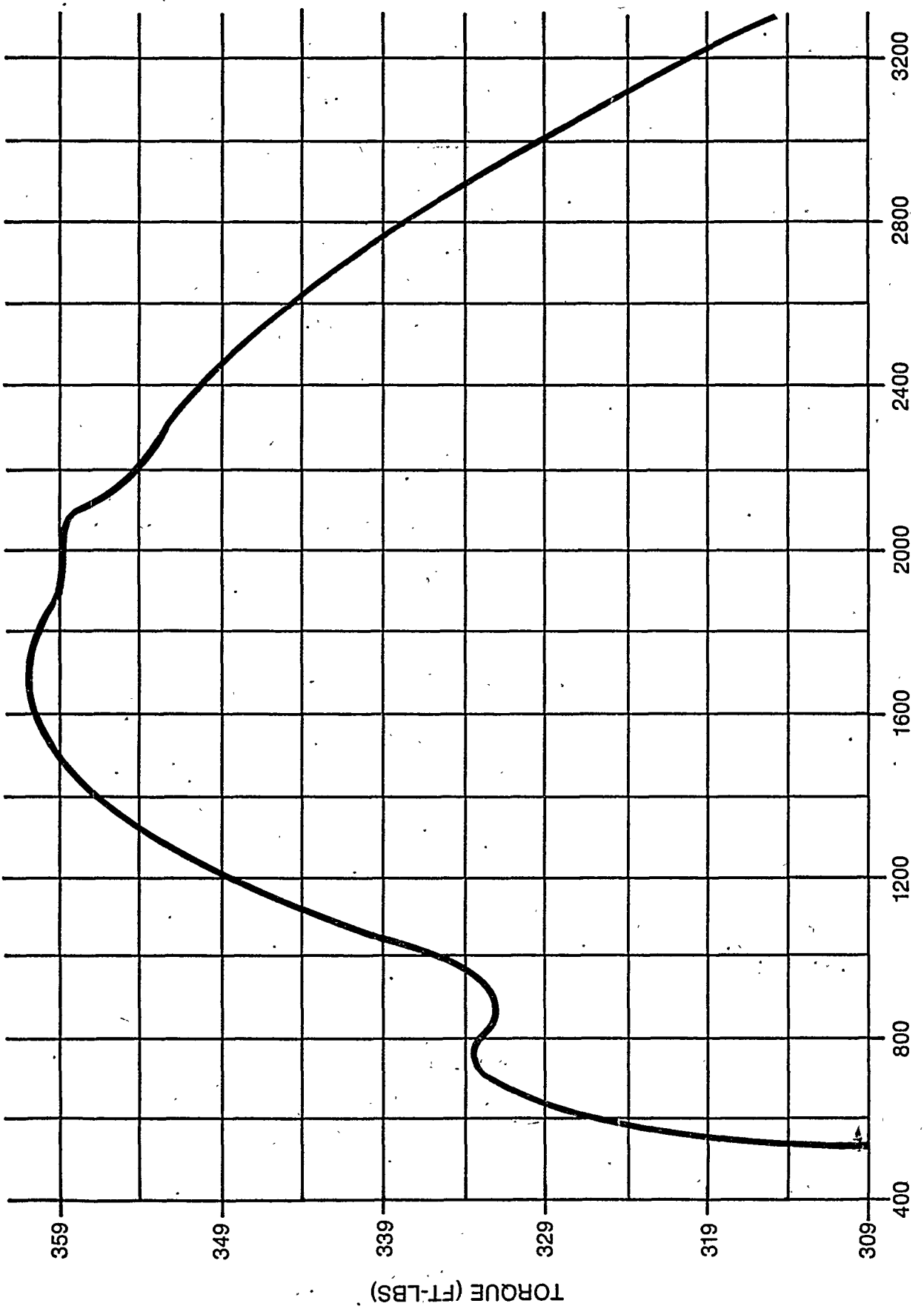


FIGURE N84-11 — SAMPLE MAXIMUM TORQUE CURVE FOR A GASOLINE-FUELED ENGINE.

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(d) *Gasoline-fueled engines.* The zero percent speed specified in the gasoline-fueled engine cycle (Appendix I (f)) shall be superseded by proper operation of the engine's automatic choke.

(1) During automatic choke operation a manual transmission engine shall be allowed to idle at whatever speed is required to produce a feedback torque of 0 ft-lbs ± 10 ft-lbs (using for example clutch disengagement, speed to torque control switching, software overrides, etc.) at those points in Appendix I where both reference speed and reference torque are zero percent values.

(2) During automatic choke operation an automatic transmission engine shall be allowed to idle at whatever speed is required to produce a feedback torque of CITT ft-lbs ± 10 ft-lbs (see (e)(2) of this section for definition of CITT) at those points in Appendix I where both reference speed and reference torque are zero percent values.

(3) This automatic choke high idle allowance is permitted only for the first 150 seconds of the cold cycle and the first 30 seconds of the hot cycle, after which the cycles shall be run as specified in Appendix I (f). (See 86.1341-84 for allowances in the cycle validation criteria.)

(e) *Automatic Transmissions.* The reference cycles Appendix I (f and g) shall be altered for engines intended for use with automatic transmissions.

(1) Zero percent speed for automatic transmission engines is defined as curb idle RPM, i.e., in-vehicle, coupled with automatic transmission in gear.

(2) All zero-percent speed, zero-percent torque points (idle points) shall be modified to zero percent speed, $x$ percent torque. Using the manufacturers' specified curb idle transmission torque (CITT), the maximum torque available at the curb idle (i.e., with transmission) RPM as determined from the maximum torque curve generated in § 86.1332-84 $x$ percent torque is defined per the following equation:

$$x\% = \frac{\text{CITT} \times 100}{\text{Maximum torque at curb idle RPM}}$$

**§ 86.1334-84 Pre-test engine and dynamometer preparation.**

(a) *Control system calibration.* (1) Before the cold soak or cool down, final calibration of the dynamometer and throttle control systems may be performed. These calibrations may consist of steady-state operation and/or actual practice cycle runs, but emissions may not be measured.

(2) Following any practice runs or calibration procedures, the engine shall be turned off and allowed to either cold soak at 60° to 86° F for a minimum of 12 hours, or be cooled per § 86.1335-84.

**§ 86.1335-84 Optional forced cool-down procedure.**

(a) This forced cool-down procedure applies to both gasoline and diesel-fueled engines.

(b) No substances or fluids may be applied to the engines internal or external surfaces except for water and air, and only as prescribed in paragraph (c) and (d) of this section.

(c) For water-cooled engines two types of cooling are permitted.

(1) Water may be circulated through the engine's water coolant system.

(i) The cooling water may be flowed in either direction and at any desired flow rate. The thermostat may be removed or blocked open during the cool down but must be restored before the exhaust emissions test begins.

(ii) The temperature of the circulated or injected water shall be between 10° C (50° F) and 30° C (86° F).

(iii) No fluid except water and no fluid or substance in solution with water is permitted. This does not preclude the use of a building's standard water supply for forced cool-down purposes.

(2) Flows of air may be directed at the exterior of the engine.

(i) Air shall be directed uniformly over the entire exterior surface of the engine at any desired flow rate.

(ii) The temperature of the cooling air shall not exceed 30° C (86° F). This is the only occasion when test cell ambient air temperature may deviate from the general specifications set forth in § 86.1330-84(b), i.e., may be less than 20° C (68° F).

(d) For air-cooled engines only cooling as prescribed in paragraph (c)(2) of this section is permitted.

(e) The cold cycle exhaust emission test may begin after a forced cool down only when the engine oil temperature as measured at the dipstick is between 20° C and 24° C (68° F and 75° F). No engine oil change is permitted during the test sequence, nor is any direct or indirect cooling of engine oil permitted except by natural conduction and convection associated with the procedures in paragraph (c) and (d) of this section.

(f) The cold cycle exhaust emission test for gasoline engines equipped with catalytic converters may begin after a forced cool down only when the catalyst bed temperature at the catalyst outlet is 25° C ± 5° C (77° F ± 9° F), in addition to the temperature restriction in paragraph (e) of this section.

(1) Catalyst cool down may be accomplished in whatever manner and using whatever coolant deemed appropriate by proper engineering judgment. The catalyst, engine, and exhaust piping configurations shall not be separated, altered, or moved in any way during the cool down.

(g) At the completion of the forced cool down, all general requirements specified in § 86.1330-84 and the oil temperature specification set forth in paragraph (e) of this section must be met before the cold cycle exhaust emission test may begin.

**§ 86.1336-84 Engine starting and restarting.**

(a) *Gasoline-fueled engines.* This paragraph applies to gasoline-fueled engines only.

(1) The engine shall be started with a production engine starter motor according to the manufacturer's recommended starting procedures in the owner's manual. The 24±1 second free idle period shall begin when the engine starts.

(2) *Choke operation:* (i) Engines equipped with automatic chokes shall be operated according to the manufacturer's operating instructions in the owner's manual, including choke setting and "kick-down" from cold fast idle.

(ii) Engines equipped with manual chokes shall be operated according to the manufacturer's operating instructions in the owner's manual.

(3) The operator may use the choke, throttle, etc. where necessary to keep the engine running.

(4) If the manufacturer's operating instructions in the owner's manual do not specify a warm engine starting procedure, the engine (automatic- and manual-choke engines) shall be started by depressing the throttle half way and cranking the engine until it starts.

(b) *Diesel engines.* The engine shall be started with a production engine starting-motor according to the manufacturer's recommended starting procedures in the owner's manual. The 24±1 second free idle period shall begin when the engine starts.

(c)(1) If the engine does not start after 15 seconds of cranking, cranking shall cease and the reason for failure to start shall be determined. The gas flow measuring device (or revolution counter) on the constant volume sampler (and the hydrocarbon integrator when testing diesel vehicles, see § 86.1337, Engine dynamometer test run) shall be turned off during this diagnostic period. In addition, either the CVS should be turned off or the exhaust tube disconnected from the tailpipe during the diagnostic period. If failure to start is an operational error, the engine shall be rescheduled for testing from a cold start.

(2) If longer cranking times are recommended to the ultimate purchaser, such cranking times may be used provided the owner's manual and the service repair manual indicate the longer cranking times are normal, and if the use of the longer cranking times is approved in advance by the Administrator.

(3) If a failure to start occurs during the cold portion of the test and is caused by an engine malfunction, corrective action of less than 30 minutes duration may be taken (according to § 86.084–25), and the test continued. The sampling system shall be reactivated at the same time cranking begins. When the engine starts, the timing sequence shall begin. If failure to start is caused by engine malfunction and the engine cannot be started, the test shall be voided and corrective action may be taken according to § 86.084–25. The reasons for the malfunction (if determined) and the corrective action taken shall be reported to the Administrator.

(4) If a failure to start occurs during the hot start portion of the test and is caused by engine malfunction, the engine must be started within one minute of key on. The sampling system shall be reactivated at the same time cranking begins. When the engine starts, the transient engine cycle timing sequence shall begin. If the engine cannot be started within one minute of key on, the test shall be voided, corrective action taken (according to § 86.084–25), and the engine rescheduled for testing. The reason for the malfunction (if determined) and the corrective action taken shall be reported to the Administrator.

(d) If the engine "false starts", the operator shall repeat the recommended starting procedure (such as resetting the choke, etc.).

(e) *Engine stalling.* (1) If the engine stalls during the initial idle period of either the cold or hot start test, the engine shall be restarted immediately using the appropriate cold or hot starting procedure and the test continued. If the engine cannot be started before the first non-idle record of the cycle, the test shall be voided.

(2) If the engine stalls anywhere in the cold cycle, except in the initial idle period, the test shall be voided.

(3) If the engine stalls on the hot cycle portion of the test at any time up to and including 580 seconds into the hot cycle, the engine may be shut off and resoaked for 20 minutes. The hot cycle may then be rerun. Any stalling of the engine or voiding of the hot cycle more than 580 seconds into the hot cycle shall result in a void test. Only one hot start resoak and restart is permitted.

**§ 86.1337–84 Engine dynamometer test run.**

(a) The following steps shall be taken for each test:

(1) Prepare the engine, dynamometer, and sampling system for the cold start test. Change filters, etc. and leak check as necessary.

(2) Connect evacuated sample collection bags to the dilute exhaust and dilution air sample collection systems.

(3) Start the CVS (if not already on), the sample pumps, the temperature recorder, the engine cooling fan(s) and any data collection system (i.e., chart recorders, computers, data loggers, etc). The heat exchanger of the constant volume sampler (if used) and the heated components of any continuous sampling system(s) (if applicable) shall be preheated to their respective operating termperatures before the test begins. See § 86.1304–84(e) for continuous sampling procedures.

(4) Adjust the sample flow rates to the desired flow rate and set the CVS gas flow measuring devices to zero.

Note.—CFV–CVS sample flow rate is fixed by the venturi design.

(5) Attach the CVS flexible exhaust tube to engine tailpipe(s).

(6) Follow the manufacturer's choke and throttle instructions for cold starting. Simultaneously start the engine and begin exhaust and dilution air sampling. For diesel engines, turn on the hydrocarbon and continuous $NO_x$, CO, or $CO_2$ (if used) analyzer(s) system integrator(s) and indicate the start of the test on the data collection medium (i.e., mark the chart on a chart recorder, set a byte on a computer or data logger, etc.).

(7) As soon as it is determined that the engine is started, start a "free idle" timer.

(8) Allow the engine to idle freely with no-load for 24±1 seconds. This idle period for automatic transmission engines may be interpreted as an idle speed in neutral or park. All other idle conditions shall be interpreted as an idle speed in gear. It is permissible to lug the engine down to curb idle speed during the last 8 seconds of the free idle period for the purpose of engaging dynamometer control loops.

(9) Begin the transient engine cycles such that the first non-idle record of the cycle occurs at 25±1 seconds. The free idle time is included in the 25±1 seconds.

(10) On the last record of the cycle cease sampling, immediately turn the engine off, and start a hot soak timer.

(11) Immediately after the engine is turned off, turn off the engine cooling fan(s) if used, and the CVS blower. As soon as possible transfer the "cold start cycle" exhaust and dilution air bag samples to the analytical system and process the samples according to § 83.1340–84 obtaining a stabilized reading of the exhaust sample on all analyzers within 20 minutes of the end of the sample collection phase of the test.

(12) Allow the engine to soak for 20±1 minutes.

(13) Prepare the engine and dynamometer for the hot start test.

(14) Connect evacuated sample collection bags to the dilute exhaust and dilution air sample collection systems.

(15) Start the CVS (if not already on), the sample pumps, the temperature recorder, the engine cooling fan(s) and any data collection system (i.e., chart recorders, computers, data loggers, etc.). The heat exchanger of the constant volume sampler (if used) and the heated components of any continuous sampling system(s) (if applicable) shall be preheated to their respective operating temperatures before the test begins. See § 86.1340–84(e) for continuous sampling procedures.

(16) Adjust the sample flow rates to the desired flow rate and set the CVS gas flow measuring devices to zero.

Note.—CFV–CVS sample flow rate is fixed by the venturi design.

(17) Follow the manufacturer's choke and throttle instruction for hot starting. Simultaneously start the engine and begin exhaust and dilution air sampling.

(18) As soon as it is determined that the engine is started, start a "free idle" timer.

(19) Allow the engine to idle freely with no-load for 24±1 seconds. The provisions and interpretations of paragraph (a)(8) of this section apply.

(20) Begin the transient engine cycle such that the first non-idle record of the cycle occurs at 25±1 seconds. The free idle is included in the 25±1 seconds.

(21) On the last record of the cycle cease sampling.

(22) As soon as possible transfer the "hot start cycle" exhaust and dilution air bag samples to the analytical system and process the samples according to § 86.1340–84 obtaining a stabilized reading of the exhaust sample on all analyzers within 20 minutes of the end of the sample collection phase of the test.

(23) The CVS and the engine may be turned off, if desired.

(b) The procedure in paragraph (a) of this section is designed for one sample bag for the cold start portion and one for the hot start portion. It is permissible to use 4 sample bags per test portion. The bags shall sample for the portion of the cycle as indicated below:

| | Sample time | |
|---|---|---|
| | Gasoline fueled | Diesel |
| Bag No.: | | |
| 1 | 272 | 297 |
| 2 | 579 | 597 |
| 3 | 895 | 902 |
| 4 | 1,167 | 1,199 |

**§ 86.1338-84 Emission measurement accuracy.**

(a) Measurement accuracy for analysis systems used for bag measurements.

(1) Good engineering practice would dictate that analyzer readings below 15 percent of full scale chart deflection should generally not be used.

(2) Some high resolution read-out systems such as computers, data loggers, etc., can provide sufficient accuracy and resolution below 15 percent of full scale. Such systems may be used provided that additional calibration bottles are added to insure that the calibration curves below 15 percent of full scale, in the region of the sample measurements, conforms to the accuracy specifications in § 86.1316–84 through § 86.1326–84.

(b) Measurement accuracy for analysis systems used for continuous measurement systems.

(1) Analyzers used for continuous analysis must be operated such that the integrated concentration value over the test cycle falls between 15 and 100 percent of full scale chart deflection. Exceptions to these limits are:

(i) If automatic range change circuitry is used and the limits for range changes are between 15 and 100 percent of full-scale chart deflection; or

(ii) Alternative paragraph (a)(2) of this section is used to insure that the accuracy of the calibration curve is maintained below 15 percent. In addition,

(iii) The analyzer's response may be less than 15 percent of full scale if the full-scale value is 155 ppmC or less.

(iv) The analyzer's response may be less than 15 percent of full scale if the emissions from the engine are erratic and the integrated chart deflection value is greater than 15 percent of full scale.

(v) The analyzer's response may be less than 15 percent of full scale if the contribution of all data read below the 15 percent level is less than 10 percent by mass of the final test results, and

(vi) During engine start-up the HC analyzer is allowed to "spike" off-scale for a maximum of 5 seconds.

**§ 86.1339-84 [Reserved]**

**§ 86.1340 Exhaust sample analysis.**

(a) The analyzer response may be read by automatic data collection (ADC) equipment such as computers, data loggers, etc. If ADC equipment is used the following is required.

(1) For bag analysis the analyzer response must be stable at greater than 99 percent of final reading. A single value representing the average chart deflection over a 10 second stabilized period may be stored.

(2) For continuous analysis systems, the ADC system must store at least 5 chart deflection readings per second.

(3) The chart deflections in paragraphs (a) (1) and (2) of this section may be stored on long term computer storage devices such as computer tapes, storage discs, punch cards, or they may be printed in a listing for storage. In either case a chart recorder is not required and records from a chart recorder, if they exist, need not be stored.

(4) If the data from ADC equipment is used as permanent records, the ADC equipment and the analyzer values as interpreted by the ADC equipment are subject to the calibration specifications in §§ 86.1316–84 through 86.1326–84, as if the ADC equipment were part of the analyzer.

(b) Data records from any one or a combination of analyzers may be stored as chart recorder records.

(c) Software zero and span.

(i) The use of "software" zero and span is permitted. The process of software zero and span refers to the technique of initially adjusting the analyzer zero and span responses to the calibration curve values, but for subsequent zero and span checks the analyzer response is simply recorded without adjusting the analyzer gain. The observed analyzer response recorded from the subsequent check is mathematically corrected back to the calibration curve values for zero and span. The same mathematical correction is then applied to the analyzer's response to a sample of exhaust gas in order to compute the true sample concentration.

(ii) The maximum amount of software zero and span mathematical correction is ±10 percent of full scale chart deflection.

(iii) Software zero and span may be used to switch between ranges without adjusting the gain of the analyzer.

(iv) The software zero and span technique may not be used to mask analyzer drift. The observed chart deflection before and after a given time period or event shall be used for computing the drift. Software zero and span may be used after the drift has been computed to mathematically adjust any span drift so that the "after" span check may be transformed into the "before" span check for the next segment.

(d) For bag sample analysis perform the following sequence:

(1) Warm up and stablize the analyzers.

(2) Clean and/or replace filter elements, conditioning columns (if used), etc., as necessary.

(3) The order of paragraphs (d) (1) and (2) of this section may be interchanged.

(4) Obtain a stable zero reading.

(5) Zero and span the analyzers with zero and span gases. The span gases shall have concentrations between 75 and 100 percent of full scale chart deflection. The flow rates and system pressures during spanning shall be approximately the same as those encountered during sampling.

(6) Re-check zero response, repeat paragraphs (d) (4) and (5) of this section or use software zero and span if necessary.

(7) If a chart recorder is used, identify the most recent zero and span response as the pre-analysis values.

(8) If ADC equipment is used, electronically record the most recent zero and span response as the pre-analysis values.

(9) Measure HC (except diesels), CO, $CO_2$ and $NO_x$ concentrations in the sample bag(s) with approximately the same flow rates and pressures used in paragraph (d)(5) of this section. Constituents measured continuously do not require bag analysis.

(10) Rechecking of the zero and span point after the analysis of the bag is permitted. The number of bags that may be analyzed after pre-analysis values for zero and span have been determined is not specified. The limiting criteria on the time span or the number of events that may occur between the pre-analysis and post-analysis zero span checks are the following:

(i) A pre-analysis zero and span value for each range of each constituent to be analyzed must be determined and identified or recorded prior to analyzing the bag. The bag may be sampled in order to identify the specific range required prior to the determination of the pre-analysis values.

(ii) A post-analysis zero and span check for each range used must be performed and the values recorded. The time interval or the number of events that may occur between the pre and post checks is not specified. However, the difference between pre-analysis zero and span values (recorded in paragraph

(d) (7) and (8) of this section) versus those recorded for the post-analysis check may not exceed the zero drift limit or the span drift limit of 2 percent of full scale chart deflection for any range used.

(iii) The time span between the pre and post checks may be no longer than the time period that was used to evaluate the analyzer drift performance.

(11) Analyze the remaining sample and background bags as outlined in paragraph (d) (4) through (10) of this section.

(e) For continuous sample analysis perform the following sequences:

(1) Warm-up and stabilize the analyzers.

(2) Clean and/or replace filters elements, conditioning columns (if used) etc., as necessary.

(3) The order of paragraphs (d) (1) and (2) of this section may be interchanged.

(4) Leak check portions of the sampling system that operate under a vacuum when sampling.

(5) Allow heated sample lines, filters, pumps, etc., to stabilize at operating temperature.

(6) The order of paragraphs (d) (4) and (5) may be interchanged.

(7) Obtain a stable zero reading.

(8) Zero and span each range to be used on each analyzer used prior to the beginning of the cold cycle. The span gases shall have a concentration between 75 and 100 percent of full scale chart deflection. The flow rates and system pressures shall be approximately the same as those encountered during sampling.

(9) Re-check zero response, repeat paragraphs (d) (7) and (8) of this section or use software zero and span if necessary.

(10) If a chart recorder is used, identify the most recent zero and span response as the pre-analysis values.

(11) If ADC equipment is used, electronically record the most recent zero and span response as the pre-analysis values.

(12) Measure the emissions (HC required for diesels, $NO_x$, CO, $CO_2$ optional) continuously during the cold start cycle. Indicate the start of the test, the range(s) used, and the end of the test on the recording medium (chart paper or ADC equipment). Use approximately the same flow rates and system pressures used in paragraph (d)(8) of this section.

(13) Collect background HC, CO, $CO_2$, and $NO_x$ in a sample bag.

(14) Perform a post-analysis zero and span check for each range used at the conditions specified in paragraph (d)(8) of this section.

(15) Neither the zero drift nor the span drift between the pre-analysis and post-analysis checks on any range used may exceed 3 percent for HC or 2 percent for $NO_x$, CO, and $CO_2$ of full scale chart deflection, or the test is void.

(16) Determine HC background levels for the cold start cycle by introducing a sample from the background bag into the overflow HC span system.

(17) Determine background levels of $NO_x$, CO, or $CO_2$ (if necessary) by the technique outlined in paragraph (e) of this section. the continuous analyzers may be used for analysis under paragraph (e).

Note.—For a quality control check on diesel HC, compare an analysis of a background bag to a continuous analysis of background air sampled through the total hydrocarbon probe. For best results, the difference should be less than 1 percent of the average (time integrated) dilute hydrocarbon emission level during the test.

(18) Repeat paragraphs (d) (7) through (17) of this section for the hot cycle. The post-analysis zero and span check for the cold start (or previous hot start) cycle may be used for the pre-analysis zero and span for the following hot start cycle.

(19) If the HC drift is greater than 3 percent of full-scale chart deflection, hydrocarbon hang-up is suspected.

(f) HC hang-up. If HC hang-up is suspected, the following sequence may be performed.

(1) Fill a clean sample bag with zero gas.

(2) Zero and span the HFID with the overflow system.

(3) Analyze the sample bag through the overflow sample system.

(4) Analyze the sample bag on another FID or HFID meeting the specification of this Subpart or 40 CFR, Subpart D that does not have a hang-up problem.

(5) If the difference between the readings obtained in (3) percent of the HFID full scale disconnect probe and clean same. (Soaking with sulfuric acid has proven effective.) Clean sample line also. (Heating to 450° F and flow nitrogen gas continuously for 12 hours has proven useful.)

(6) Reassemble the sample system, heat to specified temperature, and repeat the procedure in paragraph (f) (1) through (6) of this section.

**§ 86.1341-84 Test cycle validation criteria.**

(a) To reduce errors between the feedback and reference (cycle trace) values the engine speed and torque feedback signals may be shifted a maximum of ±5 seconds with respect to the reference speed and torque traces. If the feedback signals are shifted, both speed and torque must be shifted the same amount in the same direction.

(b) Calculate the brake horsepower for each pair of engine speed and torque values recorded. Also calculate the reference brake horsepower for each pair of engine speed and torque reference values. Calculations shall be to five significant digits.

(c) Linear regressions of feedback value on reference value shall be performed for speed, torque and brake horsepower. The method of least-square shall be used. The equation shall have the form:

$$y=mx+b$$

Where:

y=The feedback (actual) value of speed (in RPM), torque (in ft-lbs.), or brake horsepower.

m=Slope of the regression line.

x=The reference value (speed, torque, or brake horsepower).

b=The y intercept of the regression line.

(d) The standard error of estimate (SE) of y on x and the coefficient of determination ($r^2$) shall be calculated for each regression line.

(e) For a valid test the criteria in Figure N84–12 must be met for both cycles (cold start and hot start) individually. Deletions from the regression analysis are permitted where allowed in Figure N84–12.

(f) The integrated brake horsepower-hour for each cycle (cold and hot start) shall be between −15 percent and +5 percent of the integrated brake horsepower-hour for the reference cycle or the test is void. All torque and speed data points must be used to calculate the integrated brake horsepower-hour. For the purposes of this calculation, negative torque values (i.e., motoring horsepower) shall be set equal to zero and included.

(g) If a dynamometer test run is determined to be statistically or experimentally void, corrective action shall be taken. The engine shall then be allowed to cool (naturally or forced) and the dynamometer test rerun per § 86.1337–84.

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# REGRESSION LINE TOLERANCES

| | SPEED | TORQUE | BRAKE HORSEPOWER |
|---|---|---|---|
| STANDARD ERROR OF ESTIMATE (SE) OF Y ON X | 100 RPM | 13% OF MAXIMUM ENGINE TORQUE | 8% OF MAXIMUM BRAKE HORSEPOWER |
| SLOPE OF THE REGRESSION LINE, M | 0.970-1.030 | 0.83-1.03 HOT<br>0.77-1.03 COLD | 0.89-1.03 (HOT)<br>0.87-1.03 (COLD) |
| COEFFICIENT OF DETERMINATION, $R^2$ | 0.9700 1/ | 0.8800 (HOT) 1/<br>0.8500 (COLD) 1/ | 0.9100 1/ |
| Y INTERCEPT OF THE REGRESSION LINE, B | ± 50 RPM | ± 15 FT. LBS. | ± 5.0 OF BRAKE HORSEPOWER |

1/ MINIMUM

# PERMITTED POINT DELETIONS FROM REGRESSION ANALYSIS

| CONDITION | POINTS TO BE DELETED |
|---|---|
| FIRST 24 SECONDS (±1) OF FREE IDLE OF HOT AND COLD CYCLES | SPEED, TORQUE, BRAKE HORSEPOWER |
| WIDE OPEN THROTTLE { SPEED CONTROL: TORQUE FEEDBACK < TORQUE REFERENCE } | TORQUE, BRAKE HORSEPOWER |
| WIDE OPEN THROTTLE { TORQUE CONTROL: SPEED FEEDBACK < SPEED REFERENCE } | SPEED, BRAKE HORSEPOWER |
| SPEED CONTROL, CLOSED THROTTLE, TORQUE REFERENCE < ZERO | TORQUE, BRAKE HORSEPOWER |
| GASOLINE FUELED ENGINES EQUIPPED WITH AUTOMATIC CHOKES; FIRST 150 SECONDS OF COLD CYCLE OR FIRST 30 SECONDS OF HOT CYCLE, CLOSED THROTTLE AND: MANUAL TRANSMISSION, IF TORQUE FEEDBACK | |
| A. IS EQUAL TO ZERO (± 10 FT. LBS.) OR; | SPEED BRAKE HORSEPOWER |
| B. AUTOMATIC TRANSMISSION, IF TORQUE FEEDBACK IS EQUAL TO CURB IDLE TRANSMISSION TORQUE (± 10 FT. LBS.) | SPEED BRAKE HORSEPOWER |

BILLING CODE 6560-01-C

**§ 86.1342-84 Calculations; exhaust emissions.**

(a) The final reported transient emission test results shall be computed by use of the following formula:

$$A_{wm} = \frac{1/7(g_C) + 6/7(g_H)}{1/7(BHP\text{-}Hr_C) + 6/7(BHP\text{-}Hr_H)}$$

Where:

$A_{wm}$=Weighted mass emission level (HC, CO, $CO_2$ or $NO_x$) in grams per brake horsepower hour.

$g_C$=Mass emission level in grams, measured during the cold start test.

$g_H$=Mass emissions level in grams, measured during the hot start test.

$BHP\text{-}HR_C$=Total brake horsepower-hour (brake horsepower integrated with respect to time) for the cold start test.

$BHP\text{-}HR_H$=Total brake horsepower-hour (brake horsepower integrated with respect to time) for the hot start test.

(b) The mass of each pollutant for the cold start test and the hot start test for bag measurements and diesel heat exchanger sample system measurements is determined from the following equations:

(1) Hydrocarbon mass: $HC_{mass} = V_{mix} \times Density_{HC} \times (HC_{conc}/1{,}000{,}000)$.

(2) Oxides of nitrogen mass: $NO_{x\ mass} = V_{mix} \times Density_{NO_2} \times K_H \times (NO_{x\ conc}/1{,}000{,}000)$.

(3) Carbon monoxide mass: $CO_{mass} = V_{mix} \times Density_{CO} \times (CO_{conc}/1{,}000{,}000)$.

(4) Carbon dioxide mass: $CO_{2\ mass} = V_{mix} \times Density_{CO_2} \times (CO_{2\ conc}/100)$.

(c) The mass of each pollutant for the cold start test and the hot start test for flow compensated sample systems is determined from the following equations:

$$(1)\ HC_{mass} = \sum_{i=1}^{n} \left[ \frac{(HC_e)_i}{10^6} \times (Vmix)_i \times (Density_{HC}) \times \Delta T \right] - \frac{HC_d}{10^6}\left(1 - \frac{1}{DF}\right) \times Vmix \times Density_{HC}$$

$$(2)\ NOx_{mass} = \sum_{i=1}^{n} \left[ \frac{(NOx_e)_i}{10^6} \times (Vmix)_i \times (Density_{NO_2}) \times \Delta T \right] - \frac{NOx_d}{10^6}\left(1 - \frac{1}{DF}\right) \times Vmix \times Density\ NO_2$$

$$(3)\ CO_{mass} = \sum_{i=1}^{n} \left[ \frac{(CO_e)_i}{10^6} \times (Vmix)_i \times (Density_{CO}) \times \Delta T \right] - \frac{CO_d}{10^6}\left(1 - \frac{1}{DF}\right) \times Vmix \times Density_{CO}$$

$$(4)\ CO_{2mass} = \sum_{i=1}^{n} \left[ \frac{(CO_2)_i}{10^6} \times (Vmix)_i \right] \times (Density_{CO_2}) \times \Delta T - \frac{CO_{2_d}}{10^6}\left(1 - \frac{1}{DF}\right) \times Vmix \times Density_{CO_2}$$

(d) Meaning of symbols:

(1) $HC_{mass}$=Hydrocarbon emissions, in grams per test phase.

Density=Density of hydrocarbons is 16.33 g/ft³ (.5768 kg/m³), assuming an average carbon to hydrogen ratio of 1:1.85, at 68° F (20° C) and 760 mm Hg (101.3 kPa) pressure.

$HC_{conc}$=Hydrocarbon concentration of the dilute exhaust sample corrected for background, in ppm carbon equivalent, i.e., equivalent propane X3.

$HC_{conc} = HC_e - HC_d[1-(1/DF)]$

Where:

$HC_e$=Hydrocarbon concentration of the dilute exhaust bag sample or, for diesel heat exchanger systems, average hydrocarbon concentration of the dilute exhaust sample as calculated from the integrated HC traces, in ppm carbon equivalent. For flow compensated sample systems $HC_e$ is the instantaneous concentration.

$HC_d$=Hydrocarbon concentration of the dilution air as measured, in ppm carbon equivalent.

(2) $NO_{x\ mass}$=Oxides of nitrogen emissions, in grams per test phase.

$Density_{NO_2}$=Density of oxides of nitrogen is 54.16 g/ft³ (1.913 kg/m³), assuming they are in the form of nitrogen dioxide, at 68° F (20° C) and 760 mm Hg (101.3 kPa) pressure.

$NO_{x\ conc}$=Oxides of nitrogen concentration of the dilute exhaust sample corrected for background, in ppm.

$NO_{x\ conc} = NO_{x\ e} - NO_{x\ d}[1-(1/DF)]$.

Where:

$NO_{x\ e}$=Oxides of nitrogen concentration of the dilute exhaust bag sample as measured, in ppm. For flow compensated sample systems $NO_{x\ e}$ is the instantaneous concentration.

$NO_{x\ d}$=Oxides of nitrogen concentration of the dilute air as measured, in ppm.

(3) $CO_{mass}$=Carbon monoxide emissions, in grams per test phase.

$Density_{CO}$=Density of carbon monoxide is 32.97 g/ft³ (1.164 kg/m³), at 68° F (20° C) and 760 mm Hg (101.3 kPa) pressure.

$CO_{conc}$=Carbon monoxide concentration of the dilute exhaust sample corrected for background, water vapor, and $CO_2$ extraction, in ppm.

$CO_{conc} = CO_e - CO_d\ [1-(1/DF)]$.

Where:

$CO_e$=Carbon monoxide concentration of the dilute exhaust bag sample volume corrected for water vapor and carbon dioxide extraction, in ppm. For flow compensated sample systems $CO_e$ is the instantaneous concentration. The calculation assumes the carbon to hydrogen ratio of the fuel is 1:1.85.

$CO_e = [1 - 0.01925CO_{2_e} - 0.000323R]CO_{em}$.

Where:

$CO_{em}$=Carbon monoxide concentration of the dilute exhaust sample as measured, in ppm.

$CO_{2_e}$=Carbon dioxide concentration of the dilute exhaust bag sample, in percent. For flow compensated sample systems $CO_{2_e}$ is the instantaneous concentration.

R=Relative humidity of the dilution air, in percent (see § 86.1342-84(a)(5)).

$CO_d$=Carbon monoxide concentration of the dilution air corrected for water vapor extraction, in ppm.

$CO_d = (1 - 0.000323R)CO_{dm}$.

Where:

$CO_{dm}$=Carbon monoxide concentration of the dilution air sample as measured, in ppm.

$\Delta t$=Time interval (in seconds) between samples in flow compensated systems (0.2 seconds maximum).

Note.—If a CO instrument which meets the criteria specified in § 86.1311-84 is used and the conditioning column has been deleted, $CO_{em}$ can be substituted directly for $CO_e$ and $CO_{dm}$ can be substituted directly for $CO_d$.

(4) $CO_{2\ mass}$=Carbon dioxide emissions, in grams per test phase.

$Density_{CO_2}$=Density of carbon dioxide is 51.85 g/ft³ (1.843 kg/m³), at 68°F (20°C) and 760 mm Hg (101.3 kPa) pressure.

$CO_{2\ conc}$=Carbon dioxide concentration of the dilute exhaust sample corrected for background, in percent.

$CO_{2\ conc} = CO_{2_e} - CO_{2_d}[1-(1/DF)]$.

Where:

$CO_{2_d}$=Carbon dioxide concentration of the dilution air as measured, in percent.

(5) $DF = 13.4/[CO_{2_e} + (HC_e + CO_e \times 10^{-4}]$.

$K_H$=Humidity correction factor.

For gasoline engines;

$K_H = 1/[1 - 0.0047\ (H-75)]$.

(or for SI units $= 1/[1 - 0.0329(H-10.71)]$).

For diesel engines;

$K_H = 1$.

Where:

H=Absolute humidity in grains (grams) of water per pound (kilogram) of dry air.

$H = [(43.478)R_a \times P_d]/[P_B - (P_d \times R_a/100)]$ for SI units, $H = [(6.211)R_a \times P_d]/[P_B - (P_d \times R_a/100)]$.

$R_a$=Relative humidity of the ambient air, in percent.

$P_d$=Saturated vapor pressure, in mm Hg (kPa) at the ambient dry bulb temperature.
$P_B$=Barometric pressure, in mm Hg (kPa).
$V_{mix}$=Total dilute exhaust volume in cubic feet per test phase corrected to standard conditions (528° R (293° K) and 760 mm Hg (101.3 kPa).
$V_{mix}$=Instantaneous dilute exhaust volumetric flow rate (for compensated flow systems), in cubic feet per second.

For PDP–CVS, $V_{mix}$ is:

$$V_{mix} = V_o \times \frac{N(P_B - P_d)\,(528°R)}{(760\text{ mm Hg})\,(T_p)}$$

for SI units,

$$V_{mix} = V_o \times \frac{N(P_B - P_d)\,(293.15°K)}{(101.3\text{ kPa})\,(T_p)}$$

Where:

$V_o$=Volume of gas pumped by the positive displacement pump, in cubic feet (cubic metres) per revolution. This volume is dependent on the pressure differential across the positive displacement pump.

N=Number of revolutions of the positive displacement pump during the test phase while samples are being collected.
$P_B$=Barometric pressure, in mm Hg (kPa).

$P_d$=Pressure depressions below atmospheric measured at the inlet to the positive displacement pump, in mm Hg (kPa) (during an idle mode).

$T_p$=Average temperature of dilute exhaust entering positive displacement pump during test, °R (°K).

(d) Sample calculation of mass values of exhaust emissions:

(1) Assume the following test results for gasoline engine:

| | Cold start cycle test results | Hot start cycle test results |
|---|---|---|
| $V_{mix}$ | 6924 ft³ | 6873 ft³. |
| R | 30.2 pct | 30.2 pct. |
| $R_a$ | 30.2 pct | 30.2 pct. |
| $P_B$ | 735 mm Hg | 735 mm Hg. |
| $P_d$ | 22.676 mm Hg | 22.676 mm Hg. |
| $HC_e$ | 132.07 ppm C equivalent. | 86.13 ppm C equivalent. |
| $NO_{x_e}$ | 7.86 ppm | 10.98 ppm. |
| $CO_{em}$ | 171.22 ppm | 114.28 ppm. |
| $CO_{2_e}$ | .178 pct | .381 pct. |
| $HC_d$ | 3.60 ppm C equivalent. | 8.70 ppm C equivalent. |
| $NO_{x_d}$ | 0.0 ppm | 010 ppm. |
| $CO_{dm}$ | 0.89 ppm | 0.89 ppm. |
| $CO_{2_d}$ | 0.0 pct | 0.038 pct. |
| BHP-HR | 0.259 | 0.347. |

Then:

*Cold Start Test*

H=[(43.478)(30.2)[22.676)]/[735−[22.676][30.2)/100]=41 grains of water per pound of dry air.
$K_H$=1/[1−0.0047(41−75)]=0.862
$CO_e$=[1−0.01925(.178)−0 .000323(30.2)]171.22=169.0 ppm
$CO_d$=[1−0.000323(30.2)]0.89=.881 ppm
DF=13.4/[.178+(132.1+168.9)($10^{-4}$)]=64.392
$HC_{conc}$=132.1−3.6[1−(1/64.265)]=128.6 ppm
$HC_{mass}$=6924(16.33)[128.6/1,000,000)=14.53 grams
$NO_{x\ conc}$=7.86−0.0[1−(1/64.265)]=7.86 ppm
$NO_{x\ mass}$=6924(54.16)(.862)(7.86/1,000,000)=2.54 grams
$CO_{conc}$=169.0−.881[1−(1/64.265)]=168.0 ppm
$CO_{mass}$=6924(32.97)(168.0/1,000,000)=38.35 grams
$CO_{2\ conc}$=.178−0[1−1/64.265)]=.178%
$CO_{2\ mass}$=6924(51.85)[.178/100)=639 grams

*Hot Start Test*

Assume similar calculations result in the following:
$HC_{mass}$=8.72 grams
$NO_{x\ mass}$=3.49 grams
$CO_{mass}$=25.70 grams
$CO_{2\ mass}$=1226 grams

(2) Weighted mass emission results:

$$NOx_{mass} = 3.49\text{ grams}$$

$$HC_{wm} = \frac{1/7(14.53) + 6/7(8.72)}{1/7(0.259) + 6/7(0.347)}$$

$$= 28.6\text{ grams/BHP-HR}$$

$$NOx_{wm} = \frac{1/7(2.54) + 6/7(3.49)}{1/7(0.259) + 6/7(0.347)}$$

$$= 10.0\text{ grams/BHP-HR}$$

$$CO_{wm} = \frac{1/7(38.35) + 6/7(25.70)}{1/7(0.259) + 6/7(0.347)}$$

$$= 82.2\text{ grams/BHP-HR}$$

$$CO_{2wm} = \frac{1/7(639) + 6/7(1226)}{1/7(0.259) + 6/7(0.347)}$$

$$= 3415\text{ grams/BHP-HR}$$

(e) The final reported brake-specific fuel consumption (BSFC) shall be computed by use of the following formula:

$$BSFC = \frac{1/7(M_C) + 6/7(M_H)}{1/7(BHP\text{-}HR_C) + 6/7(BHP\text{-}HR_H)}$$

Where:
BSFC=brake-specific fuel consumption in pounds of fuel per brake horsepower-hour (lbs/BHP-HR).
$M_C$=mass of fuel, in pounds, used by the engine during the cold start test.
$M_H$=mass of fuel, in pounds, used by the engine during the hot start test.
$BHP\text{-}HR_C$=total brake horsepower-hours (brake horsepower integrated with respect to time) for the cold start test.
$BHP\text{-}HR_H$=total brake horsepower-hours (brake horsepower integrated with respect to time) for the hot start test.

(f) The mass of fuel for the cold start and hot start test is determined from the following equation:

$M=(G_s/R_s)\,(1/453.6)$

(g) Meaning of symbols:

M=Mass of fuel, in pounds, used by the engine during the cold or hot start test.
$G_s$=Grams of carbon measured during the cold or hot start test.
$G_s$=[12.011/(12.011+α(1.008))]$HC_{mass}$+0.429$CO_{mass}$+0.273 $CO_{2\ mass}$

Where:
$HC_{mass}$=Hydrocarbon emissions, in grams for cold or hot start test.
$CO_{mass}$=Carbon monoxide emissions, in grams for cold or hot start test.
$CO_{2\ mass}$=Carbon dioxide emissions, in grams for cold or hot start test.
α=The measured hydrogen to carbon ratio of the fuel.
$R_s$=The grams of carbon in the fuel per gram of fuel
$R_s$=12.011/[12.011+α(1.008)]

(h) Sample calculation of brake-specific fuel consumption:
(1) Assume the following test results:

| | Cold start cycle test results | Hot start cycle test results |
|---|---|---|
| BHP-HR | 6.945 | 7.078. |
| α | 1.85 | 1.85. |
| $HC_{mass}$ | 37.06 grams | 29.82 grams. |
| $CO_{mass}$ | 357.69 grams | 350.33 grams. |
| $CO_{2\ mass}$ | 5419.62 grams | 5361.32 grams. |

Then:
$G_s$ for cold start test=[12.011/(12.011+(1.85)(1.008))][37.08)+0.429(357.69)+0.273(5419.62)=1665.10 grams

$G_s$ for hot start test=[12.011/(12.011+(1.85)(1.008))](28.82)+0.429(350.33)+0.273(5361.32)=1638.88 grams
$R_2$=12.011/[12.011+1.85(1.008)]=.866
$M_c$=(1665.10/.866)(1/453.6)=4.24 lbs.
$M_H$=(1638.88/.866)(1/453.6)=4.17 lbs.

(2) Brake-specific fuel consumption results:

$$BSFC = \frac{1/7(4.24) + 6/7(4.17)}{1/7(6.945) + 6/7(7.078)}$$

$$= .592 \text{ lbs. of fuel/BHP-HR}$$

**§ 86.1343-84 [Reserved]**

**§ 86.1344-84 Required information.**

(a) The required test data shall be grouped into the following three general categories:

(1) *Engine set-up and descriptive data.* This data must be provided to the EPA supervisor of engine testing for each engine sent to the Administrator for confirmatory testing prior to the initiation of engine set-up. This data is necessary to insure that EPA test personnel have the correct data in order to set up and test the engine in a timely and proper manner. This data is not required for tests performed by the manufacturers.

(2) *Pre-test data.* This data is general test data that must be recorded for each test. The data is of a more descriptive nature such as identification of the test engine, test site number, etc. As such, this data can be recorded at any time within 24 hours of the test.

(3) *Test-data.* This data is physical test data that must be recorded at the time of testing.

(b) All data may be supplied to the Administrator by punch cards, magnetic tape, or other electronic data processing means. Acceptable data formats and transmission techniques will be provided in the Application Format for Certification of the applicable Model Year.

(c) *Engine set-up data.* Because the specific test facilities may change somewhat with time, the specific data parameters and number of items may vary slightly. The Application Format for Certification for the applicable Model Year will specify the exact requirements. In general, the following type of data will be required:

(1) Engine manufacturer.
(2) Engine system combination.
(3) Engine code and CID.
(4) Engine identification number.
(5) Applicable engine model year.
(6) Engine fuel type.
(7) Recommended oil type.
(8) Exhaust pipe configuration pipe sizes, etc.
(9) Curb idle speed.
(10) Dynamometer idle speed. (Automatic transmission engines only.)
(11) Engine parameter specifications such as spark timing, operating temperature, advance curves, etc.
(12) Engine performance data such as, maximum BHP, rated speed, fuel flow, governed speed, etc.
(13) Recommended start-up procedure.
(14) Maximum safe engine operating speed.
(15) Number of hours of operation accumulated on engine.

(b) *Pre-test data.* The following data shall be recorded, and reported to the Administrator for each test conducted for Compliance with the provisions of 40 CFR Part 86, Subpart A:

(1) Engine-system combination.
(2) Engine identification.
(3) Instrument operator(s).
(4) Engine operator(s).
(5) Number of hours of operation accumulated on the engine prior to beginning the test sequence (Figure N84-10).
(6) Fuel identification with average of test fuel used.
(7) Date of most recent analytical assembly calibration.
(8) All pertinent instrument information such as tuning, gain, serial numbers, detector number, calibration curve number, etc. As long as this information is traceable, it may be summarized by system number or analyzer identification numbers.

(c) *Test data.* The physical parameters necessary to compute the test results and insure accuracy of the results shall be recorded for each test conducted for compliance with the provisions of 40 CFR Part 86, Subpart A. Additional test data may be recorded at the discretion of the manufacturer. Extreme details of the test measurements such as analyzer chart deflections will generally not be required on a routine basis to be reported to the Administrator for each test, unless a dispute about the accuracy of the data arises. The following type of data shall be required to be reported to the Administrator. The Application Format for Certification for the applicable Model Year will specify the exact requirements which may change slightly from year to year with the addition or deletion of certain items.

(1) Date and time of day.
(2) Test number.
(3) Engine intake air or test cell temperature.
(4) Barometric pressure.

Note.—A central laboratory barometer may be used: *Provided,* That individual test cell barometric pressure are shown to be within ±0.1 percent of the barometric pressure at the central barometer location.

(5) Engine intake air or test cell and CVS dilution air humidity.
(6) Maximum torque versus speed curve as determined in § 86.1332, with minimum and maximum engine speeds.
(7) Measured maximum horsepower, maximum torque, and rated speeds.
(8) Measured maximum horsepower and torque.
(9) High idle engine speed (diesel engines only).
(10) Fuel consumption at maximum power and torque (diesel engines only).
(11) Curb-idle fuel flow rate.
(12) Cold soak time interval and cool down procedures.
(13) Temperature set point of the heated continuous analysis system components (if applicable).
(14) Test cycle validation criteria as specified in § 86.1341-84 for each test phase (cold-hot).
(15) Total CVS flow rate with dilution factor for each test phase (cold-hot).
(16) Sample concentrations (background corrected) for HC, CO, $CO_2$, and $NO_x$ for each test phase (cold-hot).
(17) Brake specific emissions (g/BHP-hr) for HC, CO and $NO_x$ for each test phase (cold-hot).
(18) The weighted (cold-hot) brake specific emissions (g/BHP-hr) for the total test.
(19) The weighted (cold-hot) carbon balance brake specific fuel consumption for the total test.
(20) The number of hours of operation accumulated on the engine after completing the test sequences described in Figure N84-10.

25. Appendix I of Part 86 is amended to read as follows:

**Appendix I-Urban Dynamometer Schedules**

(a) * * *
(b) * * *
(c) * * *
(d) * * *
(e) * * *

(f) EPA Engine Dynamometer Schedule for Heavy-Duty Gasoline Engines.

**Percent Revolutions per Minute and Torque Versus Time Sequence**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 0 | 0.0 | 0.0 |
| 1 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 11 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 |
| 25 | −1.78 | 44.40 |
| 26 | 0.0 | 85.35 |
| 27 | 4.25 | 100.00 |
| 28 | 27.47 | 100.00 |
| 29 | 42.96 | 100.00 |
| 30 | 45.79 | 100.00 |
| 31 | 48.11 | 99.46 |
| 32 | 50.42 | 90.00 |
| 33 | 52.74 | 75.23 |
| 34 | 54.00 | 50.00 |
| 35 | 44.42 | 8.96 |
| 36 | 45.05 | −10.00 |
| 37 | 46.00 | 9.99 |
| 38 | 37.69 | −10.00 |
| 39 | 31.61 | 5.68 |
| 40 | 22.94 | 35.29 |
| 41 | 24.00 | 4.87 |
| 42 | 20.86 | −10.00 |
| 43 | 12.45 | −10.00 |
| 44 | 6.00 | −10.00 |
| 45 | 6.52 | −10.00 |
| 46 | 7.17 | −10.00 |
| 47 | 2.56 | −10.00 |
| 48 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 |
| 51 | 0.0 | 10.11 |
| 52 | 4.32 | 46.40 |
| 53 | 8.90 | 45.17 |
| 54 | 1.95 | 50.00 |
| 55 | 3.33 | 41.68 |
| 56 | 4.00 | 89.46 |
| 57 | 13.78 | 55.60 |
| 58 | 26.43 | 26.96 |
| 59 | 33.85 | −6.16 |
| 60 | 36.00 | −10.00 |
| 61 | 34.45 | −10.00 |
| 62 | 34.00 | −10.00 |
| 63 | 35.64 | −10.00 |
| 64 | 32.99 | 27.39 |
| 65 | 36.00 | 80.00 |
| 66 | 41.63 | 74.37 |
| 67 | 60.41 | 26.76 |
| 68 | 48.44 | −10.00 |
| 69 | 43.86 | −10.00 |
| 70 | 40.39 | −10.00 |
| 71 | 38.50 | 4.01 |
| 72 | 35.05 | 30.00 |
| 73 | 40.68 | 16.70 |
| 74 | 43.64 | 26.45 |
| 75 | 45.96 | −10.00 |
| 76 | 47.10 | −10.00 |
| 77 | 49.29 | −10.00 |
| 78 | 37.10 | −10.00 |
| 79 | 36.00 | −10.00 |
| 80 | 34.47 | −10.00 |
| 81 | 32.15 | −10.00 |
| 82 | 31.67 | −10.00 |
| 83 | 28.48 | 13.89 |
| 84 | 32.38 | 90.00 |
| 85 | 36.00 | 90.00 |
| 86 | 41.69 | 90.00 |
| 87 | 45.74 | 90.00 |
| 88 | 49.95 | 80.00 |
| 89 | 49.10 | 80.00 |
| 90 | 50.59 | 62.97 |
| 91 | 45.99 | 34.98 |
| 92 | 42.76 | 7.23 |
| 93 | 35.12 | −10.00 |
| 94 | 32.08 | 67.92 |
| 95 | 35.53 | 62.55 |
| 96 | 46.57 | 68.60 |
| 97 | 49.77 | 48.85 |
| 98 | 52.00 | 60.00 |
| 99 | 58.06 | 60.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 100 | 63.68 | 23.42 |
| 101 | 64.14 | 17.84 |
| 102 | 59.58 | 3.76 |
| 103 | 38.00 | 42.26 |
| 104 | 39.09 | 30.00 |
| 105 | 40.00 | 30.00 |
| 106 | 34.85 | 47.18 |
| 107 | 32.03 | 10.33 |
| 108 | 34.00 | 33.48 |
| 109 | 34.00 | 50.00 |
| 110 | 33.02 | 20.69 |
| 111 | 25.54 | −10.00 |
| 112 | 15.57 | −10.00 |
| 113 | 14.00 | −10.00 |
| 114 | 14.47 | 27.84 |
| 115 | 18.00 | 4.49 |
| 116 | 17.13 | −10.00 |
| 117 | 16.00 | −10.00 |
| 118 | 10.02 | −10.00 |
| 119 | 9.81 | −10.00 |
| 120 | 5.88 | −10.00 |
| 121 | 4.00 | −10.00 |
| 122 | 4.00 | −10.00 |
| 123 | 2.93 | −10.00 |
| 124 | 0.62 | −10.00 |
| 125 | 0.0 | 0.0 |
| 126 | 0.0 | 0.0 |
| 127 | 0.0 | 0.0 |
| 128 | 0.0 | 0.0 |
| 129 | 0.0 | 0.0 |
| 130 | 0.0 | 10.00 |
| 131 | 0.0 | 10.00 |
| 132 | 0.0 | 29.02 |
| 133 | 0.0 | 27.83 |
| 134 | 0.0 | 7.34 |
| 135 | 0.0 | 0.0 |
| 136 | 0.0 | 0.0 |
| 137 | 0.0 | 0.0 |
| 138 | 0.0 | 0.0 |
| 139 | 0.0 | 0.0 |
| 140 | 0.0 | 0.0 |
| 141 | 0.0 | 0.0 |
| 142 | 0.0 | 0.0 |
| 143 | 0.0 | 0.0 |
| 144 | 0.0 | 0.0 |
| 145 | 0.0 | 0.0 |
| 146 | 2.00 | 0.0 |
| 147 | 1.38 | 0.0 |
| 148 | 0.0 | 0.0 |
| 149 | 0.0 | 6.27 |
| 150 | 0.0 | 2.16 |
| 151 | 0.0 | 0.0 |
| 152 | 0.0 | 0.0 |
| 153 | 0.0 | 0.0 |
| 154 | 0.83 | −10.00 |
| 155 | 2.00 | −10.00 |
| 156 | 0.54 | −10.00 |
| 157 | 0.0 | 0.0 |
| 158 | 0.0 | 0.0 |
| 159 | 0.0 | 0.0 |
| 160 | 0.0 | 0.0 |
| 161 | 0.0 | 0.0 |
| 162 | 0.0 | 0.0 |
| 163 | 0.0 | 0.0 |
| 164 | 0.0 | 0.0 |
| 165 | 0.0 | 0.0 |
| 166 | 0.0 | 0.0 |
| 167 | 0.0 | 22.01 |
| 168 | 1.23 | 72.29 |
| 169 | 6.63 | 80.00 |
| 170 | 17.29 | 89.29 |
| 171 | 22.17 | 90.00 |
| 172 | 24.00 | 82.70 |
| 173 | 24.00 | 31.96 |
| 174 | 24.00 | −10.00 |
| 175 | 22.57 | −10.00 |
| 176 | 22.00 | −10.00 |
| 177 | 13.88 | −10.00 |
| 178 | 10.00 | −10.00 |
| 179 | 9.31 | −10.00 |
| 180 | 3.99 | −10.00 |
| 181 | 0.0 | 0.0 |
| 182 | 0.0 | 0.0 |
| 183 | 0.0 | 0.0 |
| 184 | 0.0 | 0.0 |
| 185 | 0.0 | 0.0 |
| 186 | 0.0 | 0.0 |
| 187 | 0.0 | 0.0 |
| 188 | 0.0 | 0.0 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 189 | 0.0 | 0.0 |
| 190 | 0.0 | 0.0 |
| 191 | 0.0 | 0.0 |
| 192 | 0.0 | 0.0 |
| 193 | 0.0 | 0.0 |
| 194 | 0.0 | 0.0 |
| 195 | 0.0 | 0.0 |
| 196 | 0.0 | 0.0 |
| 197 | 0.0 | 0.0 |
| 198 | 0.0 | 0.0 |
| 199 | 0.0 | 0.0 |
| 200 | 0.0 | 0.0 |
| 201 | 0.0 | 0.0 |
| 202 | 0.0 | 0.0 |
| 203 | 0.0 | 0.0 |
| 204 | −2.52 | 6.30 |
| 205 | −4.22 | 15.28 |
| 206 | 0.0 | 10.00 |
| 207 | 0.0 | 10.00 |
| 208 | 0.0 | 10.00 |
| 209 | 0.0 | 75.93 |
| 210 | 0.0 | 32.22 |
| 211 | 1.67 | 35.00 |
| 212 | 15.48 | 29.82 |
| 213 | 25.46 | −10.00 |
| 214 | 24.22 | −10.00 |
| 215 | 23.44 | −10.00 |
| 216 | 12.41 | 80.00 |
| 217 | 8.94 | 83.61 |
| 218 | 7.26 | 84.82 |
| 219 | 16.70 | 80.00 |
| 220 | 24.67 | 83.33 |
| 221 | 0.24 | 79.81 |
| 222 | 0.0 | 8.52 |
| 223 | 0.0 | 0.0 |
| 224 | 0.0 | 0.0 |
| 225 | 0.0 | 0.0 |
| 226 | 0.0 | 0.0 |
| 227 | 0.0 | 0.0 |
| 228 | 0.0 | 0.0 |
| 229 | 0.0 | 0.0 |
| 230 | 0.0 | 0.0 |
| 231 | 0.0 | 0.0 |
| 232 | 0.0 | 0.0 |
| 233 | 0.0 | 17.59 |
| 234 | 0.0 | 19.63 |
| 235 | 0.0 | 10.00 |
| 236 | 0.0 | 10.00 |
| 237 | 0.0 | 10.00 |
| 238 | 0.0 | 3.34 |
| 239 | 0.0 | 0.0 |
| 240 | 0.0 | 0.0 |
| 241 | 0.0 | 0.0 |
| 242 | 0.0 | 0.0 |
| 243 | 0.0 | 0.0 |
| 244 | 0.0 | 0.0 |
| 245 | 0.0 | 0.0 |
| 246 | 0.0 | 0.0 |
| 247 | 0.0 | 0.0 |
| 248 | 0.0 | 0.0 |
| 249 | 0.0 | 0.0 |
| 250 | 0.0 | 0.0 |
| 251 | 0.0 | 0.0 |
| 252 | 0.0 | 0.0 |
| 253 | 0.0 | 0.0 |
| 254 | 0.0 | 0.0 |
| 255 | 0.0 | 0.0 |
| 256 | 0.0 | 0.0 |
| 257 | 0.0 | 0.0 |
| 258 | 0.0 | 0.0 |
| 259 | 0.0 | 0.0 |
| 260 | 0.0 | 0.0 |
| 261 | 0.0 | 0.0 |
| 262 | 0.0 | 0.0 |
| 263 | 0.0 | 0.0 |
| 264 | 0.0 | 0.0 |
| 265 | 0.0 | 0.0 |
| 266 | 0.0 | 0.0 |
| 267 | 0.0 | 0.0 |
| 268 | 0.0 | 0.0 |
| 269 | 0.0 | 0.0 |
| 270 | 0.0 | 0.0 |
| 271 | 0.0 | 0.0 |
| 272 | 0.0 | 0.0 |
| 273 | 0.0 | 0.0 |
| 274 | 0.0 | 0.0 |
| 275 | 0.0 | 0.0 |
| 276 | 0.0 | 0.0 |
| 277 | 0.0 | 0.0 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 278 | 0.0 | 0.0 |
| 279 | 0.0 | 0.0 |
| 280 | 0.0 | 0.0 |
| 281 | 0.0 | 4.17 |
| 282 | 1.15 | 10.00 |
| 283 | 2.00 | 10.00 |
| 284 | 0.22 | 10.00 |
| 285 | 0.0 | 0.0 |
| 286 | 0.0 | 0.0 |
| 287 | 0.0 | 0.0 |
| 288 | 0.0 | 0.0 |
| 289 | 0.0 | 0.0 |
| 290 | 0.0 | 0.0 |
| 291 | 0.0 | 0.0 |
| 292 | 0.0 | 0.0 |
| 293 | 0.0 | 0.0 |
| 294 | 0.0 | 0.0 |
| 295 | 0.0 | 0.0 |
| 296 | 0.0 | 0.0 |
| 297 | 0.0 | 0.0 |
| 298 | 0.0 | 0.0 |
| 299 | 0.0 | 0.0 |
| 300 | 0.0 | 4.07 |
| 301 | 0.0 | 10.00 |
| 302 | 0.0 | 17.22 |
| 303 | 0.0 | 20.00 |
| 304 | 0.0 | 20.37 |
| 305 | 2.33 | 31.94 |
| 306 | 16.22 | 36.48 |
| 307 | 24.00 | 24.91 |
| 308 | 24.00 | 13.34 |
| 309 | 19.06 | 10.00 |
| 310 | 18.00 | −10.00 |
| 311 | 17.17 | −10.00 |
| 312 | 9.04 | −10.00 |
| 313 | 1.09 | −10.00 |
| 314 | 0.0 | 0.0 |
| 315 | 0.0 | 0.0 |
| 316 | 0.0 | 0.0 |
| 317 | 0.0 | 0.0 |
| 318 | 0.0 | 0.0 |
| 319 | 0.0 | 0.0 |
| 320 | 0.0 | 0.0 |
| 321 | 0.0 | 0.0 |
| 322 | 0.0 | 0.0 |
| 323 | 0.0 | 0.82 |
| 324 | 0.37 | 41.08 |
| 325 | 2.68 | 90.00 |
| 326 | 6.00 | 94.99 |
| 327 | 11.94 | 100.00 |
| 328 | 15.63 | 100.00 |
| 329 | 41.26 | 90.28 |
| 330 | 46.26 | 90.00 |
| 331 | 44.56 | 67.08 |
| 332 | 36.00 | 1.12 |
| 333 | 27.58 | 50.12 |
| 334 | 23.52 | 90.00 |
| 335 | 24.00 | 90.00 |
| 336 | 26.29 | 70.00 |
| 337 | 30.00 | 65.38 |
| 338 | 30.00 | 34.47 |
| 339 | 30.00 | 10.00 |
| 340 | 30.00 | 10.00 |
| 341 | 30.00 | 10.00 |
| 342 | 30.18 | 60.00 |
| 343 | 40.00 | 58.25 |
| 344 | 40.67 | 50.00 |
| 345 | 41.02 | 50.00 |
| 346 | 40.00 | 50.00 |
| 347 | 41.61 | 50.00 |
| 348 | 42.00 | 50.00 |
| 349 | 46.00 | 50.00 |
| 350 | 48.22 | 50.00 |
| 351 | 59.21 | 58.69 |
| 352 | 67.18 | 70.00 |
| 353 | 71.00 | 70.00 |
| 354 | 72.00 | 70.00 |
| 355 | 72.13 | 68.08 |
| 356 | 74.89 | 28.94 |
| 357 | 68.91 | −10.00 |
| 358 | 49.71 | −10.00 |
| 359 | 41.84 | −10.00 |
| 360 | 38.30 | −10.00 |
| 361 | 35.93 | −10.00 |
| 362 | 28.00 | −10.00 |
| 363 | 23.48 | −10.00 |
| 364 | 10.16 | −10.00 |
| 365 | 4.72 | −10.00 |
| 366 | 0.82 | 5.90 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 367 | −9.53 | 19.53 |
| 368 | 2.20 | 45.60 |
| 369 | 20.53 | 7.33 |
| 370 | 21.15 | 0.0 |
| 371 | 17.67 | −10.00 |
| 372 | 13.04 | −10.00 |
| 373 | 8.41 | 79.70 |
| 374 | 10.33 | 100.00 |
| 375 | 17.27 | 100.00 |
| 376 | 22.00 | 100.00 |
| 377 | 25.16 | 100.00 |
| 378 | 29.37 | 100.00 |
| 379 | 36.73 | 66.35 |
| 380 | 40.00 | −10.00 |
| 381 | 23.50 | −10.00 |
| 382 | 9.37 | −10.00 |
| 383 | 8.00 | −10.00 |
| 384 | 6.74 | −10.00 |
| 385 | 2.86 | −10.00 |
| 386 | 0.11 | −10.00 |
| 387 | 0.0 | 0.0 |
| 388 | 0.0 | 0.0 |
| 389 | 0.0 | 0.0 |
| 390 | 0.0 | 0.0 |
| 391 | 0.0 | 0.0 |
| 392 | 0.0 | 0.0 |
| 393 | 0.0 | 0.0 |
| 394 | 0.0 | 0.0 |
| 395 | 0.0 | 0.0 |
| 396 | 0.0 | 0.0 |
| 397 | 0.0 | 0.0 |
| 398 | 0.0 | 0.0 |
| 399 | 0.0 | 0.0 |
| 400 | 0.0 | 0.0 |
| 401 | 0.0 | 0.0 |
| 402 | 0.0 | 0.0 |
| 403 | 0.0 | 0.0 |
| 404 | 0.0 | 0.0 |
| 405 | 0.0 | 0.0 |
| 406 | 0.0 | 0.0 |
| 407 | 0.0 | 0.0 |
| 408 | 0.0 | 0.0 |
| 409 | 0.0 | 0.0 |
| 410 | 0.0 | 0.0 |
| 411 | 0.0 | 0.0 |
| 412 | 0.0 | 0.0 |
| 413 | 0.0 | 0.0 |
| 414 | 0.0 | 0.0 |
| 415 | 0.0 | 0.0 |
| 416 | 0.0 | 0.0 |
| 417 | 0.0 | 0.0 |
| 418 | 0.0 | 0.0 |
| 419 | 2.27 | 20.00 |
| 420 | 2.82 | 14.11 |
| 421 | 0.0 | 0.0 |
| 422 | 0.0 | 0.0 |
| 423 | 0.0 | 0.0 |
| 424 | 0.0 | 0.0 |
| 425 | 0.0 | 0.0 |
| 426 | 0.0 | 0.0 |
| 427 | 0.0 | 0.0 |
| 428 | 0.0 | 0.0 |
| 429 | 0.0 | 0.0 |
| 430 | 0.0 | 0.0 |
| 431 | 0.26 | 0.78 |
| 432 | 16.60 | 31.83 |
| 433 | 45.32 | 29.78 |
| 434 | 43.00 | 10.00 |
| 435 | 40.69 | 10.00 |
| 436 | 35.12 | 10.00 |
| 437 | 28.18 | 19.70 |
| 438 | 28.26 | 47.45 |
| 439 | 30.00 | 30.00 |
| 440 | 30.00 | 30.00 |
| 441 | 30.00 | 30.00 |
| 442 | 34.54 | 30.00 |
| 443 | 36.00 | 30.00 |
| 444 | 36.43 | 30.00 |
| 445 | 43.84 | 30.00 |
| 446 | 50.00 | 30.00 |
| 447 | 50.00 | −24.56 |
| 448 | 50.00 | 20.00 |
| 449 | 50.00 | −10.00 |
| 450 | 37.97 | −10.00 |
| 451 | 35.30 | −10.00 |
| 452 | 30.68 | −10.00 |
| 453 | 27.02 | −10.00 |
| 454 | 26.00 | −10.00 |
| 455 | 26.00 | −10.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 456 | 20.24 | −10.00 |
| 457 | 14.00 | −10.00 |
| 458 | 13.45 | 18.27 |
| 459 | 9.40 | 52.99 |
| 460 | 10.72 | 81.81 |
| 461 | 15.50 | 97.48 |
| 462 | 19.62 | 100.00 |
| 463 | 20.25 | 100.00 |
| 464 | 25.76 | 100.00 |
| 465 | 35.02 | 100.00 |
| 466 | 42.14 | 94.65 |
| 467 | 44.00 | 90.00 |
| 468 | 45.70 | 90.00 |
| 469 | 51.99 | 60.00 |
| 470 | 50.00 | 60.00 |
| 471 | 51.29 | 63.22 |
| 472 | 54.96 | 70.00 |
| 473 | 56.00 | 70.00 |
| 474 | 62.35 | 30.25 |
| 475 | 71.61 | 30.00 |
| 476 | 76.22 | 50.00 |
| 477 | 78.00 | 50.00 |
| 478 | 78.00 | 41.53 |
| 479 | 55.93 | 12.58 |
| 480 | 38.52 | 0.0 |
| 481 | 34.42 | 71.65 |
| 482 | 36.11 | 79.47 |
| 483 | 38.84 | 67.90 |
| 484 | 42.74 | 60.00 |
| 485 | 44.00 | 54.75 |
| 486 | 49.46 | 30.35 |
| 487 | 52.00 | 30.00 |
| 488 | 32.05 | −10.00 |
| 489 | 25.69 | 0.0 |
| 490 | 24.00 | 0.0 |
| 491 | 24.00 | −10.00 |
| 492 | 20.24 | −10.00 |
| 493 | 10.16 | 68.43 |
| 494 | 8.00 | 80.59 |
| 495 | 10.20 | 80.99 |
| 496 | 13.54 | 90.00 |
| 497 | 18.00 | 94.13 |
| 498 | 20.28 | 100.00 |
| 499 | 22.00 | 100.00 |
| 500 | 23.77 | 91.15 |
| 501 | 26.08 | 90.00 |
| 502 | 30.00 | 96.01 |
| 503 | 32.85 | 80.70 |
| 504 | 32.86 | 100.00 |
| 505 | 33.37 | 100.00 |
| 506 | 36.00 | 100.00 |
| 507 | 51.77 | 100.00 |
| 508 | 60.57 | 95.72 |
| 509 | 64.00 | 70.00 |
| 510 | 64.91 | 70.00 |
| 511 | 75.83 | 70.00 |
| 512 | 82.00 | 70.00 |
| 513 | 85.72 | 51.42 |
| 514 | 86.17 | 49.14 |
| 515 | 86.49 | 35.13 |
| 516 | 90.00 | 15.99 |
| 517 | 91.12 | 28.74 |
| 518 | 92.00 | 32.85 |
| 519 | 93.74 | 30.00 |
| 520 | 89.29 | −10.00 |
| 521 | 66.00 | 41.87 |
| 522 | 67.38 | 58.83 |
| 523 | 80.02 | 54.90 |
| 524 | 93.95 | 66.34 |
| 525 | 97.63 | 63.69 |
| 526 | 94.11 | 60.00 |
| 527 | 85.66 | −10.00 |
| 528 | 70.00 | −10.00 |
| 529 | 69.11 | −10.00 |
| 530 | 66.80 | −10.00 |
| 531 | 64.48 | −10.00 |
| 532 | 53.00 | 44.96 |
| 533 | 52.73 | 49.27 |
| 534 | 62.00 | 40.00 |
| 535 | 62.00 | 43.88 |
| 536 | 64.18 | 44.55 |
| 537 | 53.36 | 4.88 |
| 538 | 46.28 | 15.79 |
| 539 | 46.00 | 19.63 |
| 540 | 45.65 | 10.00 |
| 541 | 45.99 | 10.00 |
| 542 | 48.05 | 10.00 |
| 543 | 44.71 | 3.54 |
| 544 | 48.82 | −10.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 545 | 51.92 | 66.82 |
| 546 | 47.53 | −10.00 |
| 547 | 36.31 | 9.23 |
| 548 | 17.73 | 55.68 |
| 549 | 29.43 | 38.22 |
| 550 | 36.00 | 37.46 |
| 551 | 36.00 | 40.00 |
| 552 | 34.00 | 40.00 |
| 553 | 34.00 | 40.00 |
| 554 | 34.00 | 36.25 |
| 555 | 38.26 | 24.68 |
| 556 | 43.38 | 61.38 |
| 557 | 50.78 | 46.12 |
| 558 | 52.00 | 19.92 |
| 559 | 52.32 | 0.0 |
| 560 | 52.09 | 3.19 |
| 561 | 48.00 | 10.00 |
| 562 | 48.00 | 10.00 |
| 563 | 48.00 | 10.00 |
| 564 | 30.94 | 19.48 |
| 565 | 28.00 | 20.00 |
| 566 | 28.00 | 20.00 |
| 567 | 28.00 | 15.81 |
| 568 | 28.00 | 10.00 |
| 569 | 26.53 | 10.00 |
| 570 | 26.00 | 10.00 |
| 571 | 23.71 | −10.00 |
| 572 | 17.59 | −10.00 |
| 573 | 11.65 | −10.00 |
| 574 | 1.92 | −10.00 |
| 575 | 0.0 | 0.0 |
| 576 | 0.0 | 0.0 |
| 577 | 0.0 | 0.0 |
| 578 | 0.0 | 0.0 |
| 579 | 0.0 | 0.0 |
| 580 | 0.0 | 0.0 |
| 581 | 0.0 | 0.0 |
| 582 | 0.0 | 0.0 |
| 583 | 1.26 | 25.19 |
| 584 | 6.72 | 47.87 |
| 585 | 13.67 | 40.56 |
| 586 | 16.20 | 80.00 |
| 587 | 18.52 | 80.00 |
| 588 | 25.83 | 75.83 |
| 589 | 35.15 | 70.00 |
| 590 | 38.93 | 77.31 |
| 591 | 41.78 | 80.00 |
| 592 | 40.00 | 10.00 |
| 593 | 40.00 | 20.18 |
| 594 | 40.00 | 52.78 |
| 595 | 40.00 | 34.82 |
| 596 | 40.00 | 30.00 |
| 597 | 40.00 | 38.33 |
| 598 | 40.00 | 30.09 |
| 599 | 38.30 | 100.00 |
| 600 | 40.61 | 100.00 |
| 601 | 42.00 | 100.00 |
| 602 | 42.00 | 100.00 |
| 603 | 42.00 | 100.00 |
| 604 | 42.00 | 100.00 |
| 605 | 42.00 | 100.00 |
| 606 | 42.50 | 97.50 |
| 607 | 43.19 | 85.93 |
| 608 | 43.13 | 85.65 |
| 609 | 44.00 | 90.00 |
| 610 | 44.00 | 90.00 |
| 611 | 44.00 | 80.00 |
| 612 | 44.00 | 80.00 |
| 613 | 44.70 | 80.00 |
| 614 | 46.00 | 74.91 |
| 615 | 46.00 | 63.34 |
| 616 | 46.00 | 60.00 |
| 617 | 46.00 | 60.00 |
| 618 | 44.00 | 10.00 |
| 619 | 44.00 | 10.00 |
| 620 | 43.09 | 10.00 |
| 621 | 42.00 | 10.00 |
| 622 | 42.00 | 10.00 |
| 623 | 43.85 | 19.26 |
| 624 | 50.00 | 90.00 |
| 625 | 50.00 | 90.00 |
| 626 | 50.00 | 90.00 |
| 627 | 50.00 | 90.00 |
| 628 | 50.00 | 90.00 |
| 629 | 48.26 | 90.00 |
| 630 | 48.00 | 89.73 |
| 631 | 48.37 | 80.00 |
| 632 | 49.32 | 80.00 |
| 633 | 48.00 | 80.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 634 | 48.00 | 80.00 |
| 635 | 48.00 | 80.00 |
| 636 | 48.00 | 70.28 |
| 637 | 48.00 | 70.00 |
| 638 | 48.00 | 70.00 |
| 639 | 48.00 | 74.44 |
| 640 | 48.00 | 61.98 |
| 641 | 49.52 | 50.00 |
| 642 | 50.00 | 50.00 |
| 643 | 50.00 | 40.00 |
| 644 | 50.00 | 44.62 |
| 645 | 50.78 | 60.00 |
| 646 | 52.00 | 49.08 |
| 647 | 52.00 | 40.00 |
| 648 | 52.00 | 40.00 |
| 649 | 52.04 | 40.89 |
| 650 | 54.00 | 90.00 |
| 651 | 54.00 | 90.00 |
| 652 | 54.00 | 85.10 |
| 653 | 55.29 | 73.53 |
| 654 | 56.00 | 70.90 |
| 655 | 56.00 | 70.00 |
| 656 | 56.00 | 60.00 |
| 657 | 56.00 | 57.23 |
| 658 | 56.00 | 50.00 |
| 659 | 56.00 | 36.17 |
| 660 | 56.00 | 30.00 |
| 661 | 56.00 | 30.00 |
| 662 | 54.00 | 39.36 |
| 663 | 54.00 | 27.79 |
| 664 | 54.00 | 20.00 |
| 665 | 54.00 | 20.00 |
| 666 | 54.00 | 20.00 |
| 667 | 54.00 | 11.46 |
| 668 | 54.00 | 0.06 |
| 669 | 54.00 | 13.31 |
| 670 | 54.00 | 30.00 |
| 671 | 54.96 | 30.00 |
| 672 | 57.28 | 30.00 |
| 673 | 56.41 | 30.00 |
| 674 | 57.91 | 30.00 |
| 675 | 58.22 | 36.60 |
| 676 | 60.00 | 90.00 |
| 677 | 60.00 | 90.00 |
| 678 | 60.00 | 95.82 |
| 679 | 60.00 | 92.80 |
| 680 | 60.00 | 90.00 |
| 681 | 60.00 | 90.00 |
| 682 | 60.42 | 90.00 |
| 683 | 62.74 | 90.00 |
| 684 | 65.05 | 90.00 |
| 685 | 66.00 | 83.16 |
| 686 | 66.00 | 71.58 |
| 687 | 66.00 | 70.00 |
| 688 | 66.00 | 70.00 |
| 689 | 66.00 | 73.14 |
| 690 | 66.00 | 80.00 |
| 691 | 66.00 | 86.28 |
| 692 | 66.00 | 90.00 |
| 693 | 66.00 | 90.00 |
| 694 | 68.20 | 100.00 |
| 695 | 70.00 | 100.00 |
| 696 | 70.00 | 100.00 |
| 697 | 70.00 | 100.00 |
| 698 | 74.38 | 100.00 |
| 699 | 76.00 | 100.00 |
| 700 | 72.09 | 100.00 |
| 701 | 73.60 | 100.00 |
| 702 | 72.00 | 100.00 |
| 703 | 72.00 | 100.00 |
| 704 | 72.00 | 100.00 |
| 705 | 72.00 | 100.00 |
| 706 | 72.00 | 100.00 |
| 707 | 72.29 | 100.00 |
| 708 | 73.39 | 100.00 |
| 709 | 72.92 | 100.00 |
| 710 | 74.00 | 100.00 |
| 711 | 74.00 | 100.00 |
| 712 | 77.73 | 100.00 |
| 713 | 78.00 | 100.00 |
| 714 | 77.50 | 100.00 |
| 715 | 76.00 | 100.00 |
| 716 | 76.00 | 100.00 |
| 717 | 76.00 | 100.00 |
| 718 | 72.49 | 100.00 |
| 719 | 71.79 | 100.00 |
| 720 | 67.16 | 100.00 |
| 721 | 72.70 | 100.00 |
| 722 | 75.02 | 100.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 723 | 73.34 | 100.00 |
| 724 | 73.64 | 91.78 |
| 725 | 74.00 | 31.21 |
| 726 | 78.27 | 29.68 |
| 727 | 80.00 | 17.05 |
| 728 | 80.00 | 5.48 |
| 729 | 80.00 | −10.00 |
| 730 | 80.00 | −10.00 |
| 731 | 80.00 | 63.98 |
| 732 | 84.00 | 86.00 |
| 733 | 85.43 | 82.38 |
| 734 | 87.62 | 93.56 |
| 735 | 84.00 | 100.00 |
| 736 | 84.00 | 100.00 |
| 737 | 84.00 | 91.32 |
| 738 | 86.00 | 100.00 |
| 739 | 86.73 | 100.00 |
| 740 | 90.00 | 96.58 |
| 741 | 91.98 | 90.00 |
| 742 | 94.00 | 90.00 |
| 743 | 95.63 | 81.87 |
| 744 | 96.00 | 89.70 |
| 745 | 100.00 | 98.72 |
| 746 | 100.57 | 78.60 |
| 747 | 102.88 | 50.00 |
| 748 | 104.00 | 73.99 |
| 749 | 104.00 | 90.00 |
| 750 | 104.00 | 25.98 |
| 751 | 103.71 | 20.00 |
| 752 | 98.54 | 20.00 |
| 753 | 98.00 | 20.00 |
| 754 | 99.09 | 25.44 |
| 755 | 98.60 | 65.06 |
| 756 | 103.15 | 80.00 |
| 757 | 100.03 | 80.00 |
| 758 | 102.35 | 80.00 |
| 759 | 104.00 | 73.36 |
| 760 | 104.00 | 55.11 |
| 761 | 101.42 | 30.62 |
| 762 | 98.39 | 11.97 |
| 763 | 57.65 | −10.00 |
| 764 | 58.00 | −10.00 |
| 765 | 57.45 | −10.00 |
| 766 | 56.00 | −10.00 |
| 767 | 56.00 | −10.00 |
| 768 | 56.00 | 27.39 |
| 769 | 56.00 | 40.00 |
| 770 | 56.00 | 50.00 |
| 771 | 56.00 | 45.60 |
| 772 | 56.00 | 33.77 |
| 773 | 56.00 | 40.00 |
| 774 | 60.15 | 5.40 |
| 775 | 62.00 | −10.00 |
| 776 | 62.00 | −10.00 |
| 777 | 62.00 | 41.64 |
| 778 | 62.00 | 59.65 |
| 779 | 62.00 | 75.21 |
| 780 | 62.00 | 76.36 |
| 781 | 62.00 | 80.00 |
| 782 | 62.00 | 80.00 |
| 783 | 62.00 | 80.00 |
| 784 | 62.00 | 80.00 |
| 785 | 61.15 | 80.00 |
| 786 | 60.00 | 80.00 |
| 787 | 60.00 | 87.38 |
| 788 | 60.00 | 90.00 |
| 789 | 60.00 | 90.00 |
| 790 | 60.00 | 90.00 |
| 791 | 60.00 | 90.00 |
| 792 | 60.00 | 90.00 |
| 793 | 60.00 | 83.17 |
| 794 | 60.00 | 80.00 |
| 795 | 60.00 | 89.57 |
| 796 | 62.31 | 90.00 |
| 797 | 64.00 | 86.88 |
| 798 | 64.00 | 80.00 |
| 799 | 64.00 | 80.00 |
| 800 | 64.00 | 80.00 |
| 801 | 64.00 | 80.00 |
| 802 | 66.00 | 70.00 |
| 803 | 66.51 | 70.00 |
| 804 | 68.00 | 65.87 |
| 805 | 68.00 | 60.00 |
| 806 | 68.00 | 60.00 |
| 807 | 73.31 | 86.55 |
| 808 | 74.00 | 90.00 |
| 809 | 74.00 | 90.00 |
| 810 | 73.29 | 90.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 811 | 72.00 | 84.86 |
| 812 | 73.34 | 73.29 |
| 813 | 74.00 | 70.00 |
| 814 | 72.03 | 70.00 |
| 815 | 71.71 | 50.00 |
| 816 | 70.00 | 50.00 |
| 817 | 70.00 | 50.00 |
| 818 | 68.77 | 56.15 |
| 819 | 68.00 | 60.00 |
| 820 | 68.00 | 60.00 |
| 821 | 68.00 | 58.28 |
| 822 | 68.00 | 40.00 |
| 823 | 68.00 | 48.01 |
| 824 | 68.00 | 60.00 |
| 825 | 68.00 | 60.00 |
| 826 | 68.00 | 60.00 |
| 827 | 68.00 | 60.00 |
| 828 | 68.00 | 61.87 |
| 829 | 68.00 | 70.00 |
| 830 | 69.00 | 70.00 |
| 831 | 70.00 | 70.00 |
| 832 | 70.00 | 70.00 |
| 833 | 70.00 | 70.00 |
| 834 | 70.00 | 70.00 |
| 835 | 70.00 | 70.00 |
| 836 | 70.00 | 70.00 |
| 837 | 73.61 | 70.00 |
| 838 | 76.00 | 62.41 |
| 839 | 76.00 | 60.00 |
| 840 | 76.00 | 100.00 |
| 841 | 76.92 | 100.00 |
| 842 | 80.78 | 100.00 |
| 843 | 82.00 | 100.00 |
| 844 | 83.40 | 100.00 |
| 845 | 84.00 | 100.00 |
| 846 | 83.97 | 90.00 |
| 847 | 82.35 | 90.00 |
| 848 | 85.33 | 93.31 |
| 849 | 89.95 | 100.00 |
| 850 | 88.13 | 100.00 |
| 851 | 89.21 | 100.00 |
| 852 | 95.76 | 100.00 |
| 853 | 100.23 | 100.00 |
| 854 | 102.00 | 100.00 |
| 855 | 104.59 | 100.00 |
| 856 | 112.71 | 100.00 |
| 857 | 113.01 | 100.00 |
| 858 | 112.00 | 100.00 |
| 859 | 104.00 | −10.00 |
| 860 | 103.56 | −10.00 |
| 861 | 102.75 | −10.00 |
| 862 | 102.94 | −10.00 |
| 863 | 99.24 | −10.00 |
| 864 | 94.61 | −10.00 |
| 865 | 93.99 | −10.00 |
| 866 | 92.32 | −10.00 |
| 867 | 93.36 | −10.00 |
| 868 | 92.00 | −10.00 |
| 869 | 90.73 | −10.00 |
| 870 | 88.42 | −10.00 |
| 871 | 84.21 | −10.00 |
| 872 | 82.00 | 10.00 |
| 873 | 82.00 | 7.38 |
| 874 | 82.00 | −10.00 |
| 875 | 82.00 | −10.00 |
| 876 | 68.79 | 48.69 |
| 877 | 64.00 | 70.00 |
| 878 | 64.00 | 70.00 |
| 879 | 58.66 | 67.95 |
| 880 | 37.27 | 60.00 |
| 881 | 34.96 | 60.00 |
| 882 | 32.65 | 73.54 |
| 883 | 30.33 | 80.00 |
| 884 | 28.02 | 80.00 |
| 885 | 25.70 | 50.00 |
| 886 | 23.39 | 37.76 |
| 887 | 21.07 | 10.00 |
| 888 | 18.76 | 10.00 |
| 889 | 14.89 | −10.00 |
| 890 | 12.13 | −10.00 |
| 891 | 5.45 | −10.00 |
| 892 | 0.0 | 0.0 |
| 893 | 0.0 | 0.0 |
| 894 | 0.0 | 0.0 |
| 895 | 0.0 | 0.0 |
| 896 | 0.0 | 0.0 |
| 897 | 0.0 | 0.0 |
| 898 | 0.0 | 0.0 |
| 899 | 0.0 | 0.0 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 900 | 0.0 | 0.0 |
| 901 | 0.0 | 0.0 |
| 902 | 0.0 | 0.0 |
| 903 | 0.0 | 0.0 |
| 904 | 0.0 | 0.0 |
| 905 | 0.0 | 0.0 |
| 906 | 0.0 | 0.0 |
| 907 | 0.0 | 0.0 |
| 908 | 0.0 | 0.0 |
| 909 | 0.0 | 0.0 |
| 910 | 0.0 | 0.0 |
| 911 | 0.0 | 0.0 |
| 912 | 0.0 | 0.0 |
| 913 | 0.0 | 0.0 |
| 914 | 0.0 | 0.0 |
| 915 | 0.0 | 0.0 |
| 916 | 0.0 | 0.0 |
| 917 | 0.0 | 0.0 |
| 918 | 0.0 | 0.0 |
| 919 | 0.0 | 0.0 |
| 920 | −1.78 | 44.40 |
| 921 | 0.0 | 85.35 |
| 922 | 4.25 | 100.00 |
| 923 | 27.47 | 100.00 |
| 924 | 42.96 | 100.00 |
| 925 | 45.79 | 100.00 |
| 926 | 48.11 | 99.46 |
| 927 | 50.42 | 90.00 |
| 928 | 52.74 | 75.23 |
| 929 | 54.00 | 50.00 |
| 930 | 44.42 | 8.96 |
| 931 | 45.05 | −10.00 |
| 932 | 46.00 | 9.99 |
| 933 | 37.69 | −10.00 |
| 934 | 31.61 | 5.68 |
| 935 | 22.94 | 35.29 |
| 936 | 24.00 | 4.87 |
| 937 | 20.86 | −10.00 |
| 938 | 12.45 | −10.00 |
| 939 | 6.00 | −10.00 |
| 940 | 6.52 | −10.00 |
| 941 | 7.17 | −10.00 |
| 942 | 2.56 | −10.00 |
| 943 | 0.0 | 0.0 |
| 944 | 0.0 | 0.0 |
| 945 | 0.0 | 0.0 |
| 946 | 0.0 | 10.11 |
| 947 | 4.32 | 46.40 |
| 948 | 8.90 | 45.17 |
| 949 | 1.95 | 50.00 |
| 950 | 3.33 | 41.68 |
| 951 | 4.00 | 89.46 |
| 952 | 13.76 | 55.60 |
| 953 | 26.43 | 26.96 |
| 954 | 33.85 | 6.16 |
| 955 | 36.00 | −10.00 |
| 956 | 34.45 | −10.00 |
| 957 | 34.00 | −10.00 |
| 958 | 35.64 | −10.00 |
| 959 | 32.99 | 27.39 |
| 960 | 36.00 | 80.00 |
| 961 | 41.63 | 74.37 |
| 962 | 60.41 | 26.76 |
| 963 | 48.44 | −10.00 |
| 964 | 43.86 | −10.00 |
| 965 | 40.39 | −10.00 |
| 966 | 38.50 | 4.01 |
| 967 | 35.05 | 30.00 |
| 968 | 40.66 | 16.70 |
| 969 | 43.64 | 26.45 |
| 970 | 45.96 | −10.00 |
| 971 | 47.10 | −10.00 |
| 972 | 49.29 | −10.00 |
| 973 | 37.10 | −10.00 |
| 974 | 36.00 | −10.00 |
| 975 | 34.47 | −10.00 |
| 976 | 32.15 | −10.00 |
| 977 | 31.67 | −10.00 |
| 978 | 28.48 | 13.89 |
| 979 | 32.38 | 90.00 |
| 980 | 36.00 | 90.00 |
| 981 | 41.69 | 90.00 |
| 982 | 45.74 | 90.00 |
| 983 | 49.95 | 80.00 |
| 984 | 49.10 | 80.00 |
| 985 | 50.59 | 62.97 |
| 986 | 45.99 | 34.98 |
| 987 | 42.76 | 7.23 |
| 988 | 35.12 | −10.00 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 989 | 32.06 | 67.92 |
| 990 | 35.53 | 62.55 |
| 991 | 46.57 | 68.60 |
| 992 | 49.77 | 48.05 |
| 993 | 52.00 | 60.00 |
| 994 | 58.06 | 60.00 |
| 995 | 63.66 | 23.42 |
| 996 | 64.14 | 17.84 |
| 997 | 59.58 | 3.76 |
| 998 | 38.00 | 42.26 |
| 999 | 39.09 | 30.00 |
| 1000 | 40.00 | 30.00 |
| 1001 | 34.85 | 47.18 |
| 1002 | 32.03 | 10.33 |
| 1003 | 34.00 | 33.48 |
| 1004 | 34.00 | 50.00 |
| 1005 | 33.02 | 20.69 |
| 1006 | 25.54 | −10.00 |
| 1007 | 15.57 | −10.00 |
| 1008 | 14.00 | −10.00 |
| 1009 | 14.47 | 27.64 |
| 1010 | 18.00 | 4.49 |
| 1011 | 17.13 | −10.00 |
| 1012 | 16.00 | −10.00 |
| 1013 | 10.02 | −10.00 |
| 1014 | 9.81 | −10.00 |
| 1015 | 5.88 | −10.00 |
| 1016 | 4.00 | −10.00 |
| 1017 | 4.00 | −10.00 |
| 1018 | 2.93 | −10.00 |
| 1019 | 0.62 | −10.00 |
| 1020 | 0.0 | 0.0 |
| 1021 | 0.0 | 0.0 |
| 1022 | 0.0 | 0.0 |
| 1023 | 0.0 | 0.0 |
| 1024 | 0.0 | 0.0 |
| 1025 | 0.0 | 10.00 |
| 1026 | 0.0 | 10.00 |
| 1027 | 0.0 | 29.02 |
| 1028 | 0.0 | 27.63 |
| 1029 | 0.0 | 7.34 |
| 1030 | 0.0 | 0.0 |
| 1031 | 0.0 | 0.0 |
| 1032 | 0.0 | 0.0 |
| 1033 | 0.0 | 0.0 |
| 1034 | 0.0 | 0.0 |
| 1035 | 0.0 | 0.0 |
| 1036 | 0.0 | 0.0 |
| 1037 | 0.0 | 0.0 |
| 1038 | 0.0 | 0.0 |
| 1039 | 0.0 | 0.0 |
| 1040 | 0.0 | 0.0 |
| 1041 | 2.00 | 0.0 |
| 1042 | 1.38 | 0.0 |
| 1043 | 0.0 | 0.0 |
| 1044 | 0.0 | 0.27 |
| 1045 | 0.0 | 2.10 |
| 1046 | 0.0 | 0.0 |
| 1047 | 0.0 | 0.0 |
| 1048 | 0.0 | 0.0 |
| 1049 | 0.83 | −10.00 |
| 1050 | 2.00 | −10.00 |
| 1051 | 0.54 | −10.00 |
| 1052 | 0.0 | 0.0 |
| 1053 | 0.0 | 0.0 |
| 1054 | 0.0 | 0.0 |
| 1055 | 0.0 | 0.0 |
| 1056 | 0.0 | 0.0 |
| 1057 | 0.0 | 0.0 |
| 1058 | 0.0 | 0.0 |
| 1059 | 0.0 | 0.0 |
| 1060 | 0.0 | 0.0 |
| 1061 | 0.0 | 0.0 |
| 1062 | 0.0 | 22.01 |
| 1063 | 1.23 | 72.29 |
| 1064 | 6.63 | 80.00 |
| 1065 | 17.29 | 89.29 |
| 1066 | 22.17 | 90.00 |
| 1067 | 24.00 | 82.70 |
| 1068 | 24.00 | 31.96 |
| 1069 | 24.00 | −10.00 |
| 1070 | 22.57 | −10.00 |
| 1071 | 22.00 | −10.00 |
| 1072 | 13.88 | −10.00 |
| 1073 | 10.00 | −10.00 |
| 1074 | 9.31 | −10.00 |
| 1075 | 3.99 | −10.00 |
| 1076 | 0.0 | 0.0 |
| 1077 | 0.0 | 0.0 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 1078 | 0.0 | 0.0 |
| 1079 | 0.0 | 0.0 |
| 1080 | 0.0 | 0.0 |
| 1081 | 0.0 | 0.0 |
| 1082 | 0.0 | 0.0 |
| 1083 | 0.0 | 0.0 |
| 1084 | 0.0 | 0.0 |
| 1085 | 0.0 | 0.0 |
| 1086 | 0.0 | 0.0 |
| 1087 | 0.0 | 0.0 |
| 1088 | 0.0 | 0.0 |
| 1089 | 0.0 | 0.0 |
| 1090 | 0.0 | 0.0 |
| 1091 | 0.0 | 0.0 |
| 1092 | 0.0 | 0.0 |
| 1093 | 0.0 | 0.0 |
| 1094 | 0.0 | 0.0 |
| 1095 | 0.0 | 0.0 |
| 1096 | 0.0 | 0.0 |
| 1097 | 0.0 | 0.0 |
| 1098 | 0.0 | 0.0 |
| 1099 | −2.52 | 6.30 |
| 1100 | −4.22 | 15.28 |
| 1101 | 0.0 | 10.00 |
| 1102 | 0.0 | 10.00 |
| 1103 | 0.0 | 10.00 |
| 1104 | 0.0 | 75.93 |
| 1105 | 0.0 | 32.22 |
| 1106 | 1.67 | 35.00 |
| 1107 | 15.48 | 29.82 |
| 1108 | 25.46 | −10.00 |
| 1109 | 24.22 | −10.00 |
| 1110 | 23.44 | −10.00 |
| 1111 | 12.41 | 80.00 |
| 1112 | 8.94 | 83.61 |
| 1113 | 7.26 | 84.82 |
| 1114 | 16.70 | 80.00 |
| 1115 | 24.67 | 63.33 |
| 1116 | 0.24 | 79.81 |
| 1117 | 0.0 | 8.52 |
| 1118 | 0.0 | 0.0 |
| 1119 | 0.0 | 0.0 |
| 1120 | 0.0 | 0.0 |
| 1121 | 0.0 | 0.0 |
| 1122 | 0.0 | 0.0 |
| 1123 | 0.0 | 0.0 |
| 1124 | 0.0 | 0.0 |
| 1125 | 0.0 | 0.0 |
| 1126 | 0.0 | 0.0 |
| 1127 | 0.0 | 0.0 |
| 1128 | 0.0 | 17.59 |
| 1129 | 0.0 | 19.63 |
| 1130 | 0.0 | 10.00 |
| 1131 | 0.0 | 10.00 |
| 1132 | 0.0 | 10.00 |
| 1133 | 0.0 | 3.34 |
| 1134 | 0.0 | 0.0 |
| 1135 | 0.0 | 0.0 |
| 1136 | 0.0 | 0.0 |
| 1137 | 0.0 | 0.0 |
| 1138 | 0.0 | 0.0 |
| 1139 | 0.0 | 0.0 |
| 1140 | 0.0 | 0.0 |
| 1141 | 0.0 | 0.0 |
| 1142 | 0.0 | 0.0 |
| 1143 | 0.0 | 0.0 |
| 1144 | 0.0 | 0.0 |
| 1145 | 0.0 | 0.0 |
| 1146 | 0.0 | 0.0 |
| 1147 | 0.0 | 0.0 |
| 1148 | 0.0 | 0.0 |
| 1149 | 0.0 | 0.0 |
| 1150 | 0.0 | 0.0 |
| 1151 | 0.0 | 0.0 |
| 1152 | 0.0 | 0.0 |
| 1153 | 0.0 | 0.0 |
| 1154 | 0.0 | 0.0 |
| 1155 | 0.0 | 0.0 |
| 1156 | 0.0 | 0.0 |
| 1157 | 0.0 | 0.0 |
| 1158 | 0.0 | 0.0 |
| 1159 | 0.0 | 0.0 |
| 1160 | 0.0 | 0.0 |
| 1161 | 0.0 | 0.0 |
| 1162 | 0.0 | 0.0 |
| 1163 | 0.0 | 0.0 |
| 1164 | 0.0 | 0.0 |
| 1165 | 0.0 | 0.0 |
| 1166 | 0.0 | 0.0 |

**Percent Revolutions per Minute and Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per minute | Torque |
|---|---|---|
| 1167 | 0.0 | 0.0 |

Closed rack.

[2] EPA Engine Dynamometer Schedule For Heavy Duty Diesel Engines

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 0 | 0.0 | 0.0 |
| 1 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 |
| 25 | 0.0 | 3.57 |
| 26 | 0.0 | 47.69 |
| 27 | 3.11 | 59.41 |
| 28 | 9.09 | 84.54 |
| 29 | 15.62 | 80.00 |
| 30 | 33.49 | 80.00 |
| 31 | 37.93 | 79.29 |
| 32 | 31.20 | 36.25 |
| 33 | 21.99 | 26.67 |
| 34 | 30.00 | 15.10 |
| 35 | 22.23 | 16.47 |
| 36 | 19.61 | 28.05 |
| 37 | 20.00 | 20.36 |
| 38 | 18.33 | (1) |
| 39 | 6.55 | (1) |
| 40 | 15.82 | (1) |
| 41 | 23.63 | (1) |
| 42 | 17.51 | (1) |
| 43 | 14.19 | 62.52 |
| 44 | 16.64 | 69.36 |
| 45 | 27.77 | 60.00 |
| 46 | 37.03 | 63.79 |
| 47 | 47.36 | 75.36 |
| 48 | 54.77 | 80.00 |
| 49 | 57.70 | 80.00 |
| 50 | 54.03 | 79.92 |
| 51 | 58.00 | 65.03 |
| 52 | 58.65 | 43.23 |
| 53 | 62.88 | 50.00 |
| 54 | 69.83 | 50.00 |
| 55 | 72.00 | 42.05 |
| 56 | 75.81 | 40.00 |
| 57 | 84.22 | 42.20 |
| 58 | 83.86 | 41.26 |
| 59 | 80.55 | (1) |
| 60 | 80.51 | (1) |
| 61 | 78.00 | (1) |
| 62 | 79.79 | (1) |
| 63 | 80.33 | 30.54 |
| 64 | 85.58 | 42.12 |
| 65 | 81.78 | 50.00 |
| 66 | 78.00 | 50.00 |
| 67 | 80.74 | 43.16 |
| 68 | 92.10 | 73.65 |
| 69 | 88.01 | (1) |
| 70 | 84.00 | (1) |
| 71 | 84.00 | (1) |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 72 | 81.17 | (1) |
| 73 | 70.46 | (1) |
| 74 | 66.00 | 13.57 |
| 75 | 62.23 | 29.43 |
| 76 | 64.00 | 20.00 |
| 77 | 63.48 | 17.42 |
| 78 | 60.34 | 10.00 |
| 79 | 56.85 | 10.00 |
| 80 | 56.00 | (1) |
| 81 | 52.45 | (1) |
| 82 | 39.91 | 10.00 |
| 83 | 36.38 | 10.00 |
| 84 | 30.00 | 10.00 |
| 85 | 27.93 | 10.00 |
| 86 | 26.00 | 16.74 |
| 87 | 27.66 | 3.36 |
| 88 | 28.00 | (1) |
| 89 | 27.41 | (1) |
| 90 | 20.96 | (1) |
| 91 | 12.15 | (1) |
| 92 | 3.81 | (1) |
| 93 | 0.0 | 0.0 |
| 94 | 0.0 | 0.0 |
| 95 | 0.0 | 0.91 |
| 96 | 0.0 | 7.52 |
| 97 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 |
| 99 | 0.0 | 0.0 |
| 100 | 0.0 | 0.0 |
| 101 | 0.0 | 0.0 |
| 102 | 0.0 | 0.0 |
| 103 | 0.0 | 0.0 |
| 104 | 0.0 | 0.0 |
| 105 | 0.0 | 0.0 |
| 106 | 0.0 | 0.0 |
| 107 | 0.0 | 0.0 |
| 108 | 0.0 | 0.0 |
| 109 | 0.0 | 0.0 |
| 110 | 0.0 | 0.0 |
| 111 | 0.0 | 0.0 |
| 112 | 0.0 | 0.0 |
| 113 | 0.0 | 0.0 |
| 114 | 0.0 | 0.0 |
| 115 | 0.0 | 0.0 |
| 116 | 0.0 | 0.0 |
| 117 | 0.0 | 0.0 |
| 118 | 0.0 | 0.0 |
| 119 | 0.0 | 0.0 |
| 120 | 0.0 | 0.0 |
| 121 | 0.0 | 0.0 |
| 122 | 0.0 | 0.0 |
| 123 | 0.0 | 0.0 |
| 124 | 0.0 | 0.0 |
| 125 | 0.0 | 0.0 |
| 126 | 0.0 | 0.0 |
| 127 | 0.0 | 0.0 |
| 128 | 0.0 | 0.0 |
| 129 | 1.77 | (1) |
| 130 | 1.60 | (1) |
| 131 | 0.0 | 0.0 |
| 132 | 0.0 | 0.0 |
| 133 | 2.14 | 9.28 |
| 134 | 3.06 | 0.0 |
| 135 | 0.0 | 0.0 |
| 136 | 0.0 | 0.0 |
| 137 | 0.0 | 0.0 |
| 138 | 0.0 | 0.0 |
| 139 | 0.0 | 0.0 |
| 140 | 0.0 | 0.0 |
| 141 | 0.0 | 0.0 |
| 142 | 0.0 | 0.0 |
| 143 | 0.0 | 0.0 |
| 144 | 0.0 | 0.0 |
| 145 | 0.0 | 0.0 |
| 146 | 0.0 | 0.0 |
| 147 | 0.0 | 5.51 |
| 148 | 0.0 | 11.34 |
| 149 | 0.0 | 0.0 |
| 150 | 0.0 | 0.0 |
| 151 | 0.0 | 0.0 |
| 152 | 0.0 | 0.0 |
| 153 | 0.0 | 0.0 |
| 154 | 0.0 | 0.0 |
| 155 | 0.0 | 0.0 |
| 156 | 0.0 | 0.0 |
| 157 | 0.0 | 0.0 |
| 158 | 0.0 | 0.21 |
| 159 | 0.0 | 30.00 |

**(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 160 | 0.0 | 26.78 |
| 161 | 0.0 | 20.00 |
| 162 | 0.0 | 20.00 |
| 163 | 0.0 | 4.12 |
| 164 | 0.0 | 0.0 |
| 165 | 0.0 | 0.0 |
| 166 | 0.0 | 0.0 |
| 167 | 0.0 | 0.0 |
| 168 | 0.0 | 0.0 |
| 169 | 0.0 | 0.0 |
| 170 | 0.0 | 0.0 |
| 171 | 0.0 | 0.0 |
| 172 | 0.0 | 0.0 |
| 173 | 0.0 | 0.0 |
| 174 | 0.0 | 0.0 |
| 175 | 0.0 | 0.0 |
| 176 | 0.0 | 0.0 |
| 177 | 0.0 | 0.0 |
| 178 | 0.0 | 0.0 |
| 179 | 0.0 | 0.0 |
| 180 | 0.0 | 0.0 |
| 181 | 0.0 | 0.0 |
| 182 | 0.0 | 0.0 |
| 183 | 0.0 | 0.0 |
| 184 | 0.0 | 20.00 |
| 185 | 0.0 | 20.00 |
| 186 | 0.0 | 11.73 |
| 187 | 0.0 | 0.0 |
| 188 | 0.0 | 0.0 |
| 189 | 0.0 | 0.0 |
| 190 | 0.0 | 0.0 |
| 191 | 0.0 | 0.0 |
| 192 | 0.0 | 0.0 |
| 193 | 0.0 | 0.0 |
| 194 | 0.0 | 0.0 |
| 195 | 0.0 | 0.0 |
| 196 | 0.0 | 0.0 |
| 197 | 0.0 | 0.0 |
| 198 | 0.0 | 0.0 |
| 199 | 0.0 | 0.0 |
| 200 | 0.0 | 0.0 |
| 201 | 0.0 | 0.0 |
| 202 | 0.0 | 0.0 |
| 203 | 0.0 | 0.0 |
| 204 | 0.0 | 0.0 |
| 205 | 0.0 | 0.0 |
| 206 | 0.0 | 0.0 |
| 207 | 0.0 | 0.0 |
| 208 | 0.0 | 0.0 |
| 209 | 0.0 | 0.0 |
| 210 | 0.0 | 0.0 |
| 211 | 0.0 | 0.0 |
| 212 | 0.0 | 0.0 |
| 213 | 0.0 | 0.0 |
| 214 | 0.0 | 73.41 |
| 215 | 0.0 | 90.00 |
| 216 | 31.30 | 81.30 |
| 217 | 41.15 | 90.00 |
| 218 | 44.00 | 90.00 |
| 219 | 46.41 | 90.00 |
| 220 | 51.04 | 82.41 |
| 221 | 66.66 | 80.00 |
| 222 | 75.03 | 90.00 |
| 223 | 89.85 | 90.00 |
| 224 | 96.78 | 93.88 |
| 225 | 96.91 | 50.94 |
| 226 | 94.60 | 17.02 |
| 227 | 99.16 | 28.60 |
| 228 | 100.00 | 39.83 |
| 229 | 100.00 | 30.00 |
| 230 | 100.00 | 26.69 |
| 231 | 100.98 | 20.00 |
| 232 | 100.71 | 20.00 |
| 233 | 100.00 | 36.06 |
| 234 | 96.16 | 40.00 |
| 235 | 95.77 | 30.00 |
| 236 | 94.55 | 32.75 |
| 237 | 96.86 | 35.68 |
| 238 | 99.18 | 30.00 |
| 239 | 100.00 | 44.93 |
| 240 | 101.81 | 50.00 |
| 241 | 86.54 | (1) |
| 242 | 63.56 | (1) |
| 243 | 56.00 | (1) |
| 244 | 46.00 | (1) |
| 245 | 41.86 | 45.18 |
| 246 | 38.31 | 78.47 |
| 247 | 35.98 | 80.00 |

**(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 248 | 31.03 | 80.00 |
| 249 | 25.36 | 80.00 |
| 250 | 23.05 | 60.97 |
| 251 | 18.20 | 27.34 |
| 252 | 12.84 | 43.71 |
| 253 | 10.10 | 68.95 |
| 254 | 3.79 | 68.95 |
| 255 | 1.48 | 44.28 |
| 256 | 0.0 | 0.0 |
| 257 | 0.0 | 0.0 |
| 258 | 0.0 | 0.0 |
| 259 | 0.0 | 0.0 |
| 260 | 0.0 | 0.0 |
| 261 | 0.0 | 0.0 |
| 262 | 0.0 | 0.0 |
| 263 | 0.0 | 24.97 |
| 264 | 0.0 | 17.16 |
| 265 | 0.0 | 6.20 |
| 266 | 0.0 | 10.00 |
| 267 | 0.0 | 10.00 |
| 268 | 0.0 | 0.0 |
| 269 | 0.0 | 0.0 |
| 270 | 0.0 | 0.0 |
| 271 | 0.0 | 0.0 |
| 272 | 0.0 | 0.0 |
| 273 | 0.0 | 0.0 |
| 274 | 0.0 | 0.0 |
| 275 | 0.0 | 0.0 |
| 276 | 0.0 | 0.0 |
| 277 | 0.0 | 0.0 |
| 278 | 0.0 | 0.0 |
| 279 | 0.0 | 0.0 |
| 280 | 0.0 | 0.0 |
| 281 | 0.0 | 0.0 |
| 282 | 0.0 | 0.0 |
| 283 | 0.0 | 0.0 |
| 284 | 0.0 | 0.0 |
| 285 | 0.0 | 0.0 |
| 286 | 0.0 | 0.0 |
| 287 | 0.0 | 0.0 |
| 288 | 0.0 | 0.0 |
| 289 | 0.0 | 0.0 |
| 290 | 0.0 | 0.0 |
| 291 | 0.0 | 0.0 |
| 292 | 0.0 | 0.0 |
| 293 | 0.0 | 0.0 |
| 294 | 0.0 | 0.0 |
| 295 | 0.0 | 0.0 |
| 296 | 0.0 | 0.0 |
| 297 | 0.0 | 0.0 |
| 298 | 0.0 | 0.0 |
| 299 | 0.0 | 0.0 |
| 300 | 0.0 | 0.0 |
| 301 | 0.0 | 0.0 |
| 302 | 0.0 | 0.0 |
| 303 | 0.0 | 0.0 |
| 304 | 0.0 | 0.0 |
| 305 | 0.0 | 0.0 |
| 306 | 0.0 | 0.0 |
| 307 | 0.0 | 0.0 |
| 308 | 0.0 | 0.0 |
| 309 | 0.0 | 0.0 |
| 310 | 0.0 | 0.0 |
| 311 | 0.0 | 0.0 |
| 312 | 0.0 | 0.0 |
| 313 | 0.0 | 0.0 |
| 314 | 0.0 | 0.0 |
| 315 | 0.0 | 0.0 |
| 316 | 0.0 | 0.0 |
| 317 | 0.0 | 0.0 |
| 318 | 0.0 | 0.0 |
| 319 | 0.0 | 0.0 |
| 320 | 0.0 | 0.0 |
| 321 | 0.0 | 15.55 |
| 322 | 0.0 | 20.00 |
| 323 | 24.18 | 19.08 |
| 324 | 23.00 | 10.00 |
| 325 | 11.56 | 1.86 |
| 326 | 6.87 | (1) |
| 327 | 6.00 | (1) |
| 328 | 0.72 | (1) |
| 329 | 0.0 | 0.0 |
| 330 | 0.0 | 0.0 |
| 331 | 0.0 | 0.0 |
| 332 | 0.0 | 0.0 |
| 333 | 0.0 | 0.0 |
| 334 | 0.0 | 0.0 |
| 335 | 0.0 | 0.0 |

**(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 336 | 0.0 | 0.0 |
| 337 | 0.0 | 0.0 |
| 338 | 0.0 | 0.0 |
| 339 | 0.0 | 0.0 |
| 340 | 0.0 | 0.0 |
| 341 | 0.0 | 0.0 |
| 342 | 0.0 | 0.0 |
| 343 | 0.0 | 0.0 |
| 344 | 0.0 | 0.0 |
| 345 | 0.0 | 0.0 |
| 346 | 0.0 | 0.0 |
| 347 | 0.0 | 0.0 |
| 348 | 0.0 | 0.0 |
| 349 | 0.0 | 0.0 |
| 350 | 0.0 | 0.0 |
| 351 | 0.0 | 0.0 |
| 352 | 0.0 | 0.0 |
| 353 | 0.0 | 0.0 |
| 354 | 0.0 | 0.0 |
| 355 | 0.0 | 0.0 |
| 356 | 0.0 | 0.0 |
| 357 | 0.0 | 0.0 |
| 358 | 0.0 | 0.0 |
| 359 | 0.0 | 0.0 |
| 360 | 0.0 | 0.0 |
| 361 | 0.0 | 0.0 |
| 362 | 0.0 | 0.0 |
| 363 | 0.0 | 0.0 |
| 364 | 0.0 | 0.0 |
| 365 | 0.0 | 0.0 |
| 366 | 0.0 | 0.0 |
| 367 | 0.0 | 0.0 |
| 368 | 0.0 | 0.0 |
| 369 | 0.0 | 0.0 |
| 370 | 0.0 | 0.0 |
| 371 | 0.0 | 0.0 |
| 372 | 0.0 | 0.0 |
| 373 | 0.0 | 0.0 |
| 374 | 0.0 | 0.0 |
| 375 | 0.0 | 0.0 |
| 376 | 0.0 | 0.0 |
| 377 | 0.0 | 29.59 |
| 378 | −1.50 | 87.46 |
| 379 | 8.88 | 100.00 |
| 380 | 46.04 | 100.00 |
| 381 | 76.88 | 100.00 |
| 382 | 80.00 | 100.00 |
| 383 | 82.14 | 94.64 |
| 384 | 85.39 | 83.07 |
| 385 | 87.70 | 80.51 |
| 386 | 92.00 | 79.83 |
| 387 | 92.00 | 61.66 |
| 388 | 94.58 | 66.77 |
| 389 | 102.88 | 60.00 |
| 390 | 106.00 | 72.76 |
| 391 | 109.18 | 8.43 |
| 392 | 111.91 | (1) |
| 393 | 82.00 | (1) |
| 394 | 79.33 | (1) |
| 395 | 71.15 | (1) |
| 396 | 68.84 | (1) |
| 397 | 78.35 | 49.17 |
| 398 | 82.00 | 70.00 |
| 399 | 80.65 | 69.46 |
| 400 | 92.85 | 60.00 |
| 401 | 97.48 | 60.00 |
| 402 | 98.95 | 60.00 |
| 403 | 100.74 | 60.00 |
| 404 | 103.68 | 43.17 |
| 405 | 104.00 | 10.04 |
| 406 | 80.62 | 20.00 |
| 407 | 83.37 | 20.00 |
| 408 | 81.06 | 15.29 |
| 409 | 80.00 | 10.00 |
| 410 | 76.86 | (1) |
| 411 | 74.11 | (1) |
| 412 | 71.60 | (1) |
| 413 | 70.58 | (1) |
| 414 | 78.00 | (1) |
| 415 | 80.29 | 1.45 |
| 416 | 80.54 | 17.30 |
| 417 | 78.23 | 11.13 |
| 418 | 78.45 | 19.55 |
| 419 | 84.36 | 24.16 |
| 420 | 72.16 | 80.00 |
| 421 | 79.10 | 74.63 |
| 422 | 90.09 | 18.04 |
| 423 | 74.04 | (1) |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 424 | 68.02 | (1) |
| 425 | 66.53 | (1) |
| 426 | 59.39 | (1) |
| 427 | 63.54 | (1) |
| 428 | 70.00 | 2.38 |
| 429 | 73.10 | 17.76 |
| 430 | 72.13 | (1) |
| 431 | 67.27 | (1) |
| 432 | 36.03 | (1) |
| 433 | 20.75 | (1) |
| 434 | 11.49 | (1) |
| 435 | −2.09 | 0.0 |
| 436 | −0.73 | 0.0 |
| 437 | 8.57 | 60.00 |
| 438 | 30.55 | 61.93 |
| 439 | 67.10 | 63.00 |
| 440 | 86.03 | 39.85 |
| 441 | 89.33 | 30.00 |
| 442 | 91.64 | 30.00 |
| 443 | 97.88 | 10.40 |
| 444 | 97.73 | 1.37 |
| 445 | 96.00 | 10.00 |
| 446 | 96.00 | 0.96 |
| 447 | 96.00 | (1) |
| 448 | 85.27 | 28.34 |
| 449 | 87.54 | 30.76 |
| 450 | 86.16 | 29.18 |
| 451 | 88.00 | 20.00 |
| 452 | 87.21 | 20.00 |
| 453 | 86.00 | 20.00 |
| 454 | 87.42 | 20.00 |
| 455 | 88.00 | 11.32 |
| 456 | 77.84 | (1) |
| 457 | 72.00 | (1) |
| 458 | 71.32 | (1) |
| 459 | 70.00 | 0.84 |
| 460 | 70.00 | (1) |
| 461 | 74.88 | (1) |
| 462 | 74.06 | (1) |
| 463 | 67.74 | (1) |
| 464 | 66.00 | (1) |
| 465 | 64.23 | (1) |
| 466 | 62.00 | (1) |
| 467 | 55.94 | (1) |
| 468 | 54.00 | (1) |
| 469 | 66.43 | (1) |
| 470 | 75.21 | 70.00 |
| 471 | 96.00 | 54.53 |
| 472 | 86.00 | 24.56 |
| 473 | 88.81 | (1) |
| 474 | 90.00 | (1) |
| 475 | 105.48 | (1) |
| 476 | 74.00 | (1) |
| 477 | 73.34 | (1) |
| 478 | 71.02 | 10.00 |
| 479 | 76.46 | 29.38 |
| 480 | 81.61 | 40.00 |
| 481 | 78.16 | 30.39 |
| 482 | 74.13 | 26.46 |
| 483 | 90.00 | 0.0 |
| 484 | 90.87 | 0.0 |
| 485 | 92.00 | (1) |
| 486 | 93.50 | (1) |
| 487 | 94.00 | (1) |
| 488 | 94.13 | (1) |
| 489 | 88.96 | (1) |
| 490 | 63.25 | (1) |
| 491 | 62.00 | (1) |
| 492 | 49.54 | 45.37 |
| 493 | 52.49 | 86.99 |
| 494 | 64.00 | 90.00 |
| 495 | 64.99 | 90.00 |
| 496 | 71.93 | 93.22 |
| 497 | 78.87 | 95.21 |
| 498 | 82.00 | 83.64 |
| 499 | 86.76 | 80.00 |
| 500 | 93.71 | 80.00 |
| 501 | 94.87 | 80.00 |
| 502 | 103.60 | 80.00 |
| 503 | 101.23 | 41.89 |
| 504 | 95.48 | 24.65 |
| 505 | 98.00 | 50.00 |
| 506 | 99.79 | 50.00 |
| 507 | 106.21 | 46.82 |
| 508 | 110.84 | (1) |
| 509 | 98.55 | (1) |
| 510 | 70.95 | (1) |
| 511 | 67.27 | (1) |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 512 | 60.96 | (1) |
| 513 | 48.03 | (1) |
| 514 | 52.31 | (1) |
| 515 | 54.00 | (1) |
| 516 | 65.27 | (1) |
| 517 | 78.00 | (1) |
| 518 | 57.61 | (1) |
| 519 | 42.58 | (1) |
| 520 | 38.81 | (1) |
| 521 | 22.37 | (1) |
| 522 | 3.52 | (1) |
| 523 | 0.0 | 0.0 |
| 524 | −1.46 | 36.39 |
| 525 | −0.23 | 5.75 |
| 526 | 0.0 | 0.0 |
| 527 | 0.0 | 0.0 |
| 528 | 0.0 | 0.0 |
| 529 | 0.0 | 0.0 |
| 530 | 0.0 | 0.0 |
| 531 | 0.0 | 0.0 |
| 532 | 0.0 | 0.0 |
| 533 | 0.0 | 0.0 |
| 534 | 0.0 | 0.0 |
| 535 | 0.0 | 0.0 |
| 536 | 0.0 | 0.0 |
| 537 | 0.0 | 0.0 |
| 538 | 0.0 | 0.0 |
| 539 | 0.0 | 0.0 |
| 540 | 0.0 | 0.0 |
| 541 | 0.0 | 0.0 |
| 542 | 0.0 | 0.0 |
| 543 | 0.0 | 0.0 |
| 544 | 0.0 | (1) |
| 545 | 0.0 | 0.0 |
| 546 | −0.75 | 0.0 |
| 547 | −0.56 | 0.0 |
| 548 | 4.00 | (1) |
| 549 | 0.68 | (1) |
| 550 | 0.0 | 0.0 |
| 551 | 0.0 | 0.0 |
| 552 | 0.0 | 2.80 |
| 553 | 0.0 | 20.00 |
| 554 | 0.0 | 20.00 |
| 555 | 0.0 | 7.96 |
| 556 | 0.0 | 0.0 |
| 557 | 0.0 | 0.0 |
| 558 | 0.0 | 78.53 |
| 559 | 1.85 | 60.00 |
| 560 | 11.10 | 63.88 |
| 561 | 16.00 | 70.00 |
| 562 | 30.05 | 70.00 |
| 563 | 42.88 | 70.00 |
| 564 | 56.10 | 70.00 |
| 565 | 63.39 | 66.52 |
| 566 | 70.66 | 59.94 |
| 567 | 72.98 | 80.00 |
| 568 | 77.87 | 86.46 |
| 569 | 88.03 | 90.00 |
| 570 | 90.00 | 90.00 |
| 571 | 92.23 | 100.00 |
| 572 | 94.00 | 100.00 |
| 573 | 94.86 | 100.00 |
| 574 | 96.00 | 100.00 |
| 575 | 97.49 | 100.00 |
| 576 | 106.84 | 100.00 |
| 577 | 110.00 | 83.92 |
| 578 | 104.77 | (1) |
| 579 | 87.50 | (1) |
| 580 | 90.00 | 0.0 |
| 581 | 91.38 | (1) |
| 582 | 81.84 | (1) |
| 583 | 65.99 | (1) |
| 584 | 63.68 | (1) |
| 585 | 60.73 | (1) |
| 586 | 57.05 | (1) |
| 587 | 53.47 | (1) |
| 588 | 50.42 | (1) |
| 589 | 44.31 | (1) |
| 590 | 37.58 | 37.91 |
| 591 | 33.48 | 20.00 |
| 592 | 31.16 | 20.00 |
| 593 | 26.85 | 20.00 |
| 594 | 22.13 | 20.00 |
| 595 | 9.31 | (1) |
| 596 | 0.0 | 0.0 |
| 597 | 0.0 | 0.0 |
| 598 | 0.0 | 0.0 |
| 599 | 0.0 | 0.0 |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 600 | 0.0 | 0.0 |
| 601 | 0.0 | 0.0 |
| 602 | 0.0 | 0.0 |
| 603 | 0.0 | 0.0 |
| 604 | 0.0 | 0.0 |
| 605 | 0.0 | 0.0 |
| 606 | 2.52 | 6.30 |
| 607 | 10.30 | 17.87 |
| 608 | 13.89 | 20.00 |
| 609 | 20.20 | 20.00 |
| 610 | 24.07 | 22.59 |
| 611 | 33.33 | 17.50 |
| 612 | 40.30 | (1) |
| 613 | 47.85 | (1) |
| 614 | 66.00 | 7.78 |
| 615 | 68.00 | 10.93 |
| 616 | 67.59 | 32.04 |
| 617 | 66.00 | 40.00 |
| 618 | 67.04 | 40.00 |
| 619 | 68.00 | 40.00 |
| 620 | 68.00 | 48.39 |
| 621 | 75.93 | 99.53 |
| 622 | 78.00 | 100.00 |
| 623 | 78.00 | 100.00 |
| 624 | 77.07 | 100.00 |
| 625 | 76.00 | 100.00 |
| 626 | 76.00 | 100.00 |
| 627 | 76.00 | 100.00 |
| 628 | 75.63 | 100.00 |
| 629 | 73.00 | 97.50 |
| 630 | 76.81 | 90.00 |
| 631 | 80.26 | 90.00 |
| 632 | 83.44 | 90.00 |
| 633 | 84.00 | 98.79 |
| 634 | 84.00 | 100.00 |
| 635 | 83.61 | 100.00 |
| 636 | 82.00 | 100.00 |
| 637 | 83.02 | 94.91 |
| 638 | 86.67 | 90.00 |
| 639 | 89.65 | 90.00 |
| 640 | 90.00 | 99.81 |
| 641 | 89.45 | 100.00 |
| 642 | 86.00 | 100.00 |
| 643 | 86.00 | 95.47 |
| 644 | 87.22 | 90.00 |
| 645 | 88.00 | 90.00 |
| 646 | 88.00 | 80.74 |
| 647 | 88.00 | 79.17 |
| 648 | 88.00 | 77.21 |
| 649 | 88.00 | 100.00 |
| 650 | 88.00 | 94.45 |
| 651 | 88.00 | 90.00 |
| 652 | 88.00 | 90.00 |
| 653 | 90.00 | 90.00 |
| 654 | 89.63 | 90.00 |
| 655 | 88.68 | 90.00 |
| 656 | 90.00 | 90.00 |
| 657 | 90.00 | 90.00 |
| 658 | 91.63 | 81.86 |
| 659 | 92.00 | 80.00 |
| 660 | 90.00 | 81.29 |
| 661 | 89.43 | 92.86 |
| 662 | 87.11 | 100.00 |
| 663 | 86.00 | 100.00 |
| 664 | 86.00 | 100.00 |
| 665 | 89.66 | 100.00 |
| 666 | 90.00 | 99.27 |
| 667 | 90.46 | 90.00 |
| 668 | 92.78 | 90.00 |
| 669 | 95.09 | 90.00 |
| 670 | 100.22 | 82.97 |
| 671 | 102.00 | 80.00 |
| 672 | 102.00 | 70.18 |
| 673 | 102.00 | 80.00 |
| 674 | 97.34 | 50.07 |
| 675 | 87.02 | (1) |
| 676 | 86.00 | (1) |
| 677 | 73.12 | 22.19 |
| 678 | 75.77 | 39.62 |
| 679 | 75.76 | 48.80 |
| 680 | 75.11 | 37.23 |
| 681 | 78.00 | 34.34 |
| 682 | 80.37 | 40.00 |
| 683 | 77.51 | 47.49 |
| 684 | 81.44 | 50.00 |
| 685 | 82.13 | 39.36 |
| 686 | 84.00 | 27.79 |
| 687 | 84.00 | 16.21 |

**(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 688 | 84.00 | 15.36 |
| 689 | 85.39 | 26.93 |
| 690 | 86.00 | 30.00 |
| 691 | 86.00 | 30.08 |
| 692 | 85.67 | 40.00 |
| 693 | 84.65 | 40.00 |
| 694 | 86.00 | 35.20 |
| 695 | 87.28 | 30.00 |
| 696 | 88.00 | 22.05 |
| 697 | 86.09 | (1) |
| 698 | 83.78 | (1) |
| 699 | 81.47 | (1) |
| 700 | 81.70 | (1) |
| 701 | 85.16 | (1) |
| 702 | 84.52 | (1) |
| 703 | 82.21 | (1) |
| 704 | 79.89 | (1) |
| 705 | 77.58 | (1) |
| 706 | 76.00 | 6.31 |
| 707 | 79.16 | 0.0 |
| 708 | 75.16 | 27.36 |
| 709 | 72.00 | 40.00 |
| 710 | 72.00 | 40.00 |
| 711 | 74.00 | 38.44 |
| 712 | 74.00 | 30.00 |
| 713 | 74.00 | 30.00 |
| 714 | 74.00 | 36.28 |
| 715 | 72.43 | 47.86 |
| 716 | 68.23 | 59.43 |
| 717 | 73.80 | 50.00 |
| 718 | 72.52 | 50.00 |
| 719 | 74.00 | 45.85 |
| 720 | 72.85 | 57.18 |
| 721 | 76.38 | 62.70 |
| 722 | 81.55 | 60.00 |
| 723 | 80.18 | 60.00 |
| 724 | 83.60 | 60.00 |
| 725 | 83.44 | 56.40 |
| 726 | 86.00 | 50.00 |
| 727 | 87.35 | 50.00 |
| 728 | 86.34 | 50.00 |
| 729 | 86.00 | 40.11 |
| 730 | 88.29 | 61.47 |
| 731 | 88.78 | 63.92 |
| 732 | 88.92 | 50.00 |
| 733 | 86.76 | 50.00 |
| 734 | 87.55 | 42.24 |
| 735 | 88.00 | 49.34 |
| 736 | 86.00 | 50.91 |
| 737 | 86.00 | 67.45 |
| 738 | 86.00 | 81.88 |
| 739 | 87.13 | 70.00 |
| 740 | 89.44 | 77.21 |
| 741 | 91.76 | 88.78 |
| 742 | 90.07 | 89.65 |
| 743 | 92.00 | 80.00 |
| 744 | 92.70 | 80.00 |
| 745 | 94.00 | 80.00 |
| 746 | 94.00 | 80.00 |
| 747 | 94.00 | 80.00 |
| 748 | 94.00 | 80.00 |
| 749 | 94.00 | 81.37 |
| 750 | 94.59 | 87.05 |
| 751 | 96.00 | 57.40 |
| 752 | 96.00 | 42.19 |
| 753 | 96.00 | 42.33 |
| 754 | 96.00 | 40.00 |
| 755 | 96.00 | 38.37 |
| 756 | 96.00 | 12.83 |
| 757 | 96.00 | (1) |
| 758 | 96.00 | (1) |
| 759 | 96.00 | (1) |
| 760 | 97.74 | 7.37 |
| 761 | 100.05 | 19.74 |
| 762 | 102.00 | 11.83 |
| 763 | 102.00 | 26.81 |
| 764 | 103.00 | 49.96 |
| 765 | 104.00 | 60.00 |
| 766 | 102.37 | 60.00 |
| 767 | 103.94 | 60.00 |
| 768 | 104.00 | 40.00 |
| 769 | 104.00 | 25.75 |
| 770 | 103.12 | (1) |
| 771 | 100.80 | (1) |
| 772 | 100.00 | (1) |
| 773 | 101.83 | 44.88 |
| 774 | 102.00 | 36.40 |
| 775 | 102.00 | (1) |

**(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 776 | 102.00 | (1) |
| 777 | 100.91 | (1) |
| 778 | 101.40 | (1) |
| 779 | 100.28 | (1) |
| 780 | 97.97 | (1) |
| 781 | 96.00 | (1) |
| 782 | 96.00 | 10.00 |
| 783 | 96.00 | 0.23 |
| 784 | 96.00 | (1) |
| 785 | 96.00 | (1) |
| 786 | 94.08 | (1) |
| 787 | 78.00 | (1) |
| 788 | 77.45 | (1) |
| 789 | 71.67 | 28.96 |
| 790 | 67.18 | 80.00 |
| 791 | 66.50 | 87.48 |
| 792 | 71.43 | 90.00 |
| 793 | 74.13 | 90.00 |
| 794 | 75.56 | 92.20 |
| 795 | 74.75 | 100.00 |
| 796 | 77.07 | 94.65 |
| 797 | 79.38 | 83.08 |
| 798 | 80.00 | 71.51 |
| 799 | 80.01 | 69.93 |
| 800 | 82.33 | 58.36 |
| 801 | 84.00 | 50.00 |
| 802 | 84.00 | 59.58 |
| 803 | 84.00 | 76.36 |
| 804 | 84.00 | 80.00 |
| 805 | 84.00 | 70.49 |
| 806 | 82.00 | 80.00 |
| 807 | 81.47 | 82.66 |
| 808 | 80.00 | 90.00 |
| 809 | 77.68 | 90.00 |
| 810 | 74.52 | 75.24 |
| 811 | 77.58 | 78.96 |
| 812 | 81.89 | 80.00 |
| 813 | 80.42 | 80.00 |
| 814 | 82.00 | 83.68 |
| 815 | 83.05 | 79.50 |
| 816 | 84.00 | 70.00 |
| 817 | 84.00 | 61.60 |
| 818 | 84.00 | 50.03 |
| 819 | 86.00 | 60.00 |
| 820 | 86.00 | 60.00 |
| 821 | 86.00 | 69.39 |
| 822 | 88.51 | 73.73 |
| 823 | 88.43 | 70.00 |
| 824 | 88.00 | 70.00 |
| 825 | 94.00 | 70.99 |
| 826 | 94.51 | 80.00 |
| 827 | 95.17 | 80.00 |
| 828 | 95.14 | 80.00 |
| 829 | 94.54 | 80.00 |
| 830 | 94.00 | 80.00 |
| 831 | 94.00 | 77.89 |
| 832 | 94.00 | 31.99 |
| 833 | 94.00 | 43.57 |
| 834 | 94.00 | 60.28 |
| 835 | 94.00 | 63.29 |
| 836 | 94.00 | 76.57 |
| 837 | 94.00 | 89.86 |
| 838 | 94.29 | 90.00 |
| 839 | 97.80 | 87.00 |
| 840 | 102.91 | 80.00 |
| 841 | 104.00 | 73.85 |
| 842 | 104.00 | 62.28 |
| 843 | 104.00 | 69.29 |
| 844 | 106.00 | 70.00 |
| 845 | 106.00 | 62.70 |
| 846 | 106.00 | 40.00 |
| 847 | 104.88 | 40.00 |
| 848 | 104.00 | 32.85 |
| 849 | 104.00 | 30.00 |
| 850 | 104.00 | 0.30 |
| 851 | 103.63 | 11.87 |
| 852 | 100.62 | 13.12 |
| 853 | 98.00 | 5.01 |
| 854 | 96.68 | 10.00 |
| 855 | 96.00 | (1) |
| 856 | 96.00 | (1) |
| 857 | 96.00 | (1) |
| 858 | 95.43 | (1) |
| 859 | 94.00 | (1) |
| 860 | 94.00 | (1) |
| 861 | 95.52 | 5.18 |
| 862 | 97.83 | (1) |
| 863 | 98.00 | (1) |

**(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued**

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 864 | 98.00 | (1) |
| 865 | 97.22 | (1) |
| 866 | 96.00 | 6.35 |
| 867 | 96.00 | 12.98 |
| 868 | 96.00 | 10.00 |
| 869 | 95.93 | 10.00 |
| 870 | 92.00 | 10.00 |
| 871 | 92.00 | 10.00 |
| 872 | 92.98 | 14.89 |
| 873 | 94.00 | 13.54 |
| 874 | 90.79 | 42.12 |
| 875 | 88.08 | 40.40 |
| 876 | 86.23 | 30.00 |
| 877 | 88.00 | 32.75 |
| 878 | 87.14 | 44.32 |
| 879 | 84.82 | 50.00 |
| 880 | 82.51 | 50.00 |
| 881 | 82.00 | 50.00 |
| 882 | 82.12 | 40.00 |
| 883 | 83.13 | 35.64 |
| 884 | 80.00 | 20.00 |
| 885 | 84.26 | 51.95 |
| 886 | 86.62 | 66.21 |
| 887 | 84.31 | 60.00 |
| 888 | 81.99 | 9.96 |
| 889 | 79.35 | 1.61 |
| 890 | 75.36 | 19.56 |
| 891 | 73.05 | 40.00 |
| 892 | 70.73 | 8.35 |
| 893 | 68.42 | (1) |
| 894 | 47.15 | 8.95 |
| 895 | 35.79 | 10.00 |
| 896 | 32.95 | 7.38 |
| 897 | 29.16 | (1) |
| 898 | 16.47 | (1) |
| 899 | 2.13 | (1) |
| 900 | 0.0 | 0.0 |
| 901 | 0.0 | 0.0 |
| 902 | 0.0 | 0.0 |
| 903 | 0.0 | 0.0 |
| 904 | 0.0 | 0.0 |
| 905 | 0.0 | 0.0 |
| 906 | 0.0 | 0.0 |
| 907 | 0.0 | 0.0 |
| 908 | 0.0 | 0.0 |
| 909 | 0.0 | 0.0 |
| 910 | 0.0 | 0.0 |
| 911 | 0.0 | 0.0 |
| 912 | 0.0 | 0.0 |
| 913 | 0.0 | 0.0 |
| 914 | 0.0 | 0.0 |
| 915 | 0.0 | 0.0 |
| 916 | 0.0 | 0.0 |
| 917 | 0.0 | 0.0 |
| 918 | 0.0 | 0.0 |
| 919 | 0.0 | 0.0 |
| 920 | 0.0 | 0.0 |
| 921 | 0.0 | 0.0 |
| 922 | 0.0 | 0.0 |
| 923 | 0.0 | 0.0 |
| 924 | 0.0 | 0.0 |
| 925 | 0.0 | 0.0 |
| 926 | 0.0 | 0.0 |
| 927 | 0.0 | 3.67 |
| 928 | 0.0 | 47.69 |
| 929 | 3.11 | 59.41 |
| 930 | 9.09 | 84.54 |
| 931 | 15.62 | 80.00 |
| 932 | 33.49 | 80.00 |
| 933 | 37.93 | 79.29 |
| 934 | 31.20 | 38.25 |
| 935 | 21.99 | 26.67 |
| 936 | 30.00 | 15.10 |
| 937 | 22.23 | 16.47 |
| 938 | 19.61 | 28.05 |
| 939 | 20.00 | 20.38 |
| 940 | 18.33 | (1) |
| 941 | 6.55 | (1) |
| 942 | 15.82 | (1) |
| 943 | 23.63 | (1) |
| 944 | 17.51 | (1) |
| 945 | 14.19 | 62.52 |
| 946 | 16.64 | 69.36 |
| 947 | 27.77 | 60.00 |
| 948 | 37.03 | 63.79 |
| 949 | 47.36 | 75.36 |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 950 | 54.77 | 80.00 |
| 951 | 54.70 | 80.00 |
| 952 | 54.03 | 79.92 |
| 953 | 58.00 | 65.03 |
| 954 | 58.65 | 43.23 |
| 955 | 62.68 | 50.00 |
| 956 | 69.83 | 50.00 |
| 957 | 72.00 | 42.05 |
| 958 | 75.81 | 40.00 |
| 959 | 84.22 | 42.20 |
| 960 | 83.86 | 41.28 |
| 961 | 80.55 | (1) |
| 962 | 80.51 | (1) |
| 963 | 78.00 | (1) |
| 964 | 79.79 | (1) |
| 965 | 80.33 | 30.54 |
| 966 | 85.58 | 42.12 |
| 967 | 81.78 | 50.00 |
| 968 | 78.00 | 50.00 |
| 969 | 80.74 | 43.16 |
| 970 | 92.10 | 73.65 |
| 971 | 88.01 | (1) |
| 972 | 84.00 | (1) |
| 973 | 84.00 | (1) |
| 974 | 81.17 | (1) |
| 975 | 70.46 | (1) |
| 976 | 66.00 | 13.57 |
| 977 | 62.23 | 29.43 |
| 978 | 64.00 | 20.00 |
| 979 | 63.48 | 17.42 |
| 980 | 60.34 | 10.00 |
| 981 | 56.85 | 10.00 |
| 982 | 56.00 | (1) |
| 983 | 52.45 | (1) |
| 984 | 39.91 | 10.00 |
| 985 | 36.38 | 10.00 |
| 986 | 30.00 | 10.00 |
| 987 | 27.93 | 10.00 |
| 988 | 26.00 | 16.74 |
| 989 | 27.66 | 3.36 |
| 990 | 28.00 | (1) |
| 991 | 27.41 | (1) |
| 992 | 20.96 | (1) |
| 993 | 12.15 | (1) |
| 994 | 3.81 | (1) |
| 995 | 0.0 | 0.0 |
| 996 | 0.0 | 0.0 |
| 997 | 0.0 | 0.91 |
| 998 | 0.0 | 7.52 |
| 999 | 0.0 | 0.0 |
| 1000 | 0.0 | 0.0 |
| 1001 | 0.0 | 0.0 |
| 1002 | 0.0 | 0.0 |
| 1003 | 0.0 | 0.0 |
| 1004 | 0.0 | 0.0 |
| 1005 | 0.0 | 0.0 |
| 1006 | 0.0 | 0.0 |
| 1007 | 0.0 | 0.0 |
| 1008 | 0.0 | 0.0 |
| 1009 | 0.0 | 0.0 |
| 1010 | 0.0 | 0.0 |
| 1011 | 0.0 | 0.0 |
| 1012 | 0.0 | 0.0 |
| 1013 | 0.0 | 0.0 |
| 1014 | 0.0 | 0.0 |
| 1015 | 0.0 | 0.0 |
| 1016 | 0.0 | 0.0 |
| 1017 | 0.0 | 0.0 |
| 1018 | 0.0 | 0.0 |
| 1019 | 0.0 | 0.0 |
| 1020 | 0.0 | 0.0 |
| 1021 | 0.0 | 0.0 |
| 1022 | 0.0 | 0.0 |
| 1023 | 0.0 | 0.0 |
| 1024 | 0.0 | 0.0 |
| 1025 | 0.0 | 0.0 |
| 1026 | 0.0 | 0.0 |
| 1027 | 0.0 | 0.0 |
| 1028 | 0.0 | 0.0 |
| 1029 | 0.0 | 0.0 |
| 1030 | 0.0 | 0.0 |
| 1031 | 1.77 | (1) |
| 1032 | 1.60 | (1) |
| 1033 | 0.0 | 0.0 |
| 1034 | 0.0 | 0.0 |
| 1035 | 2.14 | 9.28 |
| 1036 | 3.08 | 0.0 |
| 1037 | 0.0 | 0.0 |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 1038 | 0.0 | 0.0 |
| 1039 | 0.0 | 0.0 |
| 1040 | 0.0 | 0.0 |
| 1041 | 0.0 | 0.0 |
| 1042 | 0.0 | 0.0 |
| 1043 | 0.0 | 0.0 |
| 1044 | 0.0 | 0.0 |
| 1045 | 0.0 | 0.0 |
| 1046 | 0.0 | 0.0 |
| 1047 | 0.0 | 0.0 |
| 1048 | 0.0 | 0.0 |
| 1049 | 0.0 | 5.51 |
| 1050 | 0.0 | 11.34 |
| 1051 | 0.0 | 0.0 |
| 1052 | 0.0 | 0.0 |
| 1053 | 0.0 | 0.0 |
| 1054 | 0.0 | 0.0 |
| 1055 | 0.0 | 0.0 |
| 1056 | 0.0 | 0.0 |
| 1057 | 0.0 | 0.0 |
| 1058 | 0.0 | 0.0 |
| 1059 | 0.0 | 0.0 |
| 1060 | 0.0 | 0.21 |
| 1061 | 0.0 | 30.00 |
| 1062 | 0.0 | 26.78 |
| 1063 | 0.0 | 20.00 |
| 1064 | 0.0 | 20.00 |
| 1065 | 0.0 | 4.12 |
| 1066 | 0.0 | 0.0 |
| 1067 | 0.0 | 0.0 |
| 1068 | 0.0 | 0.0 |
| 1069 | 0.0 | 0.0 |
| 1070 | 0.0 | 0.0 |
| 1071 | 0.0 | 0.0 |
| 1072 | 0.0 | 0.0 |
| 1073 | 0.0 | 0.0 |
| 1074 | 0.0 | 0.0 |
| 1075 | 0.0 | 0.0 |
| 1076 | 0.0 | 0.0 |
| 1077 | 0.0 | 0.0 |
| 1078 | 0.0 | 0.0 |
| 1079 | 0.0 | 0.0 |
| 1080 | 0.0 | 0.0 |
| 1081 | 0.0 | 0.0 |
| 1082 | 0.0 | 0.0 |
| 1083 | 0.0 | 0.0 |
| 1084 | 0.0 | 0.0 |
| 1085 | 0.0 | 0.0 |
| 1086 | 0.0 | 20.00 |
| 1087 | 0.0 | 20.00 |
| 1088 | 0.0 | 11.73 |
| 1089 | 0.0 | 0.0 |
| 1090 | 0.0 | 0.0 |
| 1091 | 0.0 | 0.0 |
| 1092 | 0.0 | 0.0 |
| 1093 | 0.0 | 0.0 |
| 1094 | 0.0 | 0.0 |
| 1095 | 0.0 | 0.0 |
| 1096 | 0.0 | 0.0 |
| 1097 | 0.0 | 0.0 |
| 1098 | 0.0 | 0.0 |
| 1099 | 0.0 | 0.0 |
| 1100 | 0.0 | 0.0 |
| 1101 | 0.0 | 0.0 |
| 1102 | 0.0 | 0.0 |
| 1103 | 0.0 | 0.0 |
| 1104 | 0.0 | 0.0 |
| 1105 | 0.0 | 0.0 |
| 1106 | 0.0 | 0.0 |
| 1107 | 0.0 | 0.0 |
| 1108 | 0.0 | 0.0 |
| 1109 | 0.0 | 0.0 |
| 1110 | 0.0 | 0.0 |
| 1111 | 0.0 | 0.0 |
| 1112 | 0.0 | 0.0 |
| 1113 | 0.0 | 0.0 |
| 1114 | 0.0 | 0.0 |
| 1115 | 0.0 | 0.0 |
| 1116 | 0.0 | 73.41 |
| 1117 | 0.0 | 90.00 |
| 1118 | 31.30 | 81.30 |
| 1119 | 41.15 | 90.00 |
| 1120 | 44.00 | 90.00 |
| 1121 | 48.41 | 90.00 |
| 1122 | 51.04 | 82.41 |
| 1123 | 66.66 | 80.00 |
| 1124 | 75.03 | 90.00 |
| 1125 | 89.85 | 90.00 |

(1) Diesel Engine Percent Revolutions per Minute and Percent Torque Versus Time Sequence—Continued

| Record (sec) | Revolutions per min | Torque |
|---|---|---|
| 1126 | 96.78 | 93.88 |
| 1127 | 96.91 | 50.94 |
| 1128 | 94.89 | 17.02 |
| 1129 | 99.16 | 28.60 |
| 1130 | 100.00 | 39.83 |
| 1131 | 100.00 | 30.00 |
| 1132 | 100.00 | 26.69 |
| 1133 | 100.98 | 20.00 |
| 1134 | 100.71 | 20.00 |
| 1135 | 100.00 | 36.06 |
| 1136 | 96.16 | 40.00 |
| 1137 | 95.77 | 30.00 |
| 1138 | 94.55 | 32.75 |
| 1139 | 96.86 | 35.68 |
| 1140 | 99.18 | 30.00 |
| 1141 | 100.00 | 44.93 |
| 1142 | 101.81 | 50.00 |
| 1143 | 86.54 | (1) |
| 1144 | 63.56 | (1) |
| 1145 | 56.00 | (1) |
| 1146 | 46.00 | (1) |
| 1147 | 41.86 | 45.18 |
| 1148 | 38.31 | 78.47 |
| 1149 | 35.98 | 80.00 |
| 1150 | 31.03 | 80.00 |
| 1151 | 25.36 | 80.00 |
| 1152 | 23.05 | 60.97 |
| 1153 | 18.20 | 27.34 |
| 1154 | 12.84 | 43.71 |
| 1155 | 10.10 | 68.95 |
| 1156 | 3.79 | 68.95 |
| 1157 | 1.48 | 44.28 |
| 1158 | 0.0 | 0.0 |
| 1159 | 0.0 | 0.0 |
| 1160 | 0.0 | 0.0 |
| 1161 | 0.0 | 0.0 |
| 1162 | 0.0 | 0.0 |
| 1163 | 0.0 | 0.0 |
| 1164 | 0.0 | 0.0 |
| 1165 | 0.0 | 24.97 |
| 1166 | 0.0 | 17.16 |
| 1167 | 0.0 | 6.20 |
| 1168 | 0.0 | 10.00 |
| 1169 | 0.0 | 10.00 |
| 1170 | 0.0 | 0.0 |
| 1171 | 0.0 | 0.0 |
| 1172 | 0.0 | 0.0 |
| 1173 | 0.0 | 0.0 |
| 1174 | 0.0 | 0.0 |
| 1175 | 0.0 | 0.0 |
| 1176 | 0.0 | 0.0 |
| 1177 | 0.0 | 0.0 |
| 1178 | 0.0 | 0.0 |
| 1179 | 0.0 | 0.0 |
| 1180 | 0.0 | 0.0 |
| 1181 | 0.0 | 0.0 |
| 1182 | 0.0 | 0.0 |
| 1183 | 0.0 | 0.0 |
| 1184 | 0.0 | 0.0 |
| 1185 | 0.0 | 0.0 |
| 1186 | 0.0 | 0.0 |
| 1187 | 0.0 | 0.0 |
| 1188 | 0.0 | 0.0 |
| 1189 | 0.0 | 0.0 |
| 1190 | 0.0 | 0.0 |
| 1191 | 0.0 | 0.0 |
| 1192 | 0.0 | 0.0 |
| 1193 | 0.0 | 0.0 |
| 1194 | 0.0 | 0.0 |
| 1195 | 0.0 | 0.0 |
| 1196 | 0.0 | 0.0 |
| 1197 | 0.0 | 0.0 |
| 1198 | 0.0 | 0.0 |
| 1199 | 0.0 | 0.0 |

[1] Closed Rack.

26. New Subpart P—Emission Regulations for New Gasoline-Fueled Heavy-Duty Engines and Vehicles; Idle Test Procedures—is added to read as set forth below.

**Subpart P—Emission Regulations for New Gasoline-Fueled Heavy-Duty Engines and Vehicles; Idle Test Procedures**

Sec.

86.1501–84 Scope; applicability.
86.1502–84 Definitions.
86.1503–84 Abbreviations.
86.1504–84 Section numbering; construction.
86.1505–84 Introduction; structure of subpart.
86.1506–84 Equipment required and specifications; overview.
86.1507–84—86.1508–84 [Reserved]
86.1509–84 Exhaust gas sampling system.
86.1510–84 [Reserved]
86.1511–84 Exhaust gas analysis system.
86.1512–84 [Reserved]
86.1513–84 Fuel specifications.
86.1514–84 Analytical gases.
86.1515–84 [Reserved]
86.1516–84 Calibration; frequency and overview.
86.1517–84—86.1518–84 [Reserved]
86.1519–84 CVS calibration.
86.1520–84—86.1521–84 [Reserved]
86.1522–84 Carbon monoxide analyzer calibration.
86.1523–84 [Reserved]
86.1524–84 Carbon dioxide analyzer calibration.
86.1525–84 [Reserved]
86.1526–84 Calibration of other equipment.
86.1527–84 Idle test procedure; overview.
86.1528–84—86.1529–84 [Reserved]
86.1530–84 Test sequence: general requirements.
86.1531–84—86.1536–84 [Reserved]
86.1537–84 Idle test run.
86.1538–84—86.1539–84 [Reserved]
86.1540–84 Idle exhaust sample analysis.
86.1541–84 [Reserved]
86.1542–84 Information required.
86.1543–84 [Reserved]
86.1544–84 Calculations; idle exhaust emissions.

Authority.—Secs. 202, 206, 207, 208, 301(a) of the Clean Air Act, as amended (42 U.S.C. 7521, 7525, 7541, 7542, and 7601.

**Subpart P—Emission Regulations for New Gasoline-Fueled Heavy-Duty Engines and Vehicles; Idle Test Procedures**

**§ 86.1501–84 Scope; applicability.**

This subpart contains gaseous emission idle test procedures for heavy-duty gasoline-fueled engines and vehicles. It applies to 1984 and later model years.

**§ 86.1502–84 Definitions.**

The definitions in § 86.084–2 apply to this subpart.

**§ 86.1503–84 Abbreviations.**

The abbreviations in § 86.084–3 apply to this subpart.

**§ 86.1504–84 Section numbering; construction.**

(a) The model year of initial applicability is indicated by the section number. The two digits following the hyphen designate the first model year for which a section is effective. A section remains effective until superseded.

*Example:* Section 86.1511–84 applies to the 1984 and subsequent model years until superseded. If a section 86.1511–85 is promulgated, it would take effect beginning with the 1985 model year; § 86.1511–83 would apply to model years 1983 and 1984.

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model year.

(c) Unless indicated, all provisions in this subpart apply to gasoline-fueled heavy-duty engines and vehicles.

**§ 86.1505–84 Introduction; structure of subpart.**

(a) This subpart describes the equipment required and the procedures to follow in order to perform idle exhaust emission tests on gasoline-fueled heavy-duty engines and vehicles. Subpart A sets forth the testing requirements and test intervals necessary to comply with EPA certification procedures.

(b) Four topics are addressed in this subpart. Sections 86.1505–84 through 86.1515–84 set forth specifications and equipment requirements; §§ 86.1516–84 through 86.1526–84 discuss calibration methods and frequency; test procedures and data requirements are listed (in approximately chronological order) in §§ 86.1527–84 through 86.1542–84; and calculation formulas are found in § 86.1544–84.

**§ 86.1506–84 Equipment required and specifications; overview.**

(a) This subpart contains procedures for idle exhaust emission tests on gasoline-fueled heavy-duty vehicles and engines. Equipment required and specifications are as follows:

(1) *Exhaust emission tests.* All vehicles subject to this subpart are tested for exhaust emissions. Necessary equipment and specifications appear in §§ 86.1509–84 through 86.1511–84.

(2) *Fuel and analytical gas specifications.* Fuel requirements for idle exhaust emission testing are specified in § 86.1513–84. Analytical gases are specified in § 86.1514–84.

**§§ 86.1507–84—86.1508–84 [Reserved]**

**§ 86.1509–84 Exhaust gas sampling system.**

(a) The exhaust gas sampling system shall transport the exhaust sample from the engine or vehicle tailpipe to the analysis system in such a manner as to maintain the integrity of the sample constituents that are to be analyzed.

(b) The sample system shall supply a dry sample (i.e., water removed) to the analysis system.

(c) A CVS sampling system with bag analysis as specified in Subpart N is permitted. The inclusion of an additional raw $CO_2$ analyzer as specified in Subpart D is required if the CVS system is used in order to accurately determine the CVS dilution factor (D.F.). The heated sample line specified in Subpart D for raw emission measurements is not required for the raw $CO_2$ measurement.

(d) A raw exhaust sampling system as specified in Subpart D is permitted.

**§ 86.1510–84 [Reserved]**

**§ 86.1511–84 Exhaust gas analysis system.**

(a) Analyzers used for this subpart shall meet the following specifications.

(1) The analyzers used must have ranges such that

(i) The carbon monoxide (CO) idle standard specified in § 86.083–10 and § 86.083–11 for heavy-duty engines or vehicles will provide an analyzer response between 45 and 90 percent of full-scale deflection on the CO analyzer.

(2) The resolution of the readout device for the ranges specified in paragraph (a)(1) of this section shall be equal to or less than the following:

(i) 0.05 percent for a carbon monoxide analyzer, and

(3) For the ranges specified in paragraph (a)(1) of this section the precision shall be less than ±3 percent of full scale deflection. The precision is defined as 2 times the standard deviation of 5 repetitive responses to a given calibration gas.

(4) For the ranges specified in paragraph (a)(1) of this section, the mean response to a zero calibration gas shall not exceed ±3 percent of full scale during a one-hour period.

(5) For the ranges specified in paragraph (a)(1) of this section the mean calibration response shall be less than ±3 percent of full scale during a one hour period. The calibration response is defined as the analyzer response to a calibration gas after the analyzer has been spanned by the electrical spanning network at the beginning of the one hour period.

(6) The analyzer must respond to an instantaneous step change at the entrance to the sampling system with a response equal to 90 percent of that step change within 15 seconds or less on the ranges specified in paragraph (a)(1) of this section. The step change shall be at least 60 percent of full scale deflection.

(7) The interference gases listed shall individually or collectively produce an analyzer reading less than ±2 percent of full scale on the ranges specified in paragraph (a)(1) of this section.

| Interference Gas | Concentration | Applicable analyzer |
|---|---|---|
| $CO_2$ | 14% | CO |
| $C_3H_8$ | 1% | CO |
| $H_2O$ | Saturated Vapor at 200° F. | CO |
| $NO_x$ | 1,000 ppm | CO |
| $O_2$ | 5% | CO |

(8) The analyzer shall be able to meet the specifications in paragraph (a) of this section.

(i) After a 30 minute warm-up from the prevailing ambient conditions,

(ii) Between the ambient temperatures of −20° C and 45° C (−4° F to 113° F),

(iii) Between 0 to 85 percent relative humidity, and

(iv) During flow variations of ±50 percent.

(b) The following analysis systems are permitted when the analysis system is in a temperature controlled environment.

(1) A CVS sampling system with bag analysis as specified in Subpart N provided suitable corrections are used to convert dilute wet-basis results to raw dry-basis results. The inclusion of an additional raw $CO_2$ analyzer as specified in Subpart D is required if the CVS system is used in order to accurately determine the CVS dilution factor (D.F.).

(c) A raw exhaust analysis system as specified in Subpart D provided suitable corrections are used to convert raw wet-basis results to raw dry-basis results. Measurements made on a raw dry-basis do not need correction.

**§ 86.1512-84 [Reserved]**

**§ 86.1513-84 Fuel specifications.**

Fuel meeting the engine or vehicle manufacturer's recommendations to the ultimate purchaser shall be used. Fuels meeting the specifications in § 86.1313-84 for heavy-duty engines or vehicles are permitted.

**§ 86.1514-84 Analytical gases.**

(a) *Analyzer gases.*

(1) Calibration gases for the CO analyzer shall be single blends using nitrogen as the diluent.

(2) Ambient air may be used for zero gas provided it is treated to remove impurities or drawn from a source that would tend to minimize CO background levels (e.g., a large room with no vehicles, ambient air, etc.).

(b) Calibration gases shall be traceable to within 3 percent of NBS gas standards, or other standards which have been approved by the Administrator.

(c) Calibration gases shall be equivalent in concentration (±10%) to the standards specified in § 86.083-10 and § 86.083-11 for heavy-duty engines or vehicles.

(d) If the CVS sampling system is used, the analytical gases specified in Subpart N shall be used.

(e) If the raw sampling system (Subpart D) is used, the analytical gases specified in Subpart D shall be used.

**§ 86.1515-84 [Reserved]**

**§ 86.1516-84 Calibration; frequency and overview.**

(a) Calibrations shall be performed as specified in §§ 86.1518-84 through 86.1526-84.

(b) At least weekly or after any maintenance which could alter calibration, check the calibration of the CO analyzer. Adjust or repair the analyzer as necessary.

(c) Water traps, filters, or conditioning columns should be checked at least daily.

(d) If the sampling and analysis procedures of Subpart D or N are used, the required calibrations and their frequencies are specified in their respective Subparts.

**§§ 86.1517-84—86.1518-84 [Reserved]**

**§ 86.1519-84 CVS calibration.**

If the CVS system is used for sampling during the idle emission test, the calibration instructions are specified in § 86.1319-84 of Subpart N.

**§§ 86.1520-84—86.1521-84 [Reserved]**

**§ 86.1522-84 Carbon monoxide analyzer calibration.**

(a) *Initial check.*

(1) Follow the manufacturers instructions for instrument start-up and operation. Adjust the analyzer to optimize performance on the range specified in § 86.1511-84(a)(1).

(2) Calibrate the analyzer with the calibration gas specified in § 86.1514-84(c).

(3) Adjust the electrical span network such that the electrical span point is correct when the analyzer reads the calibration gas correctly.

(4) Determine that the analyzer complies with the specifications in § 86.1511-84.

(b) *Periodic check.* Follow paragraphs (a) (1), (2), and (3) of this section as specified by § 86.1516-84(b). Adjust or repair the analyzer as necessary.

(c) If the analysis procedures of Subpart D or N are used, the required calibrations are specified in their respective Subparts.

**§ 86.1523-84 [Reserved]**

**§ 86.1524-84 Carbon dioxide analyzer calibration.**

(a) The calibration requirements for the dilute-sample carbon dioxide analyzer are specified in Subpart N.

(b) The calibration requirements for the raw carbon dioxide analyzer are specified in Subpart D.

(c) If another sampling and analyzing system is used that does not require carbon dioxide ($CO_2$) analysis, this section may be disregarded.

**§ 86.1525-84 [Reserved]**

**§ 86.1526-84 Calibration of other equipment.**

Other test equipment used for testing shall be calibrated as often as required by the manufacturer or as necessary according to good practice.

**§ 86.1527-84 Idle test procedure; overview.**

(a) The idle emission test procedure is designed to determine the raw concentration (in parts per million of carbon) of carbon monoxide in the exhaust flow at idle. The test procedure begins with a warm engine, required to be at the normal operating temperature. (For example, the warm-up for an engine may be a transient dynamometer test, or for a vehicle it may be any convenient operation).

(b) *Vehicles.*

(1) If the idle test is being performed on a vehicle, all emission control systems shall be intact and functioning.

(c) *Engines.*

(1) If the idle test is being performed on an engine, the required engine configuration is specified in Subpart N.

**§ 86.1528-84-86.1529-84 [Reserved]**

**§ 86.1530-84 Test sequence; general requirements.**

The test sequence shown in Figure P83-1 shows the major steps encountered during the idle test described by the subsequent procedures. The average ambient temperature of the engine test cell (in the case of an engine dynamometer test) or the vehicle environment (in the case of a vehicle test) shall be between −20° C and 45° C (−4° F to 113° F).

Start

Engine Warm-up, 5 minutes Min.

Engine Preconditioning, 30 seconds Min., 6 minutes Max.

Idle Stabilization, 30±5 seconds.

Idle Emission Test, 30±5 seconds.

End.

Figure P84-1—Test Sequence

§§ 86.1531-84-86.1536-84 [Reserved]

§ 86.1537-84 Idle test run.

(a) *Test run.* The following steps shall be taken for each test:

(1) Achieve normal engine operating parameters. The transient emission dynamometer test is an acceptable technique to warm-up the engine to normal operating parameters for an engine test. If the transient emission test is not performed prior to the idle emission test, the engine may be warmed-up according to § 86.1332-84(d)(1) (i) through (iii). For a vehicle test, sufficient vehicle operation shall take place to achieve normal operating parameters.

(2) Check the device(s) for removing water from the exhaust sample and the sample filter(s). Remove any water from the water trap(s). Clean and replace the filter(s) as necessary.

(3) Set the zero and span points of the CO analyzer with the electrical spanning network. It is permitted to set the analyzer span with calibration gases.

(4) Hook-up or attach the sampling system to the tailpipe of the engine or vehicle.

(5) Operate the engine at 2500±50 rpm and zero load for a minimum of 30 seconds and a maximum of 6 minutes.

(6) Operate the engine at curb idle for 30±5 seconds with the dynamometer off for the engine test, or the transmission in neutral (or park for automatic transmissions) for the vehicle tests.

(7) Sample the exhaust (after paragraph (a)6 of this section) for an additional 30±5 seconds for raw dry-basis CO in percent. The average value observed during this sample period shall be the value recorded.

(b) If the CVS sampling system is used, the following procedures apply:

(1) Warm-up the engine as specified in paragraph (a)(1) of this section.

(2) Precondition the engine as specified in paragraph (a)(5) of this section.

(3) With the sample selector valves in the "standby" position, connect evacuated sample collection bags to the dilute exhaust and dilution air sample collection systems.

(4) Start the CVS (if not already on), the sample pumps, the temperature recorder, the engine cooling fan, and the raw $CO_2$ analyzer. (The heat exchanger of the constant volume sampler, if used, shall be preheated to operating temperature before the test begins).

(5) Adjust the sample flow rates to the desired flow rate and set the gas flow measuring devices to zero.

(6) Operate the engine at the conditions specified in paragraph (a)(6) of this section.

(7) Begin CO bag sampling and raw $CO_2$ sampling.

(8) Sample idle emissions long enough to obtain a sufficient bag sample, but in no case shorter than 60 seconds nor longer than 6 minutes. Follow the sampling and exhaust measurements requirements of Subpart D for the conducting of the idle modes of the gasoline or diesel steady-state test for the raw $CO_2$ measurement.

(9) As soon as possible, transfer the idle test exhaust and dilution air samples to the analytical system and process the samples according to § 86.1540-84 obtaining a stablized reading of the exhaust sample on all analyzers within 20 minutes of the end of the sample collection phase of the test.

(10) Disconnect the exhaust tube from the engine tailpipe(s).

(11) The CVS may be turned off, if desired.

(c) If the raw exhaust sampling and analysis technique specified in Subpart D is used, the following procedures apply:

(1) Warm-up the engine as specified in paragraph (a)(1) of this section.

(2) Precondition the engine as specified in paragraph (a)(5) of this section.

(3) Operate the engine at the conditions specified in paragraph (a)(6) of this section.

(4) Follow the sampling and exhaust measurement requirements of Subpart D for conducting the idle modes.

(d) If the engine stalls at any time during the test run, the test is void.

§§ 86.1538-84—86.1539-84 [Reserved]

§ 86.1540-84 Idle exhaust sample analysis.

(a) Record the CO idle concentrations in percent.

(b) If the CVS sampling system is used, the analysis procedures for dilute CO and $CO_2$ specified in Subpart N apply. Follow the raw $CO_2$ analysis procedure specified in Subpart D for the raw $CO_2$ analyzer.

(c) If the continuous raw exhaust sampling technique (Subpart D) is used, the analysis procedures for CO specified in Subpart D apply.

§ 86.1541-84 [Reserved]

§ 86.1542-84 Information required.

(a) *General data.* The following information shall be recorded for each idle emission test:

(1) Vehicle identification number for a vehicle test.

(2) Engine identification number for an engine test.

(3) Engine family.

(4) Engine displacement.

(5) Analyzer operator(s).

(6) Vehicle (engine) operator(s).

(7) Fuel identification.

(8) Date of purchase of analytical equipment.

(9) Date of most recent analytical assembly calibration.

(10) All pertinent instrument information such as tuning, gain, serial numbers, detector number, calibration curve numbers, etc. As long as this information is traceable, it may be summarized by system number or analyzer identification numbers.

(11) *Pre-test data.*

(i) Date and time of day.

(ii) Test number.

(iii) Ambient temperature (vehicle test) or engine intake air temperature (engine test).

(iv) Vehicle mileage or engine hours as applicable.

(12) *Test data.*

(i) Curb idle speed during the test.

(ii) Idle exhaust CO concentration.

(b) If a CVS sampling system with bag analysis is used for the idle emission test, record the additional information specified in Subpart N as applicable. In addition, record the raw exhaust $CO_2$ concentration during the test.

(c) If the raw exhaust sampling and analysis system specified in Subpart D is used, record the additional information specified in Subpart D as applicable.

§ 86.1543-84 [Reserved]

§ 86.1544-84 Calculations; idle exhaust emissions.

(a) The final idle emission test results shall be reported as percent for carbon monoxide on a dry basis. The results shall be reported to the same number of significant digits as the idle standards specified in § 86.084-10 and § 86.084-11.

(b) If a CVS sampling system is used, the following procedure shall apply:

(1) Use the procedures, as applicable, in Subpart N to determine the dilute wet-basis CO and $CO_2$ in percent.

(2) Use the procedure, as applicable, in Subpart D to determine the raw dry-basis $CO_2$ in percent.

(3) Convert the raw dry-basis $CO_2$ to raw wet-basis. An assumption that the percent of water by volume in the raw sample is equal to the percent of raw dry-basis $CO_2$ minus 0.5 percent is acceptable. For example:

10.0% dry $CO_2$ − 0.5% = 9.5% water
(1.00 − 0.095) (10.0% dry $CO_2$) = 9.05% wet $CO_2$

(4) Calculate the CVS dilution factor (DF) by:

$$DF = \frac{\text{Raw wet } CO_2 - \text{background } CO_2}{\text{Dilute wet } CO_2 - \text{background } CO_2}$$

(5) Convert the dilute wet-basis CO to dilute dry-basis values. An assumption that the percent of water by volume in the sample bag is 2 percent is acceptable. For example:

dilute dry CO=(dilute wet CO)/(1.00−0.02)

(6) Calculate the raw dry-basis CO values by:

raw dry CO=(DF) (dilute dry CO)

(d) If the raw exhaust sampling and analysis system specified in Subpart D is used, the following procedure shall apply:

(1) Use the procedure, as applicable, in Subpart D to raw dry-basis CO and $CO_2$.

[FR Doc. 80-1538 Filed 1-18-80; 8:45 am]
BILLING CODE 6560-01-M

Federal Register

Monday
January 21, 1980

Part III

# Department of the Treasury

Fiscal Service, Bureau of the Public Debt

Offering of U.S. Savings Bonds, Series H
Department Circular No. 905, 7th Revision

## DEPARTMENT OF THE TREASURY

### Fiscal Service

### 31 CFR Part 332

### Offering of U.S. Savings Bonds, Series H

**AGENCY:** Fiscal Service, Department of the Treasury.

**ACTION:** Final rule.

**SUMMARY:** This Seventh Revision of the offering circular for United States Savings Bonds, Series H, i.e., Department of the Treasury Circular No. 905, shows the improvements in the investment yields of Series H bonds. It also makes other changes in the terms of the offering necessitated by the termination of the sale of these bonds on December 31, 1979.

**EFFECTIVE DATE:** June 1, 1979.

**FOR FURTHER INFORMATION CONTACT:** A. E. Martin, Office of the Chief Counsel, Bureau of the Public Debt, (202) 376-0636.

**SUPPLEMENTAL INFORMATION:** On May 10, 1979, the Secretary of the Treasury announced that the interest rate paid on Series H savings bonds would be increased, effective June 1, 1979, to 6.5 percent per annum, compounded semiannually, if held to maturity. This revision of the offering circular for Series H bonds effectuates this increase and provides tables of interest payments and investment yields which reflect the higher rate.

As provided in the revision, this rate increase of ½ of 1 percent per annum is applied as follows:

First, Series H bonds purchased on and after June 1, 1979, will have an investment yield of 6.5 percent per annum, compounded semiannually, if held to original maturity, ten years from issue date. If the bond is redeemed before original maturity, the yield will be less than 6.5 percent.

Second, bonds issued prior to June 1, 1979, whether they are now in their original maturity period or an extended maturity period, will receive a ½ percent increase in investment yield to their original or next maturity date. The increase will be included in the interest check for the semiannual interest period that begins on or after June 1, 1979, and for each semiannual interest period thereafter.

*For example:* For a bond bearing an issue date of September 1, 1964, its first semiannual interest period after June 1, 1979, began on September 1, 1979. The interest check for that period, which will be issued on March 1, 1980, will be the first check that will reflect the improved yield.

In addition to effectuating the rate increase, this revision of the Series H bond offering circular includes several other changes relating to the termination of sale of the bonds, as announced by the Secretary of the Treasury on January 10, 1979.

First, § 332.1 provides that the offering of Series H bonds will terminate on December 31, 1979.

Second, § 332.8, relating to the extended maturity periods granted to Series H bonds, is revised. The term "extended maturity period" refers to one or more ten-year periods during which Series H bonds, if not sooner redeemed, continue to earn interest after the end of their original maturity period.

In accordance with the Secretary's prior announcement, Series H bonds bearing issue dates of June 1, 1952, through May 1, 1959, which have already been granted two 10-year extensions, will not be extended again. Thus, Series H bonds issued from June 1, 1952, to January 1, 1957, will reach final maturity 29 years, 8 months, from their respective issue dates and will cease to earn interest at that time. Series H bonds issued from February 1, 1957, to May 1, 1959, will reach final maturity exactly 30 years from their respective issue dates. All Series H bonds issued after May 1, 1959, are granted a second 10-year extension.

Finally, several minor changes have been made to the offering to update addresses used in connection with Series H bond transactions.

* * * * *

Accordingly, Department of the Treasury Circular No. 905, Sixth Revision, dated April 19, 1974, as amended and supplemented, including the tables incorporated therein (31 CFR, Part 332), is hereby revised and reissued as Department of the Treasury Circular No. 905, Seventh Revision, effective as of June 1, 1979.

This revision is effected under authority on Section 22 of the Second Liberty Bond Act, as amended (49 Stat. 21, as amended; 31 U.S.C. 757c) and 5 U.S.C. 301. Since this revision involves the fiscal policy of the United States and does not meet the Department's criteria for significant regulations, it has been determined that notice and public procedures thereon are unnecessary.

Dated: January 2, 1980.

Paul H. Taylor,

*Fiscal Assistant Secretary.*

## PART 332—OFFERING OF U.S. SAVINGS BONDS, SERIES H

Sec.

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Authority: Sec. 22, Second Liberty Bond Act as amended, 49 Stat. 21, as amended, (31 U.S.C. 757c) and (5 U.S.C. 301).

### § 332.1 Offering of bonds.

The Secretary of the Treasury hereby offers for sale to the people of the United States, United States Savings Bonds of Series H, hereinafter generally referred to as "Series H bonds" or "bonds". This offer, effective as of June 1, 1979, will terminate on December 31, 1979.

### § 332.2 Description of bonds.

(a) *General.* Series H bonds bear a facsimile of the signature of the Secretary of the Treasury and of the Seal of the Department of the Treasury. They are issued only in registered form and are nontransferable.

(b) *Denominations and prices.* Series H bonds are issued at face (par) amount and are available in denominations of $500, $1,000, $5,000 and $10,000.

(c) *Inscription and issue.* At the time of issue the issuing agent will (1) inscribe on the face of each bond the name, social security number and address of the owner, and the name of the beneficiary, if any, or the name, social security number and address of the first-named coowner and the name of the other coowner; (2) enter in the upper right-hand portion of the bond the issue date; and (3) imprint the agent's dating stamp in the lower right-hand portion to show the date the bond is actually inscribed. A bond shall be valid only if an authorized issuing agent receives payment therefor and duly inscribes, dates and stamps it.

(d) *Term.* A Series H bond shall be dated as of the first day of the month in which payment therefor is received by

an agent authorized to issue the bond. This date is the issue date and the bond will mature and be payable 10 years thereafter. The bond may not be called for redemption by the Secretary of the Treasury prior to maturity or the end of any extended maturity period (see § 332.8(a)(1)). The bond may be redeemed at par after six months from issue date.

(e) *Investment yield (interest).* The interest on a Series H bond will be paid semiannually by check drawn to the order of the registered owner or coowners, beginning six months from the issue date. Interest payments will be on a graduated scale, fixed to produce an investment yield of approximately 6.5 percent per annum, compounded semiannually, if the bond is held to maturity, but the yield will be less if the bond is redeemed prior thereto. See Table 56. Interest will cease at the end of the final authorized extended maturity period, or if redeemed earlier, at the end of the interest period next preceding the date of redemption. However, if the date of redemption falls on an interest payment date, interest will cease on that date.

**§ 332.3 Governing regulations.**

Series H bonds are subject to the regulations of the Department of the Treasury, now or hereafter prescribed governing United States Savings Bonds [of Series A, B, C, D, E, F, G, H, J and K], contained in Department of the Treasury Circular No. 530, current revision (31 CFR, Part 315),[1] except as otherwise specifically provided herein.

**§ 332.4 Registration.**

(a) *General.* Generally, only residents of the United States, its territories and possessions, the Commonwealth of Puerto Rico, and citizens of the United States temporarily residing abroad are eligible to be named as owners of Series H bonds. The bonds may be registered in the names of natural persons in their own right, as provided in paragraph (b) of this section, and in the names and titles or capacities of fiduciaries and organizations, as provided in paragraph (c) of this section. Full information regarding authorized forms of registration and restrictions with respect thereto are found in the governing regulations.

(b) *Natural persons in their own right.* The bonds may be registered in the names of natural persons (whether adults or minors) in their own right, in single ownership, coownership, and beneficiary forms.

(c) *Others.* The bonds may be registered in single ownership form in the names of fiduciaries and private and public organizations, as follows:

(1) *Fiduciaries.* In the names of and showing the titles or capacities of any persons or organizations, public or private, as fiduciaries (including trustees, legal guardians or similar representatives, and certain custodians), but not where the fiduciary would hold the bonds merely or principally as security for the performance of a duty, obligation or service.

(2) *Private and public organizations.* In the names of private or public organizations (including private corporations, partnerships, and unincorporated associations, and States, counties, public corporations, and other public bodies) in their own right, but not in the names of commercial banks.[2]

**§ 332.5 Limitation on holdings.**

The amount of Series H bonds originally issued during any one calendar year that may be held by any one person, at any one time, computed in accordance with the governing regulations, is limited as follows:

(a) *General limitation.* $10,000 (face amount) for the calendar year 1974 and each calendar year thereafter.

(b) *Special limitation for gifts to exempt organizations under 26 CFR 1.501(c)(3)–1.* $200,000 (face amount) for bonds received as gifts by an organization which at the time of purchase is an exempt organization under the terms of 26 CFR 1.501(c)(3)–1.

(c) *Exchange pursuant to Department of the Treasury Circular No. 1036, as amended.* Series H bonds issued in an exchange pursuant to the provisions of Department of the Treasury Circular No. 1036 (31 CFR Part 339) are exempt from the annual limitation.

**§ 332.6 Purchase of bonds.**

(a) *Issuing Agents.* Only the Federal Reserve Banks and Branches and the Department of the Treasury are authorized to act as issuing agents for the sale of Series H bonds. However, financial institutions may forward applications for purchase of the bonds. The date an issuing agent receives the application and payment will govern the issue date of the bond purchased.

(b) *Application for purchase and remittance.* The applicant for purchase of Series H bonds should furnish (1) instructions for registration of the bonds to be issued, which must be in an authorized form; (2) the appropriate social security or employer identification number; (3) the post office address of the owner or first-named coowner; and (4) the address(es) for delivery of the bonds and for mailing checks in payment of interest, if other than that of the owner or first-named coowner. The application should be forwarded to a Federal Reserve Bank or Branch, or the Department of the Treasury, Washington, D.C. 20226, accompanied by a remittance to cover the purchase price. Any form of exchange, including personal checks, will be accepted subject to collection. Checks or other forms of exchange should be drawn to the order of the Federal Reserve Bank or the United States Treasury, as the case may be. Checks payable by endorsement are not acceptable. Any depositary qualified pursuant to Department of the Treasury Circular No. 92, current revision (31 CFR, Part 203), will be permitted to make payment by credit for bonds applied for on behalf of its customers up to any amount for which it shall be qualified in excess of existing deposits when so notified by the Federal Reserve Bank of its district.

**§ 332.7 Delivery of bonds.**

Authorized issuing agents will deliver Series H bonds either over-the-counter in person, or by mail at the risk and expense of the United States, to the address given by the purchaser, but only within the United States, its territories and possessions, and the Commonwealth of Puerto Rico. No mail deliveries elsewhere will be made. If purchased by citizens of the United States temporarily residing abroad, the bonds will be delivered at such address in the United States as the purchaser directs.

**§ 332.8 Extended terms and improved yields for outstanding bonds.**

(a) *Extended maturity periods*—(1) *General.* The terms "extended maturity period" and "second extended maturity period", when used herein, refer to 10-year intervals after the original maturity dates during which owners may retain their bonds and continue to earn interest thereon. No special action is required of owners desiring to take advantage of any extensions heretofore or herein granted.[3]

(2) *Two extensions.* All Series H bonds may be retained for two extended maturity periods of 10 years each.

[1] Copies may be obtained from any Federal Reserve Bank or Branch, from the Bureau of the Public Debt, Washington, D.C. 20226, or from the Bureau of the Public Debt, 200 Third Street, Parkersburg, West Virginia 26101.

[2] For this purpose, commercial banks (as defined in § 315.7, Department of the Treasury Circular No. 530, current revision) are those accepting demand deposits.

[3] The tables incorporated herein, arranged according to issue dates, show current schedules of interest payments and investment yields.

(b) *Improved yields*[4]*—Outstanding bonds.* The investment yield on all outstanding Series H bonds is hereby increased as follows:

(1) *Bonds reaching original maturity period on or after December 1, 1979.* By approximately ½ of 1 percent per annum, compounded semiannually, to original maturity, on or after December 1, 1979, the increase to be included in the interest checks issued on or after that date.

(2) *Bonds which entered an extended maturity period prior to December 1, 1979.* By approximately ½ of 1 percent per annum, compounded semiannually, for the remaining period to their next maturity date. The increase will be included in the interest checks issued on or after December 1, 1979.

(3) *Other extensions.* The investment yield for any authorized extensions, other than as set forth in paragraphs (b) (1) or (2) of this section, will be at the rate of 6.5 percent per annum, compounded semiannually, unless such rate is changed prior to the commencement of the extension period. If a change in rate is made, the tables of redemption values and investment yields published herein for such extensions shall not apply.

**§ 332.9 Taxation**

The income derived from Series H bonds is subject to all taxes imposed under the Internal Revenue Code of 1954. The bonds are subject to estate, inheritance, gift, or other excise taxes, whether Federal or State, but are exempt from all taxation now or hereafter imposed on the principal or interest thereof by any State, or any of the possessions of the United States, or by any local taxing authority.

**§ 332.10 Payment or redemption.**

A Series H bond may be redeemed at par at any time after six months from the issue date. The bond must be presented and surrendered, with a duly executed request for payment, to (a) a Federal Reserve Bank or Branch, (b) the Department of the Treasury, Washington, D.C. 20226, or (c) the Bureau of the Public Debt, Parkersburg, West Virginia 26101. A bond received by an agent during the calendar month preceding an interest payment date may not be redeemed until that date.

**§ 332.11 Reservation as to issue of bonds.**

The Secretary of the Treasury reserves the right to reject any application for Series H bonds, in whole or in part, and to refuse to issue or permit to be issued hereunder any such bonds in any case or any class or classes of cases if he deems such action to be in the public interest, and his action in any such respect shall be final.

**§ 332.12 Preservation of rights.**

Nothing contained herein shall limit or restrict rights which owners of Series H bonds heretofore issued have acquired under offers previously in force.

**§ 332.13 Fiscal agents.**

Federal Reserve Banks and Branches, as fiscal agents of the United States, are authorized to perform such services as may be requested of them by the Secretary of the Treasury in connection with the issue, delivery, redemption, and payment of Series H bonds.

**§ 332.14 Reservations as to terms of offer.**

The Secretary of the Treasury may at any time or from time to time supplement or amend the terms of this offering of bonds, or of any amendments or supplements thereto.

BILLING CODE 4810-40-M

[4] See Appendix for summary of investment yields to maturity, extended maturity and second extended maturity dates under regulations heretofore and herein prescribed.

TABLE 1

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH SEP. 1, 1952

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION *, SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 7.5 YEARS . . .1/ ( 8/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.84 | 6.00 | 6.50 |
| 8.0 YEARS . . . . ( 2/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.88 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 8/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.91 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 2/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 5.93 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 8/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 5.95 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 2/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 5.97 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1952. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPPIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.86%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 2

BONDS BEARING ISSUE DATES FROM OCT. 1, 1952 THROUGH MAR. 1, 1953

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION *, SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 7.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.88 | 6.00 | 6.50 |
| 7.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.91 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.94 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.96 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 5.99 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.01 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.03 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF OCT. 1, 1952. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: OCT. 1 AND NOV. 1, 1952 IS 4.09%; DEC. 1, 1952 THROUGH MAR. 1, 1953 IS 4.10%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 3

BONDS BEARING ISSUE DATES FROM APR. 1 THROUGH SEP. 1, 1953

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPPOXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500. | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 6.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.91 | 6.00 | 6.50 |
| 7.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.94 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.97 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.00 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.02 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.08 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF APR. 1, 1953. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: APR. 1 AND MAY 1, 1953 IS 4.14%; JUNE 1 THROUGH SEP. 1, 1953 IS 4.15%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 4

BONDS BEARING ISSUE DATES FROM OCT. 1, 1953 THROUGH MAR. 1, 1954

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 6.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.95 | 6.00 | 6.50 |
| 6.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.99 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.02 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.08 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.10 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.13 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF OCT. 1, 1953. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: OCT. 1 AND NOV. 1, 1953 IS 4.18%; DEC. 1, 1953 THROUGH MAR. 1, 1954 IS 4.19%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 5

BONDS BEARING ISSUE DATES FROM APR. 1 THROUGH SEP. 1, 1954

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 6 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 5.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 6.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.09 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.11 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.18 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.19 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF APR. 1, 1954. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 6 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: APR. 1 AND MAY 1, 1954 IS 4.22%; JUNE 1 THROUGH SEP. 1, 1954 IS 4.24%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 6

BONDS BEARING ISSUE DATES FROM OCT. 1, 1954 THROUGH MAR. 1, 1955

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 6 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 5.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 5.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.07 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.10 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.14 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.18 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.20 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.21 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF OCT. 1, 1954. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 6 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: OCT. 1 AND NOV. 1, 1954 IS 4.27%; DEC. 1, 1954 THROUGH MAR. 1, 1955 IS 4.28%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 7

BONDS BEARING ISSUE DATES FROM APR. 1 THROUGH SEP. 1, 1955

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 4.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 5.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.08 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.11 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.17 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.20 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.22 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.24 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF APR. 1, 1955. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: APR. 1 AND MAY 1, 1955 IS 4.32%; JUNE 1 THROUGH SEP. 1, 1955 IS 4.33%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 8

BONDS BEARING ISSUE DATES FROM OCT. 1, 1955 THROUGH MAR. 1, 1956

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPPOXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND FXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 4.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 4.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.05 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.09 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.17 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.22 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.26 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF OCT. 1, 1955. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: OCT. 1 AND NOV. 1, 1955 IS 4.36%; DEC. 1, 1955 THROUGH MAR. 1, 1956 IS 4.38%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 9

BONDS BEARING ISSUE DATES FROM APR. 1 THROUGH SEP. 1, 1956

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 3.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 4.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.10 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.22 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.26 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.29 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF APR. 1, 1956. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: APR. 1 AND MAY 1, 1956 IS 4.44%; JUNE 1 THROUGH SEP. 1, 1956 IS 4.45%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 10

BONDS BEARING ISSUE DATES FROM OCT. 1, 1956 THROUGH JAN. 1, 1957

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 19 YEARS, 8 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 3.0 YEARS . . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 3.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.07 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.11 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.18 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.26 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.29 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.31 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.32 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF OCT. 1, 1956. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 29 YEARS AND 8 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY DATE ON BONDS DATED: OCT. 1 AND NOV. 1, 1956 IS 4.49%; DEC. 1, 1956 THROUGH JAN. 1, 1957 IS 4.51%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 11

BONDS BEARING ISSUE DATES FROM FEB. 1 THROUGH MAY 1, 1957

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 2.5 YEARS . . .1/ ( 8/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 3.0 YEARS . . . . ( 2/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.08 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 8/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 2/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.17 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 8/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 2/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 8/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 2/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 8/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 2/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 8/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.31 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 2/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 8/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 2/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 8/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.34 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 2/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.34 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF FEB. 1, 1957. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.65%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 12

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1957

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 2.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 2.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.09 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.20 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.26 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.31 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.34 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.35 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.37 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1957. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.70%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 13

BONDS BEARING ISSUE DATES FROM DEC. 1, 1957 THROUGH MAY 1, 1958

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | | | |
| | | | | | PERCENT | PERCENT | PERCENT |
| 1.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 2.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 4.0 YEARS . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.35 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.38 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.40 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1957. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.75%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 14

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1958

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * SECOND EXTENDED MATURITY PERIOD | | | | | | |
| | | | | | PERCENT | PERCENT | PERCENT |
| 1.0 YEARS . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 1.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.29 | 6.50 | 6.50 |
| 3.0 YEARS . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 3.5 YEARS . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.35 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.38 | 6.50 | 6.50 |
| 5.0 YEARS . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.41 | 6.50 | 6.50 |
| 7.0 YEARS . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.41 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.42 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.42 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 9.0 YEARS . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 9.5 YEARS . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.43 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1958. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.81%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 15

BONDS BEARING ISSUE DATES FROM DEC. 1, 1958 THROUGH MAY 1, 1959

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 1.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.41 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.42 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.44 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.44 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.45 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.45 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.45 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.47 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.47 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1958. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.87%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 16

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1959

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 10.0 YEARS 1/ .2/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 3/ 5.68 | 6.00 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS (12/1/79) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

2/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1959. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.58%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.93%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 17

BONDS BEARING ISSUE DATES FROM DEC. 1, 1959 THROUGH MAY 1, 1960

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 9.5 YEARS 1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.72 | 6.00 | 6.50 |
| 10.0 YEARS 2/ (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 5.75 | 6.50 | **** |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS ( 6/1/80) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | **** |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1959. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.62%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.96%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 18

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1960

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 9.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.77 | 6.00 | 6.50 |
| 9.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.80 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 5.83 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . (12/1/80) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/. . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1960. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.66%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 4.99%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 19

BONDS BEARING ISSUE DATES FROM DEC. 1, 1960 THROUGH MAY 1, 1961

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 8.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.80 | 6.00 | 6.50 |
| 9.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.83 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.85 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 5.88 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . ( 6/1/81) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/. . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1960. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.70%.
4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.02%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 20

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1961

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 8.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.82 | 6.00 | 6.50 |
| 8.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.85 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.88 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.90 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 5.92 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1961. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.76%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 20-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1961

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/81) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1961. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.07%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 21

BONDS BEARING ISSUE DATES FROM DEC. 1, 1961 THROUGH MAY 1, 1962

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 7.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.84 | 6.00 | 6.50 |
| 8.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.88 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.91 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.93 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 5.95 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 5.97 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1961. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.81%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 21-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1961 THROUGH MAY 1, 1962

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/82) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1961. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.11%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 22

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1962

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 7.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.88 | 6.00 | 6.50 |
| 7.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.91 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.94 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.96 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 5.99 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.01 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.03 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1962. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.87%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 22-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1962

| ISSUE PRICE . . . . . / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/82) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1962. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPPIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.15%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 23

BONDS BEARING ISSUE DATES FROM DEC. 1, 1962 THROUGH MAY 1, 1963

| ISSUE PRICE . . . . . / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 6.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.91 | 6.00 | 6.50 |
| 7.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.94 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 5.97 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.00 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.02 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.08 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1962. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.92%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 23-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1962 THROUGH MAY 1, 1963

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/63) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/63) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/64) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/64) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/65) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/65) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/66) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/66) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/67) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/67) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/68) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/68) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/69) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/69) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1962. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.20%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 24

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1963

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 6.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 5.95 | 6.00 | 6.50 |
| 6.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 5.99 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.02 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.08 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.10 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.13 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1963. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 4.98%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 24-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1963

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . 1/ (12/1/83) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1963. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.24%.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 25

BONDS BEARING ISSUE DATES FROM DEC. 1, 1963 THROUGH MAY 1, 1964

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 5.5 YEARS . . 1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 6.0 YEARS . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 6.5 YEARS . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.06 | 6.50 | 6.50 |
| 7.0 YEARS . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.09 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.11 | 6.50 | 6.50 |
| 8.0 YEARS . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 9.0 YEARS . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 9.5 YEARS . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.18 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.19 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1963. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.04%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 25-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1963 THROUGH MAY 1, 1964

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/84) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1963. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPPIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.29%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 26

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1964

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 5.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 5.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.07 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.10 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.14 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.18 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.20 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.21 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1964. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.10%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 26-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1964

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/84) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1964. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.34%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 27

BONDS BEARING ISSUE DATES FROM DEC. 1, 1964 THROUGH MAY 1, 1965

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 4.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 5.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.08 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.11 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.17 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.20 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.22 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.24 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1964. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.16%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 27-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1964 THROUGH MAY 1, 1965

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/85) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1964. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.39%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 28

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1965

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 4.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 4.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.05 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.09 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.17 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.22 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.26 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1965. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.23%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 28-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1965

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/65) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/66) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/66) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/67) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/67) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/68) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/68) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/69) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/69) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/70) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/70) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/71) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/71) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/72) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/72) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/73) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/73) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/74) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/74) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/75) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1965, FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.44%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 29

BONDS BEARING ISSUE DATES FROM DEC. 1, 1965 THROUGH MAY 1, 1966

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 3.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 4.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.04 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.10 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.22 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.26 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.29 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1965, FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.40%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 29-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1965 THROUGH MAY 1, 1966

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/86) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1965. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.58%.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 30

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1966

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 3.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 3.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.07 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.11 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.15 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.18 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.26 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.29 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.31 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.32 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1966. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.46%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 30-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1966

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/86) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1966. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.63%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 31

BONDS BEARING ISSUE DATES FROM DEC. 1, 1966 THROUGH MAY 1, 1967

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 2.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 3.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.08 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.13 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.17 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.21 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.31 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.34 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.34 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1966. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.52%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 31-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1966 THROUGH MAY 1, 1967

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/87) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1966, FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.68%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 32

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1967

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 2.0 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 2.5 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.09 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.16 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.20 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.23 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.26 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.28 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.31 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.34 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.35 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.37 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1967, FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.59%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 32-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1967

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/87) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1967. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.74%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 33

BONDS BEARING ISSUE DATES FROM DEC. 1, 1967 THROUGH MAY 1, 1968

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * — EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 1.5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 2.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.12 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.19 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.27 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.30 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.35 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.38 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.40 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1967. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.65%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 33-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1967 THROUGH MAY 1, 1968

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION<br>SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ ( 6/1/88) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS ( 12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS ( 12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS ( 12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS ( 12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS ( 12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS ( 12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS ( 12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS ( 12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS ( 12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ ( 12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1967. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.79%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 34

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1968

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION *<br>EXTENDED MATURITY PERIOD | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 1.0 YEARS 1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 1.5 YEARS ( 12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.14 | 6.50 | 6.50 |
| 2.0 YEARS ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.24 | 6.50 | 6.50 |
| 2.5 YEARS ( 12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.29 | 6.50 | 6.50 |
| 3.0 YEARS ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.32 | 6.50 | 6.50 |
| 3.5 YEARS ( 12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.35 | 6.50 | 6.50 |
| 4.0 YEARS ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.36 | 6.50 | 6.50 |
| 4.5 YEARS ( 12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.38 | 6.50 | 6.50 |
| 5.0 YEARS ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 5.5 YEARS ( 12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 6.0 YEARS ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.40 | 6.50 | 6.50 |
| 6.5 YEARS ( 12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.41 | 6.50 | 6.50 |
| 7.0 YEARS ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.41 | 6.50 | 6.50 |
| 7.5 YEARS ( 12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.42 | 6.50 | 6.50 |
| 8.0 YEARS ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.42 | 6.50 | 6.50 |
| 8.5 YEARS ( 12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 9.0 YEARS ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 9.5 YEARS ( 12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 10.0 YEARS 2/ ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.43 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1968. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.72%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 34-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1968

| ISSUE PRICE . . . . . / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/68) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/69) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/69) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/70) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/70) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/71) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/71) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/72) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/72) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/73) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/73) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/74) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/74) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/75) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/75) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/76) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/76) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/77) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/77) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/78) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1968. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.85%.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 35

BONDS BEARING ISSUE DATES FROM DEC. 1, 1968 THROUGH MAY 1, 1969

| ISSUE PRICE . . . . . / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/79) | $15.00 | $30.00 | $150.00 | $300.00 | 6.00 | 6.00 | 6.50 |
| 1.0 YEARS . . . . (12/1/79) | 16.25 | 32.50 | 162.50 | 325.00 | 6.25 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.33 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.37 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.39 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.41 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.42 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.43 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.44 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.44 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.45 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.45 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.45 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.46 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.47 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.47 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1968. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.81%.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 35-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1968 THROUGH MAY 1, 1969

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ ( 6/1/89) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1968. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 5.92%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 36

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1969

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 10.0 YEARS 1/. .2/ ( 6/1/79) | $16.53 | $33.06 | $165.30 | $330.60 | 5.67 | 6.61 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS | EXTENDED MATURITY PERIOD ** | | | | | | TO EXTENDED MATURITY |
| .5 YEARS . . . . (12/1/79) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 3/. . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 4/ 6.50 | 6.50 | ---- |

1/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.
2/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1969. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
3/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
4/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 5.96%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 36-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1969

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION SECOND EXTENDED MATURITY PERIOD ** | | | | | | |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ (12/1/89) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1969. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.05%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 37

BONDS BEARING ISSUE DATES FROM DEC. 1, 1969 THROUGH MAY 1, 1970

| ISSUE PRICE • • • • • • REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION • | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 9.5 YEARS • •1/ ( 6/1/79) | $16.72 | $33.44 | $167.20 | $334.40 | 5.69 | 6.69 | 7.19 |
| 10.0 YEARS 2/. • • (12/1/79) | 17.97 | 35.94 | 179.70 | 359.40 | 5.75 | 7.19 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS | EXTENDED MATURITY PERIOD •• | | | | | | TO EXTENDED MATURITY |
| .5 YEARS • • • • ( 6/1/80) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS • • • (12/1/80) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS • • • • ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS • • • • (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS • • • • ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS • • • • (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS • • • • ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS • • • • (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS • • • • ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS • • • • (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS • • • • ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS • • • • (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS • • • • ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS • • • • (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS • • • • ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS • • • • (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS • • • • ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS • • • • (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS • • • • ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 3/. • • (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 4/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1969. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.
2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
4/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.01%.

• FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.
•• THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 37-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1969 THROUGH MAY 1, 1970

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ ( 6/1/90) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1969. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.09%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 38

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1970

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 9.0 YEARS 1/ ( 6/1/79) | $16.26 | $32.52 | $162.60 | $325.20 | 5.73 | 6.50 | 7.00 |
| 9.5 YEARS (12/1/79) | 17.51 | 35.02 | 175.10 | 350.20 | 5.78 | 7.00 | 7.00 |
| 10.0 YEARS 2/ ( 6/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.83 | 7.00 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS | EXTENDED MATURITY PERIOD ** | | | | | | TO EXTENDED MATURITY |
| .5 YEARS (12/1/80) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS ( 6/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 3/ ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 4/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1970. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

4/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.06%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 38-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1970

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION<br>SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ (12/1/90) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1970. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.13%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT

TABLE 39

BONDS BEARING ISSUE DATES FROM DEC. 1, 1970 THROUGH MAY 1, 1971

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 8.5 YEARS 1/ ( 6/1/79) | $16.26 | $32.52 | $162.60 | $325.20 | 5.73 | 6.50 | 7.00 |
| 9.0 YEARS (12/1/79) | 17.51 | 35.02 | 175.10 | 350.20 | 5.78 | 7.00 | 7.00 |
| 9.5 YEARS ( 6/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.83 | 7.00 | 7.00 |
| 10.0 YEARS 2/ (12/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.87 | 7.00 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS | EXTENDED MATURITY PERIOD ** | | | | | | TO EXTENDED MATURITY |
| .5 YEARS ( 6/1/81) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/81) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 3/ (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 4/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1970. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

4/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.09%.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 39-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1970 THROUGH MAY 1, 1971

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — SECOND EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO 2ND EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . 1/ ( 6/1/91) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1970. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.16%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 40

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1971

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 8.0 YEARS . . .1/ ( 6/1/79) | $16.26 | $32.52 | $162.60 | $325.20 | 5.72 | 6.50 | 7.00 |
| 8.5 YEARS . . . . (12/1/79) | 17.51 | 35.02 | 175.10 | 350.20 | 5.78 | 7.00 | 7.00 |
| 9.0 YEARS . . . . ( 6/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.83 | 7.00 | 7.00 |
| 9.5 YEARS . . . . (12/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.88 | 7.00 | 7.00 |
| 10.0 YEARS 2/. . . ( 6/1/81) | 17.51 | 35.02 | 175.10 | 350.20 | 5.92 | 7.00 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1971. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 40-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1971

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ | (12/1/81) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ | ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS | (12/1/91) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ | ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1971. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.12%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.18%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 41

BONDS BEARING ISSUE DATES FROM DEC. 1, 1971 THROUGH MAY 1, 1972

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 7.5 YEARS . . .1/ ( 6/1/79) | $16.26 | $32.52 | $162.60 | $325.20 | 5.72 | 6.50 | 7.00 |
| 8.0 YEARS . . . . (12/1/79) | 17.51 | 35.02 | 175.10 | 350.20 | 5.78 | 7.00 | 7.00 |
| 8.5 YEARS . . . . ( 6/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.84 | 7.00 | 7.00 |
| 9.0 YEARS . . . . (12/1/80) | 17.51 | 35.02 | 175.10 | 350.20 | 5.89 | 7.00 | 7.00 |
| 9.5 YEARS . . . ( 6/1/81) | 17.51 | 35.02 | 175.10 | 350.20 | 5.93 | 7.00 | 7.00 |
| 10.0 YEARS 2/ . . (12/1/81) | 17.51 | 35.02 | 175.10 | 350.20 | 5.97 | 7.00 | **** |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1971. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 41-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1971 THROUGH MAY 1, 1972

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS | 1/ ( 6/1/82) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | (12/1/82) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ | (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS | ( 6/1/92) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ | (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1971. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.15%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.21%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 42

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1972

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 7.0 YEARS 1/ ( 6/1/79) | $16.27 | $32.54 | $162.70 | $325.40 | 5.71 | 6.51 | 7.01 |
| 7.5 YEARS ( 12/1/79) | 17.52 | 35.04 | 175.20 | 350.40 | 5.78 | 7.01 | 7.01 |
| 8.0 YEARS ( 6/1/80) | 17.52 | 35.04 | 175.20 | 350.40 | 5.84 | 7.01 | 7.01 |
| 8.5 YEARS ( 12/1/80) | 17.52 | 35.04 | 175.20 | 350.40 | 5.90 | 7.01 | 7.01 |
| 9.0 YEARS ( 6/1/81) | 17.52 | 35.04 | 175.20 | 350.40 | 5.94 | 7.01 | 7.01 |
| 9.5 YEARS ( 12/1/81) | 17.52 | 35.04 | 175.20 | 350.40 | 5.99 | 7.01 | 7.01 |
| 10.0 YEARS 2/ ( 6/1/82) | 17.52 | 35.04 | 175.20 | 350.40 | 6.02 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1972. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 42-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1972

| ISSUE PRICE AND REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ | (12/1/82) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ | ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS | (12/1/92) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ | ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1972. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.19%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.24%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 43

BONDS BEARING ISSUE DATES FROM DEC. 1, 1972 THROUGH MAY 1, 1973

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 6.5 YEARS . .1/ ( 6/1/79) | $16.27 | $32.54 | $162.70 | $325.40 | 5.71 | 6.51 | 7.01 |
| 7.0 YEARS . . . (12/1/79) | 17.52 | 35.04 | 175.20 | 350.40 | 5.78 | 7.01 | 7.01 |
| 7.5 YEARS . . . ( 6/1/80) | 17.52 | 35.04 | 175.20 | 350.40 | 5.85 | 7.01 | 7.01 |
| 8.0 YEARS . . . . (12/1/80) | 17.52 | 35.04 | 175.20 | 350.40 | 5.91 | 7.01 | 7.01 |
| 8.5 YEARS . . . . ( 6/1/81) | 17.52 | 35.04 | 175.20 | 350.40 | 5.96 | 7.01 | 7.01 |
| 9.0 YEARS . . . . (12/1/81) | 17.52 | 35.04 | 175.20 | 350.40 | 6.00 | 7.01 | 7.01 |
| 9.5 YEARS . . . . ( 6/1/82) | 17.52 | 35.04 | 175.20 | 350.40 | 6.04 | 7.01 | 7.01 |
| 10.0 YEARS 2/. . . (12/1/82) | 17.52 | 35.04 | 175.20 | 350.40 | 6.07 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1972. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 43-A

FONDS BEARING ISSUE DATES FROM DEC. 1, 1972 THROUGH MAY 1, 1973

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEPEST PMT. DATE | (3) FOR HALF-YEAR PD. PRE-CEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . 1/ ( 6/1/83) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . (12/1/83) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . ( 6/1/93) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1972. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.22%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.27%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE #4

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1973

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | | PERCENT | PERCENT | PERCENT |
| 6.0 YEARS | 1/ ( 6/1/79) | $16.27 | $32.54 | $162.70 | $325.40 | 5.70 | 6.51 | 7.01 |
| 6.5 YEARS | (12/1/79) | 17.52 | 35.04 | 175.20 | 350.40 | 5.78 | 7.01 | 7.01 |
| 7.0 YEARS | ( 6/1/80) | 17.52 | 35.04 | 175.20 | 350.40 | 5.85 | 7.01 | 7.01 |
| 7.5 YEARS | (12/1/80) | 17.52 | 35.04 | 175.20 | 350.40 | 5.92 | 7.01 | 7.01 |
| 8.0 YEARS | ( 6/1/81) | 17.52 | 35.04 | 175.20 | 350.40 | 5.97 | 7.01 | 7.01 |
| 8.5 YEARS | (12/1/81) | 17.52 | 35.04 | 175.20 | 350.40 | 6.02 | 7.01 | 7.01 |
| 9.0 YEARS | ( 6/1/82) | 17.52 | 35.04 | 175.20 | 350.40 | 6.06 | 7.01 | 7.01 |
| 9.5 YEARS | (12/1/82) | 17.52 | 35.04 | 175.20 | 350.40 | 6.09 | 7.01 | 7.01 |
| 10.0 YEARS | 2/ ( 6/1/83) | 17.52 | 35.04 | 175.20 | 350.40 | 6.13 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1973. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 44-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1973

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ | (12/1/83) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ | ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS | (12/1/93) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ | ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1973. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.26%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.29%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 45

BONDS BEARING ISSUE DATES FROM DEC. 1, 1973 THROUGH MAY 1, 1974

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 5.5 YEARS 1/ ( 6/1/79) | $16.28 | $32.56 | $162.80 | $325.60 | 5.69 | 6.51 | 7.01 |
| 6.0 YEARS ( 12/1/79) | 17.53 | 35.06 | 175.30 | 350.60 | 5.78 | 7.01 | 7.01 |
| 6.5 YEARS ( 6/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.86 | 7.01 | 7.01 |
| 7.0 YEARS ( 12/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.93 | 7.01 | 7.01 |
| 7.5 YEARS ( 6/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 5.99 | 7.01 | 7.01 |
| 8.0 YEARS ( 12/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 6.04 | 7.01 | 7.01 |
| 8.5 YEARS ( 6/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.08 | 7.01 | 7.01 |
| 9.0 YEARS ( 12/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.12 | 7.01 | 7.01 |
| 9.5 YEARS ( 6/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.15 | 7.01 | 7.01 |
| 10.0 YEARS 2/ ( 12/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.18 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1973. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 45-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1973 THROUGH MAY 1, 1974

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/84) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . (12/1/84) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . ( 6/1/94) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/. . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1973. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.29%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.33%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 46

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1974

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 5.0 YEARS . . 1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.62 | 5.80 | 7.01 |
| 5.5 YEARS . . . (12/1/79) | 17.53 | 35.06 | 175.30 | 350.60 | 5.73 | 7.01 | 7.01 |
| 6.0 YEARS . . . ( 6/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.82 | 7.01 | 7.01 |
| 6.5 YEARS . . . (12/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.89 | 7.01 | 7.01 |
| 7.0 YEARS . . . ( 6/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 5.96 | 7.01 | 7.01 |
| 7.5 YEARS . . . (12/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 6.02 | 7.01 | 7.01 |
| 8.0 YEARS . . . . ( 6/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.06 | 7.01 | 7.01 |
| 8.5 YEARS . . . . (12/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.11 | 7.01 | 7.01 |
| 9.0 YEARS . . . ( 6/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.14 | 7.01 | 7.01 |
| 9.5 YEARS . . . . (12/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.18 | 7.01 | 7.01 |
| 10.0 YEARS 2/. . . ( 6/1/84) | 17.53 | 35.06 | 175.30 | 350.60 | 6.21 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1974. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 46-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1974

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . . 1/ (12/1/84) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . ( 6/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . (12/1/94) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1974. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.31%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.34%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 47

BONDS BEARING ISSUE DATES FROM DEC. 1, 1974 THROUGH MAY 1, 1975

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 4.5 YEARS . . .1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.60 | 5.80 | 6.96 |
| 5.0 YEARS . . . . (12/1/79) | 15.75 | 31.50 | 157.50 | 315.00 | 5.66 | 6.30 | 7.01 |
| 5.5 YEARS . . . . ( 6/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.77 | 7.01 | 7.01 |
| 6.0 YEARS . . . . (12/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.86 | 7.01 | 7.01 |
| 6.5 YEARS . . . . ( 6/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 5.93 | 7.01 | 7.01 |
| 7.0 YEARS . . . . (12/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 5.99 | 7.01 | 7.01 |
| 7.5 YEARS . . . . ( 6/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.05 | 7.01 | 7.01 |
| 8.0 YEARS . . . . (12/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.09 | 7.01 | 7.01 |
| 8.5 YEARS . . . . ( 6/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.13 | 7.01 | 7.01 |
| 9.0 YEARS . . . . (12/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.17 | 7.01 | 7.01 |
| 9.5 YEARS . . . . ( 6/1/84) | 17.53 | 35.06 | 175.30 | 350.60 | 6.20 | 7.01 | 7.01 |
| 10.0 YEARS 2/. . . (12/1/84) | 17.53 | 35.06 | 175.30 | 350.60 | 6.23 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1974. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 47-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1974 THROUGH MAY 1, 1975

| ISSUE PRICE AND REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . 1/ ( 6/1/85) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . (12/1/85) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . ( 6/1/95) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/. . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1974. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.33%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.35%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 48

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1975

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 4.0 YEARS 1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.58 | 5.80 | 6.87 |
| 4.5 YEARS (12/1/79) | 15.75 | 31.50 | 157.50 | 315.00 | 5.65 | 6.30 | 6.94 |
| 5.0 YEARS ( 6/1/80) | 15.75 | 31.50 | 157.50 | 315.00 | 5.71 | 6.30 | 7.01 |
| 5.5 YEARS (12/1/80) | 17.53 | 35.06 | 175.30 | 350.60 | 5.81 | 7.01 | 7.01 |
| 6.0 YEARS ( 6/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 5.89 | 7.01 | 7.01 |
| 6.5 YEARS (12/1/81) | 17.53 | 35.06 | 175.30 | 350.60 | 5.97 | 7.01 | 7.01 |
| 7.0 YEARS ( 6/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.03 | 7.01 | 7.01 |
| 7.5 YEARS (12/1/82) | 17.53 | 35.06 | 175.30 | 350.60 | 6.08 | 7.01 | 7.01 |
| 8.0 YEARS ( 6/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.12 | 7.01 | 7.01 |
| 8.5 YEARS (12/1/83) | 17.53 | 35.06 | 175.30 | 350.60 | 6.16 | 7.01 | 7.01 |
| 9.0 YEARS ( 6/1/84) | 17.53 | 35.06 | 175.30 | 350.60 | 6.20 | 7.01 | 7.01 |
| 9.5 YEARS (12/1/84) | 17.53 | 35.06 | 175.30 | 350.60 | 6.23 | 7.01 | 7.01 |
| 10.0 YEARS 2/ ( 6/1/85) | 17.53 | 35.06 | 175.30 | 350.60 | 6.26 | 7.01 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1975. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 48-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1975

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/85) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . (12/1/95) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . . ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1975. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.34%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.37%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 49

BONDS BEARING ISSUE DATES FROM DEC. 1, 1975 THROUGH MAY 1, 1976

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 3.5 YEARS 1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.55 | 5.80 | 6.82 |
| 4.0 YEARS (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.64 | 6.30 | 6.88 |
| 4.5 YEARS ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.70 | 6.30 | 6.94 |
| 5.0 YEARS (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 7.02 |
| 5.5 YEARS ( 6/1/81) | 17.54 | 35.08 | 175.40 | 350.80 | 5.85 | 7.02 | 7.02 |
| 6.0 YEARS (12/1/81) | 17.54 | 35.08 | 175.40 | 350.80 | 5.93 | 7.02 | 7.02 |
| 6.5 YEARS ( 6/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 6.00 | 7.02 | 7.02 |
| 7.0 YEARS (12/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 6.06 | 7.02 | 7.02 |
| 7.5 YEARS ( 6/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.11 | 7.02 | 7.02 |
| 8.0 YEARS (12/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.16 | 7.02 | 7.02 |
| 8.5 YEARS ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.20 | 7.02 | 7.02 |
| 9.0 YEARS (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.23 | 7.02 | 7.02 |
| 9.5 YEARS ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.26 | 7.02 | 7.02 |
| 10.0 YEARS 2/ (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1975. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 49-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1975 THROUGH MAY 1, 1976

| ISSUE PRICE . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS. | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/86) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . (12/1/86) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . ( 6/1/96) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/. . . (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1975. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.36%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.38%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 50

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1976

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 3.0 YEARS . . .1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.51 | 5.80 | 6.78 |
| 3.5 YEARS . . . . (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.62 | 6.30 | 6.82 |
| 4.0 YEARS . . . . ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.70 | 6.30 | 6.88 |
| 4.5 YEARS . . . . (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 6.94 |
| 5.0 YEARS . . . . ( 6/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.80 | 6.30 | 7.02 |
| 5.5 YEARS . . . . (12/1/81) | 17.54 | 35.08 | 175.40 | 350.80 | 5.90 | 7.02 | 7.02 |
| 6.0 YEARS . . . ( 6/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 5.98 | 7.02 | 7.02 |
| 6.5 YEARS . . . . (12/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 6.04 | 7.02 | 7.02 |
| 7.0 YEARS . . . . ( 6/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.10 | 7.02 | 7.02 |
| 7.5 YEARS . . . . (12/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.15 | 7.02 | 7.02 |
| 8.0 YEARS . . . . ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.19 | 7.02 | 7.02 |
| 8.5 YEARS . . . . (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.23 | 7.02 | 7.02 |
| 9.0 YEARS . . . . ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.26 | 7.02 | 7.02 |
| 9.5 YEARS . . . . (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | 7.02 |
| 10.0 YEARS 2/. . . ( 6/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.31 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1976. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 50-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1976

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/86) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/. . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . (12/1/96) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . . ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1976. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.38%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.40%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 51

BONDS BEARING ISSUE DATES FROM DEC. 1, 1976 THROUGH MAY 1, 1977

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 2.5 YEARS . . .1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.46 | 5.80 | 6.74 |
| 3.0 YEARS . . . . (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.59 | 6.30 | 6.78 |
| 3.5 YEARS . . . . ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.69 | 6.30 | 6.82 |
| 4.0 YEARS . . . . (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 6.88 |
| 4.5 YEARS . . . . ( 6/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.81 | 6.30 | 6.94 |
| 5.0 YEARS . . . . (12/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.85 | 6.30 | 7.02 |
| 5.5 YEARS . . . . ( 6/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 5.94 | 7.02 | 7.02 |
| 6.0 YEARS . . . . (12/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 6.02 | 7.02 | 7.02 |
| 6.5 YEARS . . . . ( 6/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.08 | 7.02 | 7.02 |
| 7.0 YEARS . . . . (12/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.13 | 7.02 | 7.02 |
| 7.5 YEARS . . . . ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.18 | 7.02 | 7.02 |
| 8.0 YEARS . . . . (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.22 | 7.02 | 7.02 |
| 8.5 YEARS . . . . ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.26 | 7.02 | 7.02 |
| 9.0 YEARS . . . . (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | 7.02 |
| 9.5 YEARS . . . . ( 6/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.32 | 7.02 | 7.02 |
| 10.0 YEARS 2/. . . (12/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.34 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1976. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 51-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1976 THROUGH MAY 1, 1977

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | | | |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS .1/ ( 6/1/87) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . (12/1/87) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . ( 6/1/97) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1976. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.40%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.41%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 52

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1977

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTERFST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 2.0 YEARS . . .1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.38 | 5.80 | 6.70 |
| 2.5 YEARS . . . . (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.56 | 6.30 | 6.74 |
| 3.0 YEARS . . . . ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.67 | 6.30 | 6.78 |
| 3.5 YEARS . . . . (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 6.82 |
| 4.0 YEARS . . . . ( 6/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.82 | 6.30 | 6.88 |
| 4.5 YEARS . . . . (12/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.86 | 6.30 | 6.94 |
| 5.0 YEARS . . . . ( 6/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 5.90 | 6.30 | 7.02 |
| 5.5 YEARS . . . . (12/1/82) | 17.54 | 35.08 | 175.40 | 350.80 | 5.99 | 7.02 | 7.02 |
| 6.0 YEARS . . . . ( 6/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.06 | 7.02 | 7.02 |
| 6.5 YEARS . . . . (12/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.12 | 7.02 | 7.02 |
| 7.0 YEARS . . . . ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.17 | 7.02 | 7.02 |
| 7.5 YEARS . . . . (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.22 | 7.02 | 7.02 |
| 8.0 YEARS . . . . ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.26 | 7.02 | 7.02 |
| 8.5 YEARS . . . . (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | 7.02 |
| 9.0 YEARS . . . . ( 6/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.32 | 7.02 | 7.02 |
| 9.5 YEARS . . . . (12/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.35 | 7.02 | 7.02 |
| 10.0 YEARS 2/. . ( 6/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.37 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1977. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 52-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1977

| ISSUE PRICE . . . . . REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/87) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . ( 6/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . (12/1/97) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . . . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . . (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . . ( 6/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1977. FOR SUBSEQUENT ISSUE MONTHS AND APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.42%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.43%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 53

BONDS BEARING ISSUE DATES FROM DEC. 1, 1977 THROUGH MAY 1, 1978

| ISSUE PRICE AND REDEMPTION AND MATURITY VALUE | $500 500 | $1,000 1,000 | $5,000 5,000 | $10,000 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 1.5 YEARS 1/ | ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 5.25 | 5.80 | 6.67 |
| 2.0 YEARS | (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.50 | 6.30 | 6.70 |
| 2.5 YEARS | ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.66 | 6.30 | 6.74 |
| 3.0 YEARS | (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 6.78 |
| 3.5 YEARS | ( 6/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.83 | 6.30 | 6.82 |
| 4.0 YEARS | (12/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.88 | 6.30 | 6.88 |
| 4.5 YEARS | ( 6/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 5.92 | 6.30 | 6.94 |
| 5.0 YEARS | (12/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 5.96 | 6.30 | 7.02 |
| 5.5 YEARS | ( 6/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.04 | 7.02 | 7.02 |
| 6.0 YEARS | (12/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.11 | 7.02 | 7.02 |
| 6.5 YEARS | ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.16 | 7.02 | 7.02 |
| 7.0 YEARS | (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.21 | 7.02 | 7.02 |
| 7.5 YEARS | ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.25 | 7.02 | 7.02 |
| 8.0 YEARS | (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | 7.02 |
| 8.5 YEARS | ( 6/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.32 | 7.02 | 7.02 |
| 9.0 YEARS | (12/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.35 | 7.02 | 7.02 |
| 9.5 YEARS | ( 6/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.38 | 7.02 | 7.02 |
| 10.0 YEARS 2/ | (12/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.40 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1977. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEPEST CHECKS AND YIELDS SEE APPPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 53-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1977 THROUGH MAY 1, 1978

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ ( 6/1/88) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/88) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS ( 6/1/98) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ (12/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1977. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.43%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.44%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 54

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1978

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION * | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| 1.0 YEARS . . .1/ ( 6/1/79) | $14.50 | $29.00 | $145.00 | $290.00 | 4.99 | 5.80 | 6.65 |
| 1.5 YEARS . . . (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.42 | 6.30 | 6.67 |
| 2.0 YEARS . . . . ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.63 | 6.30 | 6.70 |
| 2.5 YEARS . . . . (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 6.74 |
| 3.0 YEARS . . . . ( 6/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.84 | 6.30 | 6.78 |
| 3.5 YEARS . . . (12/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.90 | 6.30 | 6.82 |
| 4.0 YEARS . . ( 6/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 5.95 | 6.30 | 6.88 |
| 4.5 YEARS . . . . (12/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 5.98 | 6.30 | 6.94 |
| 5.0 YEARS . . . . ( 6/1/83) | 15.76 | 31.52 | 157.60 | 315.20 | 6.01 | 6.30 | 7.02 |
| 5.5 YEARS . . . . (12/1/83) | 17.54 | 35.08 | 175.40 | 350.80 | 6.09 | 7.02 | 7.02 |
| 6.0 YEARS . . . . ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.15 | 7.02 | 7.02 |
| 6.5 YEARS . . . . (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.21 | 7.02 | 7.02 |
| 7.0 YEARS . . . . ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.25 | 7.02 | 7.02 |
| 7.5 YEARS . . . . (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | 7.02 |
| 8.0 YEARS . . . ( 6/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.33 | 7.02 | 7.02 |
| 8.5 YEARS . . . . (12/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.36 | 7.02 | 7.02 |
| 9.0 YEARS . . . ( 6/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.39 | 7.02 | 7.02 |
| 9.5 YEARS . . . (12/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.41 | 7.02 | 7.02 |
| 10.0 YEARS 2/. . ( 6/1/88) | 17.54 | 35.08 | 175.40 | 350.80 | 6.43 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1978. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

* FOR EARLIER INTEREST CHECKS AND YIELDS SEE APPROPRIATE TABLE IN DEPARTMENT CIRCULAR 905, 6TH REVISION, AS AMENDED AND SUPPLEMENTED.

TABLE 54-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1978

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS .1/ | (12/1/88) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ | ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS | (12/1/98) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | ( 6/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | (12/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ | ( 6/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1978. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.46%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.46%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 55

BONDS BEARING ISSUE DATES FROM DEC. 1, 1978 THROUGH MAY 1, 1979

| ISSUE PRICE . . . . . | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ ( 6/1/79) | $10.50 | $21.00 | $105.00 | $210.00 | 4.20 | 4.20 | 6.62 |
| 1.0 YEARS . . . (12/1/79) | 15.76 | 31.52 | 157.60 | 315.20 | 5.24 | 6.30 | 6.65 |
| 1.5 YEARS . . . . ( 6/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.58 | 6.30 | 6.67 |
| 2.0 YEARS . . . . (12/1/80) | 15.76 | 31.52 | 157.60 | 315.20 | 5.76 | 6.30 | 6.70 |
| 2.5 YEARS . . ( 6/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.86 | 6.30 | 6.74 |
| 3.0 YEARS . . . . (12/1/81) | 15.76 | 31.52 | 157.60 | 315.20 | 5.93 | 6.30 | 6.78 |
| 3.5 YEARS . . ( 6/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 5.98 | 6.30 | 6.82 |
| 4.0 YEARS . . . . (12/1/82) | 15.76 | 31.52 | 157.60 | 315.20 | 6.01 | 6.30 | 6.88 |
| 4.5 YEARS . . ( 6/1/83) | 15.76 | 31.52 | 157.60 | 315.20 | 6.04 | 6.30 | 6.94 |
| 5.0 YEARS . . . . (12/1/83) | 15.76 | 31.52 | 157.60 | 315.20 | 6.06 | 6.30 | 7.02 |
| 5.5 YEARS . . . . ( 6/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.14 | 7.02 | 7.02 |
| 6.0 YEARS . . (12/1/84) | 17.54 | 35.08 | 175.40 | 350.80 | 6.20 | 7.02 | 7.02 |
| 6.5 YEARS . . . ( 6/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.25 | 7.02 | 7.02 |
| 7.0 YEARS . . . . (12/1/85) | 17.54 | 35.08 | 175.40 | 350.80 | 6.29 | 7.02 | 7.02 |
| 7.5 YEARS . . . . ( 6/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.33 | 7.02 | 7.02 |
| 8.0 YEARS . . . . (12/1/86) | 17.54 | 35.08 | 175.40 | 350.80 | 6.37 | 7.02 | 7.02 |
| 8.5 YEARS . . . ( 6/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.39 | 7.02 | 7.02 |
| 9.0 YEARS . . . (12/1/87) | 17.54 | 35.08 | 175.40 | 350.80 | 6.42 | 7.02 | 7.02 |
| 9.5 YEARS . . . . ( 6/1/88) | 17.54 | 35.08 | 175.40 | 350.80 | 6.44 | 7.02 | 7.02 |
| 10.0 YEARS 2/. . . (12/1/88) | 17.54 | 35.08 | 175.40 | 350.80 | 6.46 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1978. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

TABLE 55-A

BONDS BEARING ISSUE DATES FROM DEC. 1, 1978 THROUGH MAY 1, 1979

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ | ( 6/1/89) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | (12/1/89) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ | (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS | ( 6/1/99) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS | (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS | ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS | (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS | ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS | (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS | ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS | (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS | ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS | (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS | ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS | (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS | ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS | (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS | ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS | (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS | ( 6/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS | (12/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS | ( 6/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ | (12/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1978. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.48%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.48%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 56

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1979

| ISSUE PRICE<br>REDEMPTION AND MATURITY VALUE | $500<br>500 | $1,000<br>1,000 | $5,000<br>5,000 | $10,000<br>10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ (12/1/79) | $11.77 | $23.54 | $117.70 | $235.40 | 4.71 | 4.71 | 6.63 |
| 1.0 YEARS ( 6/1/80) | 15.77 | 31.54 | 157.70 | 315.40 | 5.50 | 6.31 | 6.65 |
| 1.5 YEARS (12/1/80) | 15.77 | 31.54 | 157.70 | 315.40 | 5.76 | 6.31 | 6.68 |
| 2.0 YEARS ( 6/1/81) | 15.77 | 31.54 | 157.70 | 315.40 | 5.89 | 6.31 | 6.71 |
| 2.5 YEARS (12/1/81) | 15.77 | 31.54 | 157.70 | 315.40 | 5.97 | 6.31 | 6.74 |
| 3.0 YEARS ( 6/1/82) | 15.77 | 31.54 | 157.70 | 315.40 | 6.02 | 6.31 | 6.78 |
| 3.5 YEARS (12/1/82) | 15.77 | 31.54 | 157.70 | 315.40 | 6.06 | 6.31 | 6.83 |
| 4.0 YEARS ( 6/1/83) | 15.77 | 31.54 | 157.70 | 315.40 | 6.09 | 6.31 | 6.88 |
| 4.5 YEARS (12/1/83) | 15.77 | 31.54 | 157 70 | 315.40 | 6.11 | 6.31 | 6.94 |
| 5.0 YEARS ( 6/1/84) | 15.77 | 31.54 | 157.70 | 315.40 | 6.13 | 6.31 | 7.02 |
| 5.5 YEARS (12/1/84) | 17.55 | 35.10 | 175.50 | 351.00 | 6.19 | 7.02 | 7.02 |
| 6.0 YEARS ( 6/1/85) | 17.55 | 35.10 | 175.50 | 351.00 | 6.25 | 7.02 | 7.02 |
| 6.5 YEARS (12/1/85) | 17.55 | 35.10 | 175.50 | 351.00 | 6.30 | 7.02 | 7.02 |
| 7.0 YEARS ( 6/1/86) | 17.55 | 35.10 | 175.50 | 351.00 | 6.34 | 7.02 | 7.02 |
| 7.5 YEARS (12/1/86) | 17.55 | 35.10 | 175.50 | 351.00 | 6.38 | 7.02 | 7.02 |
| 8.0 YEARS ( 6/1/87) | 17.55 | 35.10 | 175.50 | 351.00 | 6.41 | 7.02 | 7.02 |
| 8.5 YEARS (12/1/87) | 17.55 | 35.10 | 175.50 | 351.00 | 6.44 | 7.02 | 7.02 |
| 9.0 YEARS ( 6/1/88) | 17.55 | 35.10 | 175.50 | 351.00 | 6.46 | 7.02 | 7.02 |
| 9.5 YEARS (12/1/88) | 17.55 | 35.10 | 175.50 | 351.00 | 6.48 | 7.02 | 7.02 |
| 10.0 YEARS 2/ ( 6/1/89) | 17.55 | 35.10 | 175.50 | 351.00 | 6.50 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1979. FOR SUBSEQUENT ISSUE MONTHS ADD APPROPRIATE NUMBER OF MONTHS.

2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

TABLE 56-A

BONDS BEARING ISSUE DATES FROM JUNE 1 THROUGH NOV. 1, 1979

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS . . .1/ (12/1/89) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . ( 6/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . . (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . . (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ . ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS . . . . (12/1/99) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS . . . ( 6/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS . . . (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS . . ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS . . . . (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS . . . . ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS . . . (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS . . . . ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS . . . . (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS . . . . ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS . . . . (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS . . . . ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS . . (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS . . . ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS . . . . (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS . . . . ( 6/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS . . . . (12/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS . . . . ( 6/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS . . (12/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ . . ( 6/1/ 9) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF JUNE 1, 1979. FOR SUBSEQUENT ISSUE MONTHS AUD APPROPRIATE NUMBER OF MONTHS.

2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.

3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.50%.

4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.

5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.50%.

** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

TABLE 57

BONDS BEARING ISSUE DATE DEC. 1, 1979

| ISSUE PRICE | $500 | $1,000 | $5,000 | $10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| REDEMPTION AND MATURITY VALUE | 500 | 1,000 | 5,000 | 10,000 | | | |
| PERIOD OF TIME BOND IS HELD AFTER ISSUE DATE | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION | | | | (2) FROM ISSUE TO EACH INTEREST PAYMENT DATE | (3) FOR HALF-YEAR PERIOD PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PAYMENT DATE TO MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ ( 6/1/80) | $11 77 | $23.54 | $117 70 | $235.40 | 4.71 | 4.71 | 6.63 |
| 1.0 YEARS (12/1/80) | 15.77 | 31.54 | 157.70 | 315.40 | 5.50 | 6.31 | 6.65 |
| 1.5 YEARS ( 6/1/81) | 15.77 | 31.54 | 157.70 | 315.40 | 5.76 | 6.31 | 6.68 |
| 2.0 YEARS (12/1/81) | 15.77 | 31.54 | 157.70 | 315.40 | 5.89 | 6.31 | 6.71 |
| 2.5 YEARS ( 6/1/82) | 15.77 | 31.54 | 157.70 | 315.40 | 5.97 | 6.31 | 6.74 |
| 3.0 YEARS (12/1/82) | 15.77 | 31.54 | 157.70 | 315.40 | 6.02 | 6.31 | 6.78 |
| 3.5 YEARS ( 6/1/83) | 15.77 | 31.54 | 157.70 | 315.40 | 6.04 | 6.31 | 6.83 |
| 4.0 YEARS (12/1/83) | 15.77 | 31.54 | 157.70 | 315.40 | 6.09 | 6.31 | 6.88 |
| 4.5 YEARS ( 6/1/84) | 15.77 | 31.54 | 157.70 | 315.40 | 6.11 | 6.31 | 6.94 |
| 5.0 YEARS (12/1/84) | 15.77 | 31.54 | 157.70 | 315.40 | 6.13 | 6.31 | 7.02 |
| 5.5 YEARS ( 6/1/85) | 17.55 | 35.10 | 175.50 | 351.00 | 6.19 | 7.02 | 7.02 |
| 6.0 YEARS (12/1/85) | 17.55 | 35.10 | 175.50 | 351.00 | 6.25 | 7.02 | 7.02 |
| 6.5 YEARS ( 6/1/86) | 17.55 | 35.10 | 175.50 | 351.00 | 6.30 | 7.02 | 7.02 |
| 7.0 YEARS (12/1/86) | 17.55 | 35.10 | 175.50 | 351.00 | 6.34 | 7.02 | 7.02 |
| 7.5 YEARS ( 6/1/87) | 17.55 | 35.10 | 175.50 | 351.00 | 6.38 | 7.02 | 7.02 |
| 8.0 YEARS (12/1/87) | 17.55 | 35.10 | 175.50 | 351.00 | 6.41 | 7.02 | 7.02 |
| 8.5 YEARS ( 6/1/88) | 17.55 | 35.10 | 175.50 | 351.00 | 6.44 | 7.02 | 7.02 |
| 9.0 YEARS (12/1/88) | 17.55 | 35.10 | 175.50 | 351.00 | 6.46 | 7.02 | 7.02 |
| 9.5 YEARS ( 6/1/89) | 17.55 | 35.10 | 175.50 | 351.00 | 6.48 | 7.02 | 7.02 |
| 10.0 YEARS 2/ (12/1/89) | 17.55 | 35.10 | 175.50 | 351.00 | 6.50 | 7.02 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1979.
2/ MATURITY REACHED AT 10 YEARS AND 0 MONTHS AFTER ISSUE DATE.

TABLE 57-A

BONDS BEARING ISSUE DATE DEC. 1, 1979

| ISSUE PRICE / REDEMPTION AND MATURITY VALUE | $500 / 500 | $1,000 / 1,000 | $5,000 / 5,000 | $10,000 / 10,000 | APPROXIMATE INVESTMENT YIELD (ANNUAL PERCENTAGE RATE) | | |
|---|---|---|---|---|---|---|---|
| PERIOD OF TIME BOND IS HELD AFTER FIRST MATURITY AT 10 YEARS, 0 MONTHS | (1) AMOUNTS OF INTEREST CHECKS FOR EACH DENOMINATION — EXTENDED MATURITY PERIOD ** | | | | (2) FROM BEGINNING OF CURRENT MATURITY PD. TO EA. INTEREST PMT. DATE | (3) FOR HALF-YEAR PD. PRECEDING INTEREST PAYMENT DATE | (4) FROM EACH INTEREST PMT. DATE TO FIRST EXTENDED MATURITY |
| | | | | | PERCENT | PERCENT | PERCENT |
| .5 YEARS 1/ ( 6/1/90) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/90) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/91) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/92) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/93) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/94) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/95) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/96) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/97) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/98) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 2/ (12/1/99) | 16.25 | 32.50 | 162.50 | 325.00 | 3/ 6.50 | 6.50 | ---- |
| PERIOD OF TIME BOND IS HELD AFTER EXTENDED MATURITY AT 20 YEARS, 0 MONTHS | SECOND EXTENDED MATURITY PERIOD ** | | | | | | TO 2ND EXTENDED MATURITY |
| .5 YEARS ( 6/1/ 0) | $16.25 | $32.50 | $162.50 | $325.00 | 6.50 | 6.50 | 6.50 |
| 1.0 YEARS (12/1/ 0) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 1.5 YEARS ( 6/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.0 YEARS (12/1/ 1) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 2.5 YEARS ( 6/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.0 YEARS (12/1/ 2) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 3.5 YEARS ( 6/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.0 YEARS (12/1/ 3) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 4.5 YEARS ( 6/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.0 YEARS (12/1/ 4) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 5.5 YEARS ( 6/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.0 YEARS (12/1/ 5) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 6.5 YEARS ( 6/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.0 YEARS (12/1/ 6) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 7.5 YEARS ( 6/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.0 YEARS (12/1/ 7) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 8.5 YEARS ( 6/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.0 YEARS (12/1/ 8) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 9.5 YEARS ( 6/1/ 9) | 16.25 | 32.50 | 162.50 | 325.00 | 6.50 | 6.50 | 6.50 |
| 10.0 YEARS 4/ (12/1/ 9) | 16.25 | 32.50 | 162.50 | 325.00 | 5/ 6.50 | 6.50 | ---- |

1/ MONTH, DAY AND YEAR ON WHICH INTEREST CHECK IS PAYABLE ON ISSUES OF DEC. 1, 1979.
2/ EXTENDED MATURITY REACHED AT 20 YEARS AND 0 MONTHS AFTER ISSUE DATE.
3/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO EXTENDED MATURITY IS 6.50%.
4/ SECOND EXTENDED MATURITY REACHED AT 30 YEARS AND 0 MONTHS AFTER ISSUE DATE.
5/ YIELD ON PURCHASE PRICE FROM ISSUE DATE TO SECOND EXTENDED MATURITY IS 6.50%.
** THIS TABLE DOES NOT APPLY IF THE PREVAILING RATE FOR SERIES H BONDS AT THE TIME THE EXTENSION BEGINS IS DIFFERENT FROM 6.50 PERCENT.

APPENDIX

Summary of investment yields to maturity and extended maturity dates under regulations prescribed for Series H savings bonds with issue dates from June 1, 1952.*

| Issues | Term to maturity (years and months) | | Yield[1] during maturity period | | | | | | | Yield[1] during extended maturity period (10 years) | | | | | | | Yield[1] during second extended maturity period (10 years) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1959 | 1965 | 1968 | 1969 | 1970 | 1973 | 1979 | | 1965 | 1968 | 1969 | 1970 | 1973 | 1979 | | 1973 | 1979 |
| 6/52- 3/54 | 9-8 | 3.00 | +.50 | | | | | | | 3.75e | +.40 | +.10b | 5.00 | +.50e | | | 5.50e | +.50e | +.50e |
| 4/54- 9/54 | 9-8 | 3.00 | +.50 | | | | | | | 3.75e | +.40 | +.10b | 5.00 | +.50e | | | 6.00e | | +.50e |
| 10/54- 9/55 | 9-8 | 3.00 | +.50 | | | | | | | 3.75e | +.40 | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | +.50e |
| 10/55- 3/56 | 9-8 | 3.00 | +.50 | | | | | | | 3.75e | +.40 | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | +.50e |
| 4/56-11/56 | 9-8 | 3.00 | +.50 | | | | | | | 4.15e | | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | +.50e |
| 12/56- 1/57 | 9-8 | 3.00 | +.50 | +.40 | | | | | | 4.15e | | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | +.50e |
| 2/57- 5/58 | 10-0 | 3.25 | +.50 | +.40 | | | | | | 4.15e | | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | +.50e |
| 6/58- 5/59 | 10-0 | 3.25 | +.50 | +.40 | | | | | | 4.25b | | | 5.00 | +.50e | +.50e | | 6.00e | | +.50e |
| 6/59-11/59 | 10-0 | 3.75 | | +.40 | +.10b | | | | | 5.00e | | | | +.50e | +.50e | | 6.50e[2] | | |
| 12/59- 5/60 | 10-0 | 3.75 | | +.40 | +.10b | | | | | 5.00e | | | | +.50e | +.50e | +.50e | 6.50e[2] | | |
| 6/60-11/60 | 10-0 | 3.75 | | +.40 | +.10b | | | | | 5.50e | | | | | +.50e | +.50e | 6.50e[2] | | |
| 12/60-12/61 | 10-0 | 3.75 | | +.40 | +.10b | 5.00 | | | | 5.50e | | | | | +.50e | +.50e | 6.50e[2] | | |
| 1/62-11/63 | 10-0 | 3.75 | | +.40 | +.10b | 5.00 | +.50e | | | 5.50e | | | | | +.50e | +.50e | 6.50e[2] | | |
| 12/63- 5/64 | 10-0 | 3.75 | | +.40 | +.10b | 5.00 | +.50e | | | 6.00e | | | | | | +.50e | 6.50e[2] | | |
| 6/64- 5/65 | 10-0 | 3.75 | | +.40 | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | | | | | +.50e | 6.50e[2] | | |
| 6/65-11/65 | 10-0 | 3.75 | | +.40 | +.10b | 5.00 | +.50e | +.50e | | 6.00e | | | | | | +.50e | 6.50e[2] | | |
| 12/65- 5/68 | 10-0 | 4.15 | | | +.10b | 5.00 | +.50b | +.50e | | 6.00e | | | | | | +.50e | 6.50e[2] | | |
| 6/68- 5/69 | 10-0 | 4.25b | | | | 5.00 | +.50b | +.50e | | 6.00e | | | | | | +.50e | 6.50e[2] | | |
| 6/69-11/69 | 10-0 | 5.00 | | | | | +.50b | +.50e | | 6.50e[2] | | | | | | | 6.50e[2] | | |
| 12/69- 5/70 | 10-0 | 5.00 | | | | | +.50b | +.50e | +.50e | 6.50e[2] | | | | | | | 6.50e[2] | | |
| 6/70-11/73 | 10-0 | 5.50 | | | | | | +.50e | +.50e | 6.50e[2] | | | | | | | 6.50e[2] | | |
| 12/73- 5/79 | 10-0 | 6.00 | | | | | | | +.50e | 6.50e[2] | | | | | | | 6.50e[2] | | |
| 6/79-12/79 | 10-0 | 6.50 | | | | | | | | 6.50e[2] | | | | | | | 6.50e[2] | | |

1/ All yields are in terms of percent per annum, compounded semiannually. The first figure in each maturity period is the overall yield for that period at time of entry into period. Interest payments are on a graduated basis unless otherwise indicated, the full rate being received only if held to the end of the period (lesser rate if redeemed earlier). An "e" indicates payments on an approximately level basis. A "b" indicates increased interest on a bonus basis, that is, the full rate is received only if the bond is held to the end of the period (no increase if redeemed earlier). Rate increases within periods took effect at the beginning of the first full half-year interest period starting on or after the effective date as follows:

1959 - graduated improvements in rate to next maturity beginning June 1, 1959.
1965 - graduated improvement in rate to next maturity beginning Dec. 1, 1965.
1968 - bonus improvement in rate to next maturity beginning June 1, 1968.
1969 - maximum rate to next maturity beginning June 1, 1969.
1970 - level and bonus improvements in rate to next maturity beginning June 1, 1970. In the case of .50b the increase is spread over the second 5 years of maturity period.
1973 - level improvement in rate to next maturity beginning Dec. 1, 1973.
1979 - level improvement in rate to next maturity beginning June 1, 1979.

2/ Yield does not apply if prevailing rate for Series H bonds at time extension begins is different from 6.50 percent.

* The purpose of this table is to summarize the history of yields on Series H savings bonds. Because of the graduated nature of these yields this table does not contain sufficient detail for the calculation of individual checks.

[FR Doc. 80-614 Filed 1-18-80; 8:45 am]

BILLING CODE 4810-40-C

Federal Register

Monday
January 21, 1980

Part IV

# Department of Commerce

National Oceans and Atmospheric Administration

## Coastal Energy Impact Program; Regulations to Establish the Outer Continental Shelf (OCS) State Participation Grant Program

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**15 CFR Part 931**

## Coastal Energy Impact Program; Regulations to Establish the Outer Continental Shelf (OCS) State Participation Grant Program

**AGENCY:** National Oceanic and Atmospheric Administration (NOAA) Department of Commerce.

**ACTION:** Final rule.

**SUMMARY:** These final regulations describe administrative procedures for implementing section 308(c)(2) of the Coastal Zone Management Act of 1972, as amended, (CZMA) (16 U.S.C. 1451, *et seq.*). Section 308(c)(2) establishes the Outer Continental Shelf (OCS) State Participation Grant Program which provides financial assistance for coastal state participation in policy, planning and managerial decisions related to management of OCS oil and gas resources.

**EFFECTIVE DATE:** These regulations are effective January 21, 1980.

**FOR FURTHER INFORMATION CONTACT:** Dan Hoydysh, Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, 3300 Whitehaven Street, N.W., Washington, D.C. 20235 (202) 634–4128.

**SUPPLEMENTARY INFORMATION:** I. Explanatory Statement. The Coastal Energy Impact Program (CEIP) was created by the Coastal Zone Management Act Amendments of 1976 (Pub. L. 94–370). The CEIP provides coastal States and communities with financial assistance for mitigating the adverse impacts from OCS and other coastal energy development activity.

The OCS Lands Act Amendments of 1978 (OCSLAA) (Pub. L. 95–372) amended the CEIP Program by adding a fund for the provision of grants to allow coastal States to carry out their responsibilities under the OCS Lands Act. The OCS State Participation Grant Program established under new Section 308(c)(2) of the CZMA provides up to 80% federally funded grants to coastal States likely to be affected by OCS energy activity. These grants are to be used to cover the costs of participating in policy, planning and managerial decisions relating to the development of OCS oil and natural gas resources. These grants are not to be used to cover any of the site-specific planning, construction, or property acquisition costs provided for in other provisions of the CEIP. OCS State participation grants are authorized at $5 million a year for five fiscal years—Fiscal Year 1979 through Fiscal Year 1983.

NOAA has authority to issue final regulations under Sections 308 and 317 of the CZMA.

NOAA has determined that publication of these final rules is not a major action significantly affecting the quality of the human environment and does not require preparation of an Environmental Impact Statement under the National Environmental Policy Act of 1969. NOAA also has determined that these regulations are not a significant regulatory action and do not require preparation of a regulatory analysis under Executive Order 12044.

These final regulations will become effective on publication. This is necessary because OCS participation grants may not be awarded until the regulations are in effect. Publication of these final regulations was delayed because it was not until November 1979 that NOAA decided to reprogram $3 million for Section 308(c)(2) purposes. Further delay in providing OCS participation assistance will greatly hamper State participation in current OCS-related decisions and may lead to delay in development of OCS oil and natural gas resources. Therefore, pursuant to 5 U.S.C. 553(d)(3) NOAA finds that for good cause the effective date of these regulations should not be delayed for 30 days after publication.

### II. Summary of Major Provisions of the Final Regulations

*Eligibility for Grants.* Under Section 308(c)(2) NOAA's Assistant Administrator for Coastal Zone Management ("Assistant Administrator") is authorized to make grants to coastal States likely to be affected by OCS energy activity. Only those States eligible to receive CEIP assistance, as described in Subpart C of Part 931, may receive a Section 308(c)(2) grant. Local communities are eligible to receive OCS participation funds. However, there is no requirement that a State allocate OCS participation grants among units of local government. States have discretion as to whether units of local government receive OCS participation funds.

*Affected State.* The Assistant Administrator will determine that a coastal State is "likely to be affected" by OCS energy activity if:

(1) The Assistant Administrator finds that the State can reasonably expect to be exposed to significant environmental, economic, or social consequences as a result of OCS energy activity associated with any OCS lease sale that has taken place or is scheduled to take place under the Department of the Interior's OCS Planning Schedule.

(2) The Assistant Administrator finds, on the basis of reasonable evidence submitted by that State, that the State has administrative, policy, operational, or managerial responsibilities under the OCS Lands Act that should properly be supported with Section 308(c)(2) funds. When making this determination, the Assistant Administrator will consider designations of "affected" States made by the Department of the Interior (DOI) pursuant to the OCS Lands Act.

*Allowable Uses of Grants.* Grants are to be used by the States to participate in the Federal policy, operational, and managerial decisions relating to the development of OCS oil and gas resources. Specifically, these grants are intended to pay for State participation in, among others, the following activities— formulation of the OCS leasing program, reviewing and commenting on draft environmental impact statments prepared for OCS activites, commenting and making recommendations concerning exploration and development and production plans; and analyzing data transmitted to the State pursuant to the OCS oil and gas information program.

*Allotment of Available Funding.* Funding available for State participation grants will be allotted among eligible coastal States by means of a formula desinged to measure, to the maximum extent practicable, the relative administrative, policy, operational, and managerial responsibilities faced by the eligible States.

To maintain program flexibility the exact allotment formula is not specified in the regulations—i.e., the uncertainty of the OCS development process in specifying an allotment formula decreases the program's responsiveness to rapidly changing situations. However, the factors on which the allocation formula is based are specified in the regulations as follows:

(1) *Minimum Share.* Each eligible coastal State will receive an equal minimum share. The purpose of the minimum share is to assure stability in the amount of funds available to a State from fiscal year-to-year. The amount of the annual minimum share will be determined each fiscal year by the Assistant Administrator on the basis of the total amount available under Section 308(c)(2). It is the intent of the Assistant Administrator to maintain the minimum share at $75,000 when practicable.

(2) *Formula Share.* After the minimum shares are subtracted from the total amount available under section 308(c)(2), the remaining funds will be

allotted among eligible coastal States according to a formula that considers: (1) the number of times a State is determined by the Assistant Administrator to be "affected" by OCS lease sales scheduled under the OCS Planning Schedule; (2) the length of the State's marine coastline; (3) the coastal population along the marine coastline; and (4) the number of acres leased since December 1, 1975, for which a State is determined by the Assistant Administrator to be affected.

(3) *Total Allotment.* A State's total allotment will consist of the sum of the minimum share plus the formula share. The Assistant Administrator may adjust the total allotment ot reflect regional differences in costs.

(4) *State Review.* The Assistant Administrator will provide each affected State with the formula that will be used to allot Section 308(c)(2) funds before final allotments are calculated. States will have 30 days to comment on this formula. Final allotments will be made as soon as practicable after the comment period.

*Application for Grants.* An application for an OCS State participation grant must contain: (1) A clear and concise description of the activities that will be funded and their associated costs; and (2) a statement of whether funds will be allocated among units of local government. If the State decides to allocate funds among units of local government, the application must contain an explanation of how this allocation will be based, to the maximum extent practicable, on the need for OCS participation assistance.

*Reversion of Allotted Funds.* Applications for OCS participation grants must be submitted to the Office of Coastal Zone Managment (OCZM) within 120 days of the date the State is notified of its final allotment. Funds that are not applied for within this 120-day period will revert to the Assistant Administrator at the end of that period. The Assistant Administrator may reallocate reverted funds as soon as practicable or may award them to States on the basis of demonstrated need.

## III. Comments on Proposed Regulations and OCZM Responses

Proposed regulations for implementing the OCS State Participation Grants Program were published in the Federal Register on March 19, 1979, and a 45-day comment period was provided ending on May 3, 1979. All comments were given full consideration. Major comments and OCZM responses are given below.

One commentator questioned the wisdom of defining States "likely to be affected by OCS energy activity" as those affected by lease sales held after July 26, 1976. This commentator recommended that the cut-off date be moved back so that two lease sales in frontier areas—Nos. 38 (Southern California) and 39 (Alaska)—be considered when computing allotments of Section 308(c)(2) funds. Since an important objective of the CEIP is to encourage new OCS development, this suggestion was adopted and the cut-off date established as December 1, 1975, in order to allow the two frontier-area sales to be factored into the formula.

One commentator suggested that the allowable uses for OCS participation grants be expanded to include: participation in *suspension* as well as cancellation proceedings; *commenting on,* as well as reviewing, proposed environmental, safety, and other regulations; commenting on *exploration plans* and *drilling permits* as well as development and production plans. Although the list of allowable uses was not intended to be exclusive these suggestions were adopted.

One commentator suggested that the allotment formula should incorporate the "amount of oil and gas actually found" because this factor has the greatest impact on affected States. Although oil and gas "actually found" may correlate closely with the magnitude of the impacts an affected State is likely to experience, the amount found is not known until well into the exploration and development process. To include this factor in the allocation would further weight the distribution of funds away from frontier areas—where the amount "found" is not known—and to areas of existing OCS oil and gas production. It is the opinion of OCZM that the elements of the allotment formula specified in the regulations will enable the Assistant Administrator to apportion equitably available funds on the basis of relative need for OCS participation.

One commentator suggested that allowable uses of (c)(2) funds not include *any costs eligible* for coverage under other provisions of the CEIP. This suggestion is rejected. The only statutory limitation on the allowable uses of (c)(2) funds is that expenditures be related to a State's responsibilities under the OCS Lands Act. There is no statutory requirement that (c)(2) expenditures be prohibited because they could be covered under other provisions of the CEIP. The Report of the Committee of Conference on the OCSLAA, however, does state that (c)(2) funds may not be used for planning, public facility, public service, or environmental costs contained in other provisions of the CEIP. It is the position of OCZM that this limitation applies only to the use of section 308(c)(2) funds for site-specific planning, construction, and property acquisition projects that are covered under other provisions of the CEIP. Apart from these exceptions, if a proposed expenditure of section 308(c)(2) funds is required by a State to carry out its responsibilities under the OCS Lands Act, it is not material whether the proposed project could also be funded under other provisions of the CEIP.

One commentator noted that having the Secretary of the Department of the Interior (DOI) designate States as affected for purposes of eligibility under Section 308(c)(2) could lead to inequitable results because DOI and the States may differ in their perceptions of what constitutes significant impacts. The final regulations expressly provide that the Assistant Administrator determine which States are eligible for OCS participation funds. However, designations made by DOI pursuant to the OCS Lands Act will be considered by the Assistant Administrator.

The same commentator also noted that the Assistant Administrator's perspective on the existence or significance of impacts could differ from that of the States and therefore suggested that the Assistant Administrator's determinations of eligible States be filed for public comment before a final determination is made. This suggestion is rejected. The Assistant Administrator is expressly granted the authority to determine which States are eligible for section 308(c)(2) assistance. In addition, it is the intent of the Assistant Administrator to construe the concept of affected State broadly. At present, all marine coastal States, otherwise eligible under Section 308, have been found to be "affected" States for Section 308(c)(2) purposes. Under these circumstances, a public review and comment period is not necessary.

One commentator did not understand the purpose of the minimum share. The purpose of the minimum share is to provide a measure of fiscal certainty to the States—i.e., States are assured of receiving a certain amount each fiscal year.

One commentator suggested that the allotment formula take into account the anticipated extent and nature of energy resources as determined by the U.S. Geological Survey. This suggestion was rejected. It is the opinion of OCZM that the allotment formula described in the final regulations will equitably apportion available funds. In light of the speculative nature of "anticipated"

resources, it is OCZM's opinion that making the allotment formula more complicated is not justified.

One commentator suggested that coastal population be determined according to the boundaries of a given State's coastal zone. This approach is not practicable as census data does not exist in this format. Coastal population, as used in the final regulations, is that used by OCZM to compute grant allocations under Sections 305 and 306. This data has been adjusted to reflect only "marine" coastal population.

Several commentators objected to the imposition of an arbitrary ceiling on the maximum amount a State may receive under Section 308(c)(2). In response to this objection, the ceiling was removed. It is the opinion of OCZM that the allotment formula will accurately reflect relative need for OCS participation funds and that imposition of a ceiling is not necessary.

On commentator noted that length of marine coastline and population is not representative of a State's OCS responsibilities. OCZM disagrees. Although it is undisputable that any formula for calculating the need for OCS participation assistance may have deficiencies, it is OCZM's opinion that the length of marine coastline and coastal population correlate positively with a State's OCS responsibilities. Length of coastline reflects the amount of coastal resources that a State has at risk from OCS development. Population reflects the administrative burden a State may incur in its role as the interface between local communities and interest groups and the Federal Government.

One commentator suggested that lease sale areas for which no future activity is anticipated because of failure to locate commercial finds of oil and gas not be considered in the allotment formula. Under the allotment formula specified in the regulations, only those acres leased which, in the determination of the Assistant Administrator, affect a given State will be counted. Because the present allotment procedure allows the Assistant Administrator to adjust the formula for inactive lease sale areas, no change in the regulations is necessary.

One commentator requested clarification on how the marine coastline will be measured. Data on the marine coastline were obtained from a NOAA publication, *The Coastline of the United States,* and is public information.

One commentator suggested that the regulations be clarified to notify potential grant recipients of requirements to comply with OMB Circular A-95. This suggestion was accepted and the rules modified to highlight that these regulations are a subpart of CEIP regulations published previously and that applicants must refer to the full set of CEIP regulations.

Two commentators stated that conditioning eligibility for Section 308(c)(2) funds on a State meeting, the eligibility requirements for CEIP assistance established under Subpart C (Section 308(g)(1)) was contrary to Congressional intent. OCZM is explicitly required by Section 308(g)(1) of the CZMA to link eligibility for assistance under Section 308(c)(2) to a State satisfactorily participating in the coastal zone management program. Therefore, the suggestion "that references to eligibility requirements of Subpart C should be deleted" is rejected as not within the discretion of the Assistant Administrator.

One commentator suggested that the allowable uses be expanded to include dissemination of information on OCS activities to local governments and the public. This suggestion was adopted.

One commentator stated that the allotment formula should be specified in the regulations, and the Assistant Administrator's discretion in changing the allotment formula should be limited. This suggestion is rejected. The method of allotting Section 308(c)(2) funds is not specified by statute. Although the report of the Committee of Conference suggests that funds should be allotted among eligible States by "some type of formula", the report also states that "the precise system of allocation remains with" the Assistant Administrator, and that the Assistant Administrator has "considerable discretion" in administering this new program. Therefore, limiting the Assistant Administrator's discretion to modify the allotment formula is not warranted. However, the Assistant Administrator is committed to submitting to the States for comment the allotment formula before allotments are computed. In addition, the Assistant Administrator is limited to using the factors specified in the regulations when developing an allotment formula.

Several commentators suggested various technical changes to the allotment formula. The final regulations do not specify an exact allotment formula. The allotment formula will be developed in consultation with the States before allotments are calculated. Any subsequent modifications in the formula will also be sent to the States for review and comments before implementation.

One commentator objected to the statement in the proposed regulations that whether a State is likely to be affected will be determined "in light of NOAA's special concern for protecting the marine and coastal environment" as too vague a standard. This statement was deleted.

One commentator suggested that the "purpose of the CZMA and the OCS Lands Act would be better served and the taxpayers receive better assurance of value received for money spent" if expenditures under Section 308(c)(2) were subjected to an annual audit by an agency other than the Department of Commerce (DOC) and the audit report submitted to Congress. This suggestion was rejected. The Secretary of Commerce is expressly mandated to administer the OCS State Participation Program as part of the Coastal Zone Management Act. Annual audit of this program by a Federal agency other than DOC is not called for in the legislation. Sufficient administrative control exists at the DOC/NOAA level to assure efficient and equitable program operation. In addition, Congressional monitoring of the program is available through the oversight hearing mechanism.

One commentator stated that the allowable uses under Section 308(c)(2) greatly exceed the role the States are authorized to play in OCS oil and gas activities under the OCS Lands Act and that the allowable uses should be limited to the language "responsibilities under the OCS Lands Act." OCZM finds this distinction one of form rather than substance. The phrase "responsibilities under the OCS Land Act" is merely shorthand for those specific activities listed in Section 931.144. This list is taken, for the most part, directly from the amended OCS Lands Act. To restrict the uses of OCS participation funds to a State's "responsibilities" would create an unacceptable ambiguity regarding specific allowable expenditures.

One commentator suggested that the objectives of OCS participation assistance as stated on proposed § 931.142 exclude protection of the nation's valuable coastal environmental and recreational resources and the encouragement of rational and orderly development of OCS oil and gas resources. This commentator stated that the only proper objective of OCS participation assistance is to help coastal States carry out their responsibilities under the OCS Lands Act. OCZM disagrees that the objectives of OCS participation should be so narrowly stated. The purposes of Section 308(c)(2) grants should be read in the context of the purposes for which the CZMA and the CEIP were established. Accordingly, although

Section 931.142 was reworded, the substance was not changed.

One commentator stated that the costs of implementing the consistency provisions of Section 307(c)(3)(b) of the CZMA should be an allowable cost under Section 308(c)(2). OCZM disagrees. The consistency review although addressed in the OCSLAA, is not a responsibility imposed by the *OCS Lands Act.* Accordingly, funding of Section 307 consistency review should be sought under Section 306 of the CZMA rather than Section 308(c)(2).

One commentator suggested that the regulations specifically state that Section 308(c)(2) funds be used only for OCS related activities. This suggestion was accepted. A subsection was added to § 931.145 stating that Section 308(c)(2) funds can only be used in connection with a State's responsibilities under the OCS Lands Act in accordance with these regulations.

One commentator suggested that the regulations not require the State to expend allotted funds in the year in which the allotment was made. This commentator suggested States be allowed to retain funds to the following fiscal year, provided that these funds would ultimately be spent on one of the allowable uses. This suggestion was accepted. The final regulations require only that a State apply for Section 308(c)(2) funds within 120 days after the allotment is made. States are free to specify in their applications the period of time, subject to applicable Federal fiscal management requirements, over which these funds will be spent.

One commentator suggested that the allowable uses of Section 308(c)(2) funds be expanded to include cooperation with the Administrator of the Environmental Protection Agency (EPA) as well as the Secretary of the Interior in § 931.144(a)(8). This suggestion was rejected. The OCS Lands Act does not impose a responsibility on States to cooperate with EPA in the OCS decision-making process. Therefore, to allow OCS participation grants to be used for this purpose would be inconsistent with statutory authority.

One commentator suggested that the OCS participation program is intended to enable States to participate in decisions relating to the development of all OCS energy resources and that, therefore, "energy" should be substituted for "oil and gas" where appropriate. This suggestion was not accepted because the legislation predicates eligibility for Section 308(c)(2) funds on a finding that a State is likely to be affected by OCS energy activity. As defined in the CZMA, OCS energy activity refers to development of OCS oil and natural gas resources. In addition, the Report of the Committee of Conference strongly links the purposes of these grants with participation in the OCS oil and gas development process.

One commentator stated that the definition of affected State should clarify that "affected State" status under the regulations is conferred only for purposes of Section 308(c)(2) and not for purposes of Section 307(c)(3)(B) of the CZMA or for purposes of the OCS Lands Act. This suggestion was accepted.

One commentator strongly urged reconsideration of § 931.144(a)(8) which provides payment for State activities in developing cooperative agreements with the DOI for, among other things, the formulation of joint surveillance and monitoring arrangements to carry out applicable Federal and State laws, regulations, and stipulations relevant to OCS onshore and offshore operation. This commentator cited a recent opinion of the Solicitor of the DOI which held in essence that while a third party could provide supplementary information, inspections by third parties (e.g. the State) cannot replace those conducted by DOI as delegated to the U.S. Geological Survey under 30 CFR Part 250. Therefore, the commentator noted that the DOI's statutory responsibilities under the OCS Lands Act for the prevention of waste and conservation of natural resources of the OCS and the protection of correlative rights therein are nondelegable. OCZM did not delete or modify § 931.144(a)(8). The language of that section is taken from Section 19(e) of the amended OCS Lands Act. The language of the regulation does not speak in terms of delegation but cooperation. Rather than remove this allowable use on the basis of an advisory legal opinion, OCZM believes it is preferable that the scope of any cooperative agreements be worked out among DOI and the affected States.

One commentator suggested that the allowable uses be expanded to allow States to use Section 308(c)(2) funds to encourage public participation in the OCS process. This suggestion was accepted.

One commentator suggested that a separate objective be added stating that a goal of the OCS participation program is increased public participation. This suggestion was rejected. Although the encouragement of public participation is an allowable use of Section 308(c)(2) funds, OCZM believes that the OCS participation program is focused primarily on State activities. It is OCZM's policy, in accordance with the OCS Lands Act, that the State be the primary channel of communication with the Federal Government concerning OCS related policies and decisions and that each State should determine the level of public participation according to its judgment.

The regulations for awarding OCS State Participation Grants as authorized by Section 308(c)(2) of the Coastal Zone Management Act of 1972, as amended, are defined in Subpart L which follows.

Francis J. Balint,

*Acting Director, Management and Computer Systems.*

January 10, 1980.

## PART 931—COASTAL ENERGY IMPACT PROGRAM

A new Subpart L is added to Part 931 to read as set forth below.

These regulations are to be read in conjunction with CEIP Administrative Regulations published in the Federal Register on May 21, 1979 (44 FR 29580) (Part 931, Subparts A–K).

**Subpart L—OCS State Participation Grants**

Sec.

931.140 General.
931.141 Definitions.
931.142 Objectives.
931.143 Eligibility for OCS State participation grants.
931.144 Allowable uses of OCS State participation grants.
931.145 Limitations.
931.146 Allotment of available funds.
931.147 Available funds.
931.148 Allotment procedures.
931.149 Application for OCS State participation grants.
931.150 Reversion of allotted funds.
931.151 Disposition of reverted or recovered Funds.
931.152 Administrative requirements.

Authority: Sections 308 and 317, Coastal Zone Management Act of 1972, Pub. L. 92–583, 86 Stat. 1280 (16 U.S.C. 1451 *et seq.*), as amended by Pub. L. 94–370, and Pub. L. 95–372.

### Subpart L—OCS State Participation Grants

#### § 931.140 General.

This Subpart establishes administrative procedures for awarding OCS State Participation Grants under Section 308(c)(2) of the Coastal Zone Management Act of 1972 (CZMA) as amended. This Subpart states the objectives of providing these grants and their allowable uses; describes procedures for allotting among coastal States funds available under Section 308(c)(2) and the procedures for applying for these funds.

#### § 931.141 Definitions.

(a) OCS Lands Act means the Outer Continental Shelf Lands Act (43 U.S.C. 1331, *et seq.*) as amended by the Outer

Continental Shelf Lands Act Amendments of 1978 (Pub. Law 95-327).

(b) *Affected State.* (1) OCS State participation grants will be awarded only to States the Assistant Administrator finds are "likely to be affected by OCS energy activity."

(2) The Assistant Administrator will find a coastal State "likely to be affected" by OCS energy activity if the Assistant Administrator determines:

(i) That the State can reasonably expect to be exposed to significant social, economic, or environmental consequences as a result of any OCS lease sale that has taken place or is scheduled to take place under the Department of the Interior's (DOI) Five Year Planning Schedule; or,

(ii) That the State has administrative, policy, operational, or managerial responsibilities under the OCS Lands Act that should properly be supported with Section 308(c)(2) funds.

(3) When determining under this Subpart which States are likely to be affected by OCS energy activity, the Assistant Administrator will give consideration to the designations of "affected" States made by DOI under the OCS Lands Act.

(4) States will be designated "likely to be affected" under this Subpart only for purposes of eligibility under Section 308(c)(2). State eligibility under this Subpart does not confer "affected" State status under the OCS Lands Act or under Section 307(c)(3)(B).

### § 931.142 Objectives.

The objectives of assistance under this Subpart are to expedite the rational, orderly development of OCS oil and gas resources and to protect the nation's valuable coastal environmental and recreational resources by:

(a) Encouraging coastal States to carry out their responsibilities under the OCS Lands Act;

(b) Helping the coastal States develop the capability to participate effectively in Federal policy, planning, and managerial decisions relating to the development of OCS oil and gas resources; and

(c) Encouraging cooperation between the Federal and State Governments in the management of OCS oil and gas resources.

### § 931.143 Eligibility for OCS State participation grants.

(a) A coastal State is eligible for financial assistance under this Subpart if it meets the basic eligibility requirements of Subpart C of Part 931.

(b) Units of local government are eligible for assistance under this Subpart. However, the decision to grant such assistance is discretionary with the State.

### § 931.144 Allowable uses of OCS State participation grants.

(a) OCS State participation grants are to be used by States to carry out their responsibilities under the OCS Lands Act. These responsibilities include participating in the administrative, policy, operational, and managerial decisions relating to management of the oil and natural gas resources of the Outer Continental Shelf and include, but are not limited to, the following State activities:

(1) Cooperation with the Secretary of the Interior to enforce OCS-related safety, environmental, and conservation laws and regulations.

(2) Participation in hearings conducted by the Secretary of the Interior with respect to issuance, extension, cancellation or suspension of OCS-related leases or permits.

(3) Participation in hearings held by the Federal Energy Regulatory Commission (FERC) with respect to amounts of OCS oil or natural gas that will be transported ashore in pipelines.

(4) Participation in hearings held by FERC concerning the expansion of pipeline capacities by shippers of OCS oil or natural gas.

(5) Reviewing Federal actions significantly affecting the OCS or its development to the extent these actions relate to OCS energy activity.

(6) Developing and implementing cooperative agreements with respect to the leasing of OCS lands immediately adjacent to State seaward boundaries.

(7) Participating in formulating the OCS leasing program.

(8) Developing cooperative agreements with the Department of the Interior for sharing information, joint utilization of available expertise, facilitating permitting procedures, joint planning and review, and the formulation of joint surveillance and monitoring arrangements to carry out applicable Federal and State laws, regulations, and stipulations relevant to OCS onshore and offshore operations.

(9) Cooperating with the Secretary of the Interior in carrying out environmental studies in any area included in any OCS oil and gas lease sale.

(10) Reviewing and commenting on proposed environmental, operational, safety, and other regulations that are prepared and promulgated by any Federal department or agency and applicable to the Outer Continental Shelf to the extent they are related to OCS energy activity.

(11) Reviewing, commenting on, and making recommendations concerning OCS exploration plans, development and production plans, drilling permits, and environmental reports.

(12) Reviewing and commenting on draft environmental impact statements on OCS activities governed by the OCS Lands Act.

(13) Reviewing, commenting on and analyzing any data transmitted to the State by the Secretary of the Interior pursuant to the OCS oil and gas information program. This includes inspecting any privileged information received by the Secretary regarding any OCS activity adjacent to the State.

(14) Participating in OCS policy, scientific and technical advisory board meetings established by the Department of the Interior and other OCS-related meetings called by the Department of Energy, the National Oceanic and Atmospheric Administration, or any other Federal agency.

(15) Participating in training and information conferences on OCS-related issues sponsored by government, industry, environmental, academic or public interest groups, if such participation is directly related to carrying out a State's responsibilities under the OCS Lands Act.

(16) Dissemination of information on OCS activities to local governments and the public.

(b) Paragraph (a) of this section does not represent an exclusive list of State responsibilities under the OCS Lands Act. The Assistant Administrator may determine on a case-by-case basis whether other activities are eligible for funding under Section 308(c)(2).

### § 931.145 Limitations.

(a) States may use Section 308(c)(2) grants only to carry out their responsibilities under the OCS Lands Act.

(b) Section 308(c)(2) grants awarded to a coastal State may not exceed 80 percent of the actual cost of carrying out State responsibilities under the OCS Lands Act. The Assistant Administrator will establish the ratio of the Federal share to the State share each fiscal year before computing allotments. States and local governments may use in-kind contributions as the non-Federal matching share in accordance with Office of Management and Budget Circular A-102.

(c) States may not use OCS State participation grants to cover the costs of site-specific planning, construction, or acquisition projects provided for under other provisions of Section 308.

**§ 931.146 Allotment of available funds.**

(a) The Assistant Administrator will allot funds available under Section 308(c)(2) among coastal States as follows:

(1) *Minimum Share.* Each eligible coastal State will receive an equal minimum share. The purpose of the annual minimum share is to provide fiscal certainty by assuring each eligible State a minimum level of funding from fiscal year to fiscal year. The minimum share will be determined by the Assistant Administrator each fiscal year on the basis of the amount of funds available under Section 308(c)(2). The Assistant Administrator intends to maintain the minimum share at $75,000 when practicable.

(2) *Formula Share.* The funds remaining after the minimum shares are subtracted from the total amount available under Section 308(c)(2) will be allotted among eligible coastal States according to a formula designed to reflect, to the maximum extent practicable, a State's responsibilities under the OCS Lands Act. This formula will be based on:

(i) The number of times a State is found by the Assistant Administrator *likely to be affected* by future OCS lease sales scheduled by the Department of the Interior under the Five-Year OCS Planning Schedule;

(ii) The length of the marine coastline;

(iii) The coastal population along the marine coastline; and

(iv) The number of OCS acres leased since December 1, 1975, with respect to which the Assistant Administrator determines a State is *likely to be affected.*

(b) The Assistant Administrator may adjust the formula to account for regional differences in costs.

(c) Because of the uncertainty of lease sale schedules, exploration and production timetables, and the difficulty in quantifying precisely State OCS responsibilities, the exact allotment formula is not codified in the regulations. However, the factors on which the formula will be based are specified in the regulations. The Assistant Administrator retains the discretion to modify the allotment formula within constraints imposed by this section, before computing the yearly allotment. The formula used by the Assistant Administrator will be submitted to the State for review and comment before final allotments are calculated.

**§ 931.147 Available funds.**

Funds available in a fiscal year for allotment under Section 308(c)(2) may consist of:

(a) Funds appropriated under Section 308(c)(2);

(b) Funds reverting to the Assistant Administrator under § 931.150 because they were not applied for within the designated 120-day time period;

(c) Funds awarded in previous years under Section 308(c)(2) that are recovered under § 931.97 of Subpart I because such funds were not expended or were expended for unauthorized uses; and

(d) Funds from any other sources that may be used in that fiscal year for Section 308(c)(2) purposes.

**§ 931.148 Allotment procedures.**

(a) *State Review.* As soon as practicable after the beginning of each fiscal year, the Assistant Administrator will provide each eligible State with the formula that will be used to allot Section 308(c)(2) grants for that fiscal year. States will have 30 days to submit comments on this formula to the Assistant Administrator.

(b) *Final Allotment.* Final allotments will be calculated as soon as practicable after the end of the 30-day review period described in (a) above.

**§ 931.149 Application for OCS State participation grants.**

(a) Applications for OCS State participation grants must be submitted to the Assistant Administrator within 120 days after the State is notified of its final allotment. Applications may be obtained from and submitted to:

The Office of Coastal Zone Management, 3300 Whitehaven Street NW., Washington, D.C. 20235, Attn: Grants and Loans Operations Staff.

(b) The Assistant Administrator intends to make grant awards within 45 days of receipt of a completed application.

(c) Applications for assistance under Section 308(c)(2) must contain the following information:

(1) A clear and brief description of the activities that will be carried out including the associated costs by object classification.

(2) A statement whether OCS participation funds will be allocated among units of local government. If the State intends to subgrant funds to local governments the application must contain:

(i) The name of the local government(s) that will receive OCS participation assistance and a clear and brief description of the activities that will be carried out including associated costs by object classification; and

(ii) An explanation of how, to the maximum extent practicable, these funds were allocated on the basis of need for OCS participation. However, there is no requirement that the State allocate these funds among units of local government pursuant to the intrastate allocation process under Subpart J.

**§ 931.150 Reversion of allotted funds.**

Funds allotted under this Subpart for which applications are not received within 120 days of the date a State is notified of its final allotment will revert to the Assistant Administrator at the end of that period.

**§ 931.151 Disposition of reverted or recovered funds.**

At the discretion of the Assistant Administrator, funds reverting under § 931.150 or recovered under § 931.97 may be awarded to States with a demonstrated need for additional OCS participation funds or may be reallotted as soon as practicable among all eligible coastal States.

**§ 931.152 Administrative requirements.**

All awards and expenditures of funds under this Subpart are subject to the applicable requirements of Subpart I.

[FR Doc. 80-1643 Filed 1-18-80; 8:45 am]
BILLING CODE 3510-22-M

Monday
January 21, 1980

Part V

# Department of Transportation

## Federal Aviation Administration

## Metropolitan Washington Airports; Proposed Policy

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

### 14 CFR Parts 93 and 159

**[Docket No. 19948; Notice No. 80-2]**

### Metropolitan Washington Airports

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The FAA proposes to adopt rules to implement the DOT/FAA policy to guide the future operation and development of Washington National and Dulles International Airports and to improve the quality of the environment in the areas around National. That proposed policy is published elsewhere in this Federal Register. If adopted, the policy would necessitate amendments to existing Federal Aviation Regulations which allocate scheduled operations amongst the operators of aircraft at National Airport. In addition, the policy contemplates modification by rule making the existing practices relating to hours of operation, scheduling hours, nonstop service and aircraft equipment restrictions at National. The FAA is proposing rulemaking to assure public participation in the development of the policy, a clearer understanding and better acceptance of airport policies in the community and the aviation industry, and to assure better compliance by airport users. FAA proposes to modify Part 93 of the Federal Aviation Regulations to change the hourly allocation of operations at Washington National from the present 40 per hour for air carriers, 8 for commuter air carriers and 12 for general aviation, to 36 per hour for the air carriers, and either 12 for commuters and 12 for general aviation, or 15 for commuters and 9 for general aviation. The total hourly allocations would remain 60. FAA is also proposing to define the users of the slots by the seat size of the aircraft to promote efficient use of those slots and to assure that smaller aircraft do not use slots that are allocated to the users of large transport aircraft.

Also, FAA proposes to adjust the hours of operation of Washington National Airport. The certificated and commuter air carriers will not be permitted to schedule operations after 9:30 p.m. It is proposed that a curfew be established which will close the airport to all traffic, except in emergencies, after 10:30 p.m. and before 7:00 a.m. These measures will reduce potential certificated air carrier operations at National by 118, an 18.6 percent reduction. FAA also proposes to allow two and three engine wide-body aircraft to use National Airport subject to a determination by the airport management that the operation is compatible with airport facilities. In addition, consideration is being given to formally adopting a perimeter rule which limits the distance of nonstop flights to and from National Airport. FAA proposes that either the existing informal 650-mile perimeter with continuing exceptions for seven cities beyond 650 miles be maintained, or that the perimeter be defined as 1,000 miles, which is approximately the distance to the furthest city now permitted nonstop service under the exceptions to the current practice. This would eliminate the arguably discriminatory treatment of closer-in cities. National Airport's role as that of a "medium" and "short haul" airport would be maintained in either case.

**DATE:** Comments must be received by April 15, 1980.

**ADDRESS:** Send comments to Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket, AGC-24, 800 Independence Avenue, S.W., Washington, D.C. 20591.

**FOR FURTHER INFORMATION CONTACT:** Charles C. Erhard, Metropolitan Washington Airports, Washington National Airport, Hangar 9, Washington, D.C. 20001, telephone: (202) 557-0972.

**SUPPLEMENTARY INFORMATION:**

#### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written comments, data, views, or arguments as they may desire. Communications should identify the regulatory docket or notice number and be submitted in duplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket, AGC-24, 800 Independence Avenue, S.W., Washington, D.C. 20591. All communications received on or before April 15, 1980, will be considered by the Administrator before taking action on the proposed rule. The proposals contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each substantive public contact with DOT personnel concerned with this rulemaking will be filed in the docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 19948." The postcard will be date/time stamped and returned to the commenter.

#### Availability of NPRM

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Avenue, S.W., Washington, D.C. 20591, or by calling (202) 426-8058. Communications must identify the notice number of the NPRM. Persons interested in being placed on a mailing list future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedure.

#### *Metropolitan Washington Airports Policy*

The Administrator of the Federal Aviation Administration (FAA) has issued for public review and comment a comprehensive statement of policy which, if adopted, would guide the FAA operation of the Metropolitan Washington Airports—Dulles International and Washington National Airports. The airports are owned by the United States. The Notice of Proposed Policy appears in this Federal Register. Certain aspects of the proposed policy, if adopted, will necessitate amendments to existing Federal Aviation Regulations which allocate scheduled operations amongst the operators of aircraft at National Airport. Other elements of the policy, if implemented, will result in modifications to existing practices relating to the hours of operation, hours of scheduling, nonstop service and permissible aircraft types. The existing practices are the products of less formal understandings between the FAA and users of the airport. FAA believes that the understanding between the airport proprietor and airport users on basic policy should be clear and, where appropriate, formally adopted as a regulation. The degree of voluntary compliance with current policies at National Airport has been very high. Nevertheless, to assure public participation, to promote a clearer understanding and better acceptance of airport policies in the community as well as amongst the operators of aircraft, and to better assure compliance with the new policies, if adopted, FAA is proposing to adopt new regulations, and modify existing regulations, relating to Metropolitan Washington Airports.

*Number of Operations*

FAA proposes to amend the Federal Aviation Regulation that allocates the number of scheduled operations per hour by class of user. Since April 27, 1969, Washington National Airport has been operated under a special air traffic rule known as the "High Density" rule [14 CFR 93.121 et. seq.]. The rule was adopted in response to serious airspace and airport congestion. It was intended to provide relief from excessive delays at certain major terminals including Washington National. The rule allocated 60 operations per hour under instrument flight rule (IFR) conditions at National Airport. It further allocated the 60 slots by class of user as follows: Air carrier except air taxis—40; scheduled air taxis—eight, and "Other," (general aviation)—12. The allocations to National Airport have never been modified.

The regulations permit operators to obtain additional IFR or VFR (visual flight rule) reservations without regard to the number of operations allocated if a reservation can be obtained from air traffic control. Reservations are granted by air traffic control if the aircraft may be accommodated without significant additional delay to the operations allocated for the airport. FAA procedures permit these additional reservations to be obtained not more than 48 hours in advance of the proposed operation. As a practical matter, general aviation is the only class of user that can use this additional reservation procedure because it does not operate on an advance schedule basis.

The rule grants greater priority to certificated air carriers, who provide common carriage service, in accordance with the policy of recognizing the national interest in maintaining a public mass air transportation system. FAA observed when the rule was adopted that for modern travelers there is frequently no feasible alternative mode of travel and when airspace and airport capacity limitations compel a choice by the FAA between classes of airport users, the public service offered by the common carrier, both certificated and commuter, must be preferred. These observations remain true today. It has been the intention of the FAA since the rule was promulgated to make revisions to it as required.

FAA proposes to modify the hourly allocations at National. The agency is considering alternate allocations as follows:

Alternative A

Air carrier except "air taxis", 36
Scheduled air taxis, 12
Other, 12

Alternative B:

Air carriers except air taxis, 36
Scheduled air taxis, 15
Other, 9

The total allocation of hourly IFR Operations will remain at 60.

This action is prompted, primarily, by two considerations basic to the proposed operating policy for the Metropolitan Washington Airports. First is the need to manage the growth of the two Federally owned airports so that they best serve the Washington metropolitan community, both its air travelers and its residents. National Airport is currently serving 67 percent of Metropolitan Washington air passengers despite the available capacity and modern facilities at Dulles International and Baltimore-Washington International Airports. Between Dulles and National, National serves 81 percent of the passengers, 79 percent of the air carrier operations and 67 percent of the total operations. Furthermore, despite its generally outmoded condition, National continues to grow. It served 14 million passengers in 1978 and approximately 15 million in 1979. At the present rate of growth, National is forecast to be serving nearly 20 million passengers in 1985, which would constitute 60% of the three airport market and 74 percent of the National-Dulles market.

The continued high growth rate at National leads the FAA to propose immediate measures to control the rate and to assure that a limit is placed on the growth of National Airport. The FAA believes that this will lead to better use of the region's other airports. A limit on growth will permit orderly planning and redevelopment of National's aging facility to serve a fixed number of travelers. Also, a limit is most compatible with the need to improve the environmental quality in the communities surrounding National.

A reduction of air carrier operations at National Airport appears to be the best way to achieve this managed growth objective. The reduction of four scheduled operations per hour will eliminate 64 potential operations based on the present operating hours. As part of this same rulemaking, FAA is proposing to reduce the number of hours of scheduled operations. The total reduction from potential air carrier operating slots would be 118 out of 640 per day, an 18.6 percent reduction. Even with this proposed measure, national will grow to reach the proposed 18 million annual passenger cap by 1985. But, in 1985, with the cap on growth, National will be serving nearly two million fewer passengers than it is forecast to serve if the policy is not adopted. Also, it will have been reduced percentage wise from 67 to 54 percent of the regional market. With the cap on growth, the airport's percent of the passenger market will continue to decline as Dulles and BWI grow. In a separate rulemaking, FAA will propose, in February, mechanisms for further slot reallocations to maintain the limit on growth at national. At the same time, the FAA will address the treatment of extra sections. Under present rules, carriers are permitted to operate unscheduled extra sections with a single slot. For example, in the past, the New York "shuttle" service often included four or more extra sections, particularly in the evening hours.

The second policy consideration prompting the reduction in air carrier slots is the need to provide more slots for the commuter air carriers. Under the existing rule, commuters are allocated eight scheduled operations per hour. At present, there are only eight commuter operators at National Airport. There is a list of 13 operators waiting to acquire operating slots. The turnover of commuter slots has been static for several years. Increased commuter activity has been possible only by those commuters able to obtain certificates of convenience and necessity from the Civil Aeronautics Board for their Washington operations thereby allowing them to participate in the allocation of slots for the certificated air carriers. Thus, recent increases in commuter operations have been with certificated air carriers slots, not with commuter slots. Some of these air carrier slots are, therefore, being used for the operation of comparatively small aircraft with less than 30 seats, and often only 19 or 15.

The reallocation of slots to permit more operations of commuter aircraft in lieu of the larger turbojet aircraft should result in a noise benefit to the community. By and large, the commuter aircraft are substantially quieter than the aircraft operated by the certificated carriers. Also, an increase in the commuter allocation will be in furtherance of the policy of the Airline Deregulation Act to promote the continued strengthening of commuter air carriers so as to assure a more effective, competitive airline industry. Consistent with the Airline Deregulation Act, some certificated air carriers have discontinued service to markets that are not in their interest to serve. Meanwhile, commuter air carriers that are available for replacement service to these communities have been unable to obtain slots at Washington National. The transfer of four scheduled operating positions per hour from the certificated

air carriers to the commuters (Alternative A) should help achieve the goal of improving commuter service as well as enabling controlled growth at the airport.

Additionally, the increase in commuter slots should improve service to smaller cities and communities that have experienced a reduction or loss of service as the larger carriers have concentrated their operations on larger markets. Cities in West Virginia, Virginia, North and South Carolinas and other nearby states have expressed an interest in improved service to Washington and some have experienced a reduction in certificated carrier service. Commuter air carriers should be able to replace the lost or reduced service, and may even be able to stimulate new service to more communities that have not had direct air carrier access to Washington.

More than four additional hourly slots may be needed for the commuter operators. Therefore, FAA is also proposing for consideration the alternative of allocating seven additional slots to the commuter air carriers. The slots will be reallocated as follows: Four will be deducted from the allocation to certificated carriers and three will be deducted from the general aviation allocation (Alternative B). Under the present regulatory scheme, slots that are not used by either the certificated or commuter air carriers revert to general aviation. This practice will continue. Additionally, under the existing regulations operations are allowed at National over and above the hourly allocation if air traffic control can accommodate the operation without significant additional delay to the operations for which slots have been obtained. Because general aviation does not operate on a schedule, it can, and does, utilize this provision. FAA is not proposing to change the regulation in this regard. Experience has shown that, while operating within the rules, total general aviation operations regularly exceed the hourly allocation of 12. During the month of September, which represents the mean for monthly operations at National Airport in 1979, the number of general aviation operations exceeded 12 during 225 of the 320 weekday hours (20 days × 16 hours) subject to allocation, i.e., 70 percent of the time. In certain hours of the day, for example, the three hours from 2 p.m. to 5 p.m., there were more than 12 operations every weekday in the month of September, and in many other hours the allocation was exceeded on at least 15 days. The number of hourly general aviation operations was frequently twice the allocation, or more. Therefore, because unused carrier slots revert to general aviation and because, in any case, general aviation aircraft can often operate without a slot, the transfer of three slots from general aviation to the commuter air carriers is believed to be the best means of providing the additional commuter capacity.

The Department of Transportation believes that providing up to 15 slots per hour to the commuter air carriers is warranted as an efficient utilization of a scarce operating resource that is also consistent with other objectives of the Government. There is a waiting list of commuter carriers seeking to operate at National Airport. The commuters currently operating there are seeking additional operating times. There are also four operators of aircraft with less than 56 seats that are currently using air carrier certificated slots (approximately 20) which under this proposal will have to use commuter slots. There appears, therefore, to be sufficient demand for the 102 daily additional slots (7 for each of 14½ hours of operation) that this proposal would create for commuters.

The reallocation of operating slots is proposed here in the alternative and commenters are asked to address themselves to whether the needs of the commuter air carriers and the service they represent should be met by an infusion of four or seven additional slots per hour.

Finally, to promote the most efficient utilization of both the air carrier and commuter slots at Washington National, FAA is proposing to require that operations with aircraft having a seating capacity of less than 56 seats be conducted from the commuter air carrier or "air taxi" slot allocation, even if the carrier is certificated. Commuter air carriers that have acquired a certificate of public convenience and necessity from the Civil Aeronautics Board are presently permitted to participate in the allocation of certificated air carrier scheduling slots and to use those slots to operate aircraft with a limited seating capacity. Many of the newly certificated carriers continue to use the same aircraft they utilized before certification. Only the status of the operator has changed. As a result, 15 and 19 seat aircraft are being operated in slots that, heretofore, have been used almost exclusively by the larger capacity turbojet aircraft.

The Department of Transportation is of the opinion that the most efficient use of the slots allocated to "air carriers except air taxis," is to reserve them for larger capacity aircraft. For the same reasons of efficiency, operations of aircraft with fewer than 56 seats at Washington National should be operated in the "air taxi" slots. The "less than 56 seat" definition for commuter aircraft is as defined by Congress in Section 32 of the Airline Deregulation Act of 1978 [49 U.S.C. 1386(b)]. The requirement that "air taxi" slots be used for air carrier aircraft with a seating capacity of less than 56, and that certificated air carrier slots be used for all air carrier aircraft with 56 seats or more, will apply to all carriers, whether or not certificated.

The DOT recognizes that the impact of the growth in the commuter air carrier industry does not rest uniquely on Washington National Airport. While the proposal to require operators to use commuter slots for operations of aircraft with less than 56 seats applies only to Washington National, FAA will continue to monitor the situation at the other "high density" airports for which hourly operations are allocated by class of user under § 93.123.

*Hours of Operation*

FAA proposes to amend the Federal Aviation Regulations to limit the hours that National Airport is open and to further limit the hours in which the certificated and commuter air carriers can schedule operations. Carriers would be permitted to schedule operations between 7:00 a.m. and 9:30 p.m. The allocation to each class of user, between 9:00 and 9:30 p.m., will be up to half its normal hourly allocation. (If half of the hourly allocation is a fraction, then the next higher whole number may be scheduled.) The reduction in scheduling hours will eliminate 60 nighttime air carrier operating slots. When combined with the reduction in the air carrier hourly allocation of slots as discussed above, there will be a reduction of 118 air carrier operating slots. This measure will aid the FAA in controlling the growth of National Airport. It will also correct the practice which has permitted the air carriers to schedule as many as 20 operations and potentially schedule as many as 40, their entire hourly allocation, precisely at 10:00 p.m. The current scheduling limitation is not a legal prohibition on operations occurring after 10:00 p.m. if they are scheduled to occur at or before 10:00 p.m. Due to the bunching of operations at 10:00 p.m., late flights regularly occur. These late night operations impose a noise burden on the community. The prohibition on scheduling after 9:30 and the prohibition on scheduling more than half the hourly allocation of slots between 9:00 and 9:30 will eliminate the bunching of turbojet operations and help assure that scheduled operations are completed

before the late night hours. Delayed arrivals or departures that are scheduled before 9:30 will be permitted to occur until 10:30 p.m.

The proposed curfew will prohibit all but emergency operations after 10:30 p.m. and before 7:00 a.m. It will affect approximately five percent of the current daily operations at National. The operations are conducted primarily by general aviation with some occasional commuter and air carrier propeller aircraft activity. Most late operations occur between 10:30 p.m. and midnight or between 6:00 and 7:00 a.m. and it is expected that these operations can be accommodated during authorized operating hours at National or at Dulles Airport and BWI.

FAA recognizes that an inconvenience may be caused to certain travelers who seek transportation to or from Washington in the evening, to the Government official or businessman wishing to travel late at night on a general aviation aircraft, to nighttime air freight carriers, and to passengers on delayed incoming flights diverted to Dulles or to BWI. This latter occurrence should be very infrequent due to the proposal to prohibit air carriers from scheduleing operations after 9:30 p.m. FAA believes that this inconvenience can be minimized by careful planning and by greater utilization of Dulles and BWI.

As stated in the Notice of Proposed Policy, the Washington area is served by three major airports, two of which are operated by the FAA. The FAA is in a position to assure that its facilities provide access to Washington to all aeronautical uses. Dulles Airport, the FAA can assure, will remain open to all users without undue restrictions. The availability of this alternative capacity, and the benefits to the community, lead the FAA to conclude that the curfew is warranted.

The proposed rule recognizes emergency operations as an exception to the curfew.

*Wide-Body Aircraft*

It is proposed to amend Part 159 of the Federal Aviation Regulations to specify that four engine turbojet transport category aircraft are not permitted to operate at Washington National and that two and three engine wide-body transport catetory aircraft are to be permitted only if the airport management determines that the operation would be compatible with the airport facility. This proposal would modify existing policy which has been to restrict the carriers to using two and three engine narrow body aircraft at National Airport.

Some Washington markets should be better served by the use of higher capacity aircraft. Potential markets for such aircraft service include New York, Chicago, Atlanta, Boston, and Miami. This measure should also assist the air carriers in the management of their fleet, which operates over a system of points, if Washington National, which is but one point in the system, does not unnecessarily restrict equipment usage. The newer technology aircraft are subject to progressive noise standards and their use at National is expected to result in an improvement in environmental impact when compared to the impact of continuing to operate a fleet of 100% narrow-body aircraft. With the proposed 18 million annual passenger cap, the use of wide-body aircraft with high capacity will tend to reduce further the overall number of slots available to the carriers.

Although no longer excluded as a matter of policy, it is recognized that high capacity wide-body aircraft may severely strain the ground-side capabilities of National Airport. At National, these aircraft would carry between 200–275 persons. It may not be in the best interests of air travelers to permit wide-body aircraft to operate at National where the aircraft parking apron or the terminal areas may be significantly impacted. Therefore, until facility improvements are made at National, FAA proposes to permit two and three engine aircraft not regularly operating at National on the issuance date of this notice to operate at the Airport, but only after the air carrier proposing the operation has submitted an acceptable operating plan to the Director of Metropolitan Washington Airports. That plan must describe the type of aircraft, the schedule, the gate position to be used, and other information about the operation. Wide-body aircraft operation may be disallowed by the Director on a non-discriminatory basis if he determines that the proposed operation is incompatible with the airport facilities.

Although current generation four engine transport category aircraft will continue to be excluded from National, FAA recognizes the emerging technolgy that may produce four engine jet transports that are compatible, from an operational and environmental standpoint, with the role of National Airport. At that time FAA will consider permitting those aircraft to be operated at National. Of course, Dulles Airport remains available to all types of aircraft without restriction, as does BWI.

*Nonstop Service Restrictions*

By agreement with the carriers, in 1966, nonstop flights to and from National were limited to a radius of 650 miles. Seven cities beyond 650 miles were excepted because they had existing nonstop service with propeller aircraft and are still provided nonstop service under the agreement. These cities are Minneapolis, St. Louis, Memphis, Tampa, Orlando, West Palm Beach and Miami.

The FAA believes that for the time being a perimeter restriction is necessary to preserve National Airport's "medium" and "short haul" and local service role and keep it distinct from the "long haul" and international role of Dulles Airport. FAA views the perimeter restriction on National as an important element to an effective managed growth policy at National.

Its elimination could intensify, rather than diminish, the use of National for long-haul service between high density markets because the longer stage lengths tend to be more attractive to the carriers. More of National's operating slots would be devoted to long-haul operations and service to closer-in markets could be detrimentally affected. Also, elimination of the perimeter to allow nonstop service to western and west coast cities from National could result in a shift of a very significant number of operations away from Dulles and BWI. For example, nonstop service to western cities such as Dallas, Houston, Austin, Denver, Tulsa and Phoenix constitute nearly 40 percent of the daily domestic flights currently operating at Dulles. A shift of all or a significant portion of these operations to National would negatively impact upon service from Dulles Airport. Thus, eliminating the perimeter would be directly contrary to the objective of making better use of Dulles' and BWI's capacity as well as contrary to the objective of managing the growth at National.

However, under the existing practice nonstop service is denied to cities beyond 650 miles even though they are not as distant as the furthest "grandfather" city, Minneapolis, which is approximately 1000 miles distant. The practice has been questioned by some as to whether it is discriminatory. Adoption of a 1000 mile rule would eliminate this question because the rule would treat cities of equal distance equally, with regard to access to National Airport. Cities beyond 1000 miles would continue to have nonstop access to Washington via Dulles or BWI.

Adoption of the 1000 mile alternative would permit nonstop service to such

cities as Birmingham, Alabama, Ft. Lauderdale, Florida, New Orleans, Louisiana, and Kansas City, Missouri and other cities. The new nonstop service would still have to be accommodated within the quota system; it would not increase the number of flights at National. In addition, it is not believed that the origin and destination points of the aircraft materially affect the environment around National Airport provided that these points are not long-haul segments. Therefore, FAA believes the 1000-mile perimeter would improve access to the Nation's Capitol without placing any appreciable further environmental burden on the surrounding community. However, maintenance of the existing 650 mile perimeter and seven exceptions is proposed here along with the alternative of 1,000 miles.

FAA is committed to maintaining National Airport as a "medium" and "short-haul" airport. However, the FAA will continue to monitor the effects of any perimeter and will consider changes to the rule to maintain reasonable use of the two Federally owned airports and to have them serve the Washington area and provide the air carriers access to the area without unreasonable and unjust restrictions.

*Effective Date*

FAA expects that it will need several months after the close of the comment period to reflect upon, and react to, the comments received. Final rules may be issued on or about August 15, 1980. Also, by that date FAA will issue a final environmental impact statement on the operation of the airports and the policy alternatives. Under the proposal, the final rule would not become effective until January 1, 1981. A period between adoption and the effective date of the rules is necessary to allow for the orderly allocation of slots to the individual carriers. This will be accomplished through the method that is adopted by the FAA after a future notice and comment period. The lead time is also necessary in order to permit the carriers to make the schedule modifications that would be made necessary by these rules.

*Further National Airport Actions*

In February, the FAA will issue a Notice of Proposed Rulemaking on methods of allocating slots among the carriers at Washington National Airport and which could be used at other high density airports, where operations are allocated on an hourly basis. Alternative methods of allocating slots amongst the carriers will be offered for public comment.

*The Proposed Amendments*

In consideration of the above, the Federal Aviation Administration proposes to amend Subpart K of Part 93 of the Federal Aviation Regulations (14 CFR Part 93) and Subpart C of Part 159 of the Federal Aviation Regulations (14 CFR 159) as follows:

**§ 93.123 [Amended]**

1. Alternative A: By amending paragraph (a) of § 93.123 in the chart entitled "IFR OPERATIONS PER HOUR," by deleting the numbers "40," "8," "12" in the vertical column beneath the words "Washington National Airport" and by substituting for them the following numbers: "36," "12," and "12."

Alternative B: By amending paragraph (a) of § 93.123 in the chart entitled "IFR OPERATIONS PER HOUR" by deleting the numbers "40," "8," "12" in the vertical column beneath the words "Washington National Airport" and by substituting for them the following numbers: "36," "15," "9."

2. By amending paragraph (b)(3) of § 93.123 by deleting the number "40" wherever it appears and by substituting for it the number "36."

3. By adding new paragraph (c) to § 93.123 to read as follows: (c) For operations at Washington National Airport, after December 31, 1980—(1) The term "air carrier except air taxis," as used in this section, is defined as operations conducted by air carriers with aircraft having a maximum passenger seating capacity of 56 or more.

(2) The term "scheduled air taxis," as used in this section, is defined as operations conducted by air taxis, or air carriers, with aircraft having a maximum passenger capacity of less than 56.

4. By adding to Part 159 new § 159.40 as follows:

**§ 159.40 Hours of operation.**

(a) After December 31, 1980, except in an emergency, no person may operate an aircraft at Washington National Airport after 10:30 p.m. and before 7:00 a.m.

(b) After December 31, 1980, no certificated air carrier or scheduled air taxi shall schedule an aircraft operation to occur at Washington National Airport after 9:30 p.m. and before 7:00 a.m.

(c) After December 31, 1980, from 9:00 to 9:30 p.m. at Washington National Airport, the total number of scheduled operations for certificated air carriers and scheduled air taxis shall not exceed one half the IFR operations per hour allocated to each of those classes of user under § 93.123 for Washington National Airport. If one half the allocated operations is a fraction, the next higher whole number may be scheduled.

**§ 159.59 [Amended]**

5. By amending § 159.59 by redesignating paragraphs "(a)," "(b)" and "(c)" as "(c)" and "(d)" and "(e)" and by adding new paragraphs (a) and (b) as follows:

(a) Except in an emergency, no person may operate a four engine turbojet transport category aircraft at Washington National Airport.

(b) After December 31, 1980, no person may operate at Washington National Airport, an aircraft of a type not regularly operated at that airport as of January 15, 1980, except as authorized by the Director of Metropolitan Washington Airports. The Director may request the person proposing to operate aircraft of this type at Washington National to submit a plan describing how the aircraft operation will be compatible with the airport facilities, including a description of the aircraft type, the schedule, and the gate position proposed to be used. The Director shall base his authorization or denial solely on the compatibility of the operation with the National Airport facility.

6. Alternative A: By adding to Part 159 new § 159.60 as follows:

**§ 159.60 Nonstop operations.**

(a) After December 31, 1980, no person may operate an air carrier aircraft nonstop between Washington National Airport and any airport that is beyond 650 statute miles from Washington National Airport.

(b) Notwithstanding paragraph (a) of this section an aircraft may be operated nonstop between Washington National Airport and the airports serving the following cities:

(1) Memphis, Tennessee
(2) Miami, Florida
(3) Minneapolis-St. Paul, Minnesota
(4) Orlando, Florida
(5) St. Louis, Missouri
(6) Tampa, Florida
(7) West Palm Beach, Florida

Alternative B: By adding to Part 159 new § 159.60 as follows:

**§ 159.60 Nonstop operations.**

After December 31, 1980, no person may operate an air carrier aircraft nonstop between Washington National Airport and any airport that is more than 1,000 statute miles away from Washington National Airport.

Authority: Secs. 103, 307(a), (b) and (c), 313(a), of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1359); Sec. 2 of the Act for the Administration of Washington

National Airport, 54 Stat. 688; Sec. 4 of the Second Washington Airport Act, 64 Stat. 770; Sec. 6 of the Department of Transportation Act (49 U.S.C. 1655).

Note.—The FAA has determined that this document involves a proposed regulation which is significant under Executive Order 12044 as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A copy of the draft Regulatory Analysis prepared for this action is contained in the regulatory docket. A copy of it may be obtained by contacting the person identified above under the caption "FOR FURTHER INFORMATION CONTACT."

Issued in Washington, D.C., on January 15, 1980.

Langhorne Bond,

*Administrator.*

[FR Doc. 80-1834 Filed 1-16-80; 3:20 pm]

BILLING CODE 4910-13-M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

[Docket No. 19950]

### Metropolitan Washington Airports; Proposed Policy

**AGENCY:** Federal Aviation Administration, Department of Transportation.

**ACTION:** Notice of proposed policy.

**SUMMARY:** The U.S. Department of Transportation and the FAA propose to adopt a comprehensive policy that will guide the future operation and development of Washington National and Dulles International Airports and abate aircraft noise in the communities near National Airport. It is proposed that Dulles International Airport shall continue to serve all types of air transportation needs and that its facilities be improved and expanded as needed to fulfill that role. At National, FAA proposes that the future growth of aviation activity be controlled and that measures be taken to assure that no more than 18 million annual passengers use the airport in future years. FAA proposes to reduce hourly certificated air carrier scheduled operations at National from the present 40 to 36. This would immediately slow down the rate of growth in passenger activity at the airport and make available additional operating positions for commuter air carriers. A reduction in the number of operating slots reserved for general aviation from 12 to 9, with three additional slots to be made available to commuter air carriers is also under consideration.

FAA proposes to adjust the hours of operation of Washington National Airport. The certificated and commuter air carriers will not be permitted to schedule operations after 9:30 p.m. It is proposed that a curfew be established which will close the airport to all traffic, except in emergencies, after 10:30 p.m. and before 7:00 a.m. These measures will reduce potential certificated air carrier operations at National by 118, an 18.6 percent reduction. Also, it is proposed to allow two and three engine wide-body aircraft to use National Airport subject to a determination by the airport management that the operation is compatible with airport facilities. In addition, consideration is being given to formally adopting a perimeter rule which limits the distance of nonstop flights to and from National Airport. Either the existing informal 650-mile perimeter with continuing exceptions for seven cities beyond 650 miles will be maintained or the perimeter will be redefined as 1,000 miles, which is approximately the distance to the furthest city now permitted nonstop service under the exceptions to the current practice. Adoption of this latter proposal would eliminate the potentially discriminatory treatment of closer-in cities. National Airport's role as that of a "medium" and "short-haul" airport would be maintained in either case.

**DATE:** Comments must be received by April 15, 1980.

**ADDRESS:** Send comments to: Federal Aviation Administration, Office of the Chief Counsel, ATTN: Rules Docket, AGC-24, 800 Independence Avenue, S.W., Washington, D.C. 20591.

**FOR FURTHER INFORMATION CONTACT:** Charles C. Erhard, Metropolitan Washington Airports, Washington National Airport, Hangar 9, Washington, D.C. 20001, Telephone: (202) 557-0972.

### Background

The United States, acting through the Federal Aviation Administration (FAA) of the Department of Transportation (DOT), owns, operates and maintains the Metropolitan Washington Airports—Washington National and Dulles International, the two air carrier airports serving the Washington, D.C. area. Baltimore-Washington International Airport (BWI) also provides some service to metropolitan Washington, and is owned and operated by the State of Maryland acting through the Maryland Department of Transportation (MDOT).

For the past eight years, the U.S. Department of Transportation and the FAA have been seeking to establish an appropriate policy to guide the management and operation of Washington National and Dulles International Airports. Once a role for each airport, in meeting the Washington metropolitan area's air transportation needs, it clearly defined, it will be possible for the FAA to move ahead with long overdue improvements to the facilities at Washington National while continuing to make timely improvements to Dulles. An understanding of the role of each airport is necessary to assure that the investment in improvements is consistent with the area's needs. While the U.S. DOT does not establish policy for BWI, it recognizes that actions taken at National and Dulles Airports may influence operations at BWI. Therefore, BWI's role is being considered in the development of a policy for the federally owned airports. The respective roles of these three airports have been the subject of several studies by the U.S. DOT, the State of Maryland DOT and the Metropolitan Washington Council of Governments (COG).

In March 1978 the FAA issued a Notice of Proposed Policy [43 FR 12141, March 23, 1978]. At that time, FAA proposed that Dulles Airport would continue to provide all types of air service to the Washington area. At National it was proposed to maintain the current nonstop perimeter, to maintain air carrier activity at no more than 40 scheduled operations per hour, to end scheduled air carrier activity at 9:30 p.m. daily, to place nightime noise level restrictions on aircraft, to permit two and three engine wide-bodied aircraft to operate at Washington National Airport and to constrain the growth at National to no more than 16 million annual passengers in 1985 and 18 million in 1990. The FAA proposal was accompanied by a Draft Environmental Impact Statement. Following the proposal, FAA conducted several public hearings and solicited comments from the interested public. A large number of comments on the policy proposal were received from other Federal agencies, state and local and municipal agencies, organizations, individuals and Members of Congress. Officials of several cities currently served or seeking to receive air service to Washington via National Airport also commented on the proposal.

The Department of Transportation and the FAA have reflected upon each aspect of the policy proposal both in the light of the comments received and in light of the airports' experience after the enactment of the Airline Deregulation Act of 1978. The DOT believes that a revision to the proposed policy is appropriate:

- —To address more directly the nighttime operations at National Airport,
- —To address the allocation of available capacity at National among the classes of aircraft operators,
- —To address more specifically the means by which any limit on annual passenger activity at National will be achieved, and
- —To address the issue of whether the current practice of limiting the non-stop flights into and out of National Airport to 650 statute miles (with exception for seven cities) should be maintained or modified.

In addition, updated forecasts of aircraft usage and air passenger activity reflecting airline deregulation are now available.

After extensive review within FAA, and by the Office of the Secretary of Transportation, FAA is publishing the

proposed policy, as revised, in its entirety.

Comments Invited

Interested persons are invited to participate in the development of the proposed policy by submitting written comments, data, views or arguments upon any aspect of the proposed policy. Comments relating to all issues and policies discussed below are invited as well as comments on the environmental, energy or economic impact that might result from adoption of the proposed policy. Communications should identify the docket or notice number and be submitted in duplicate to: Federal Aviation Administration, Office of the Chief Counsel, ATTN: Rules Docket, AGC-24, 800 Independence Avenue, SW., Washington, D.C. 20591.

All communications received on or before April 15, 1980, will be considered by the Administrator before taking action on the proposed policy or associated rules. The proposal contained in this notice may be changed in light of the comments received.

Availability of Notice

Any person may obtain a copy of this notice of proposed policy by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Avenue, SW., Washington, D.C. 20591, or by calling (202) 426-8058. Communications must identify the notice number. Persons interested in being placed on a mailing list for future Notices should also request a copy of Advisory Circular No. 11-2 which describes the application procedure.

FAA intends to be responsive to the comments received, expects to complete this policy review, to issue a final environmental impact statement and to issue a final policy statement by August 15, 1980.

Environmental Impact Statement

A supplement to the FAA Draft Environmental Impact Statement issued in March 1978 has been prepared. The Statement contains FAA's assessment of the probable impact of the proposed policy and a comparison of the impacts from the principal alternatives. According to the draft impact statement, when compared to the present conditions and to the projected impacts of no policy change, implementation of the policy would significantly reduce the area around National Airport that is exposed to higher aircraft noise levels. Both day and nighttime noise levels would be reduced with the greatest reduction occurring at night. The areas surrounding Dulles and BWI would experience a slight increase in noise exposure compared to the existing condition and to the projected conditions if the proposed policy is not enacted. Air quality and other environmental impacts are also detailed in the impact statement. The Statement can be obtained from Charles Erhard, Environmental Officer, Metropolitan Washington Airports, Hangar 9, Washington, D.C. 20001. Also, the statement will be distributed to area public libraries.

Public Hearing

A public hearing on the proposed policy will be scheduled within 30 days and a notice issued.

Regulatory Actions

Certain aspects of the policy, if adopted, will necessitate amendments to existing Federal regulations. In particular, an amendment to the regulation that prescribes the limitation on the number of scheduled hourly operations at National Airport by class of user (air carrier, commuter air carrier, general aviation) will be necessary. FAA believes that other aspects of the proposed policy would best be implemented by Federal regulation, particularly where change to established practice is contemplated such as in the hours of airport operation, the aircraft type restrictions and the nonstop perimeter policy. Even if current practices are not changed, FAA believes that the compliance by airport user with current policies at the airports should be founded upon a more formal relationship. The degree of voluntary compliance with current policies at National Airport has been very high. Nevertheless, to assure public participation, to promote a clearer understanding and better acceptance of airport policies in the community at large as well as amongst the operators of aircraft, and to assure compliance with the new policies, if adopted, FAA has prepared a Notice of Proposed Rule Making to accompany the proposed policy. Interested parties are advised to direct their attention and their comments to these proposed rules as well as to the proposed policy. The Notice of Proposed Rule Making is published in this Federal Register.

Current Characteristics of the Metropolitan Washington Airports

1. *Washington National Airport.*— National Airport, located 4½ miles from downtown Washington, is currently the area's busiest airport. It handles approximately 67 percent of the total passenger activity in the region. More than 15 million air carrier passengers used National during the twelve-month period ending September 30, 1979. If the present growth rate continues, the Airport would handle nearly 20 million passengers in 1985. Airside capacity is approximately 60 aircraft operations (a takeoff or a landing) per hour under weather conditions requiring instrument flight rules. Forty of these have been allocated to air carrier operations, 12 to general aviation operations and eight to commuter air carrier operations. The hourly allocations of each of the three classes is fully utilized during most hours of the day. To reduce the effects of noise in the surrounding residential areas, air carrier operations with jet aircraft are not scheduled after 10 p.m. or before 7 a.m. General aviation has also joined in this effort to reduce nighttime noise. Present terminal facilities can serve approximately 3,500 passengers per hour. In many hours more passengers than this pass through the airport, but only with a noticeable increase in congestion and delay. Metro rail rapid transit service has facilitated the handling of passengers at the airport. It carries approximately 15 percent of National's passengers. Even with Metro service, the airports 4,200 space public parking lot is often filled, or nearly filled to capacity.

The main terminal building at National was constructed in the early 1940's and the north terminal building was added in 1958. Although some modernization has been completed by several air carriers, the aesthetics, the efficiency of passenger handling, the internal circulation systems, including the movement of passengers between the terminals and the Metro station, are in need of substantial improvements and modernization.

Sharp differences of opinion exist over what the role of National Airport should be. The differences are best illustrated by the two perspectives which, together, encompass most of the comments received on the 1978 proposal. The representatives of the residential areas affected by aircraft noise seek to minimize the impact of the airport on their community. They hold that, with two other air carrier airports serving the region, the heavy concentration of activity at National is unwarranted and an unnecessary burden on the affected communities. The other perspective is that of the airport user and the air transport industry which seeks to maintain and improve close-by air transportation service to the Metropolitan business center and to meet the ever-increasing demand for service between more

communities and the seat of the Federal Government. From this prespective, National Airport which is Federally owned and operated, performs a national as well as a local role. Further, the air transport industry holds that the quota on operations and the restrictions on wide-body aircraft at National Airport unduly constrain growth and that the use of wide-body aircraft would be environmentally beneficial to the community.

2. *Dulles International Airport.*— Dulles Airport was designed to handle jet transport category aircraft. The terminal building designed by Eero Saarinen is generally recognized as being among the most beautiful and efficient terminals in the country. The airport is 26 miles from downtown Washington. The principal access to the airport is the Dulles Access Highway, an "airport only" road with limited exceptions that is maintained by the FAA.

Airside capacity at Dulles is approximately 100 flights per hour under instrument flight rules. Current peak hour air carrier use is approximately 30 per hour and total peak hour operation is, on an average between 60 and 80 operations. Off-peak utilization is considerably lower. The terminal capacity of approximately 1,800 passengers per hour is not regularly exceeded except during the peak periods of activity. Passenger use of Dulles grew to approximately 3.5 million in fiscal year 1979.

**Role of the Airports**

Dulles was designed to provide all levels of airline service to the Washington metropolitan area. It currently serves domestic and international long-haul markets. It is a port-of-entry with a modern international arrival and inspection facility. National is considered the area's medium and short-haul airport. In 1966, by an understanding with the air carriers, nonstop flights from National were restricted to a radius of no more than 650 miles with seven cities (Minneapolis, St. Louis, Memphis, Tampa, Orlando, West Palm Beach and Miami) excluded from the restriction. These cities had nonstop service with propeller aircraft at the time the restriction was established in 1966 and are provided nonstop service today under a "grandfather" arrangement.

Significant technical regulatory and social changes have occurred in recent years that have affected the air transportation industry and which make necessary a review of the roles established for the airports. These changes include, among other things:

1. Community concern over the environmental impact of flight operations over residential areas near National and Dulles Airports;

2. The possibility that air carriers could more efficiently serve Washington National with wide-body aircraft which are also environmentally preferable to the older aircraft in use at National;

3. The increased demand of smaller communities within 650 miles for service to Washington, and the emergence of commuter air carriers to service these points; and

4. The increased demand of communities beyond 650 miles for service to National Airport.

**Policy Objectives**

The Department of Transportation's effort to develop a policy has been undertaken with the following objectives:

1. To rationalize the role and use of the two Federally owned airports from an overall transportation viewpoint and to coordinate their use while assuring that, through these facilities, the Washington area can accommodate all aeronautical services.

2. To encourage an adjustment in the distribution of activity amongst the region's airports, an adjustment which would begin immediately and which, over time, would reduce National Airport's share of the annual passenger market significantly below its current 67% to achieve better utilization of existing and planned airport capacity.

3. To ensure that the growth, uses and roles of the airports are as compatible as possible with the competing demands and expectations of the community, both with respect to environmental quality and air transportation service.

4. To permit planning for and implementation of improvements at National Airport, but only those improvements that are consistent with its role.

5. To eliminate any unnecessary constraints on the use of aircraft at National Airport.

**Proposed Policy for Metropolitan Washington Airports**

The following policy is proposed to guide the management and operation of the Metropolitan Washington Airports:

1. Dulles Airport will continue to provide all types of air transportation service to the Washington area. Capacity will continue to be added as needed. The Dulles Access Highway will continue as an "Airport only" access facility with limited exceptions and the effort will be undertaken to promote and improve public transportation to the airport.

2. A program of managed growth will be undertaken at National. FAA will immediately commence the reduction in the rate of air passenger growth at National and establish a permanent limit on the number of passengers served annually at no more than 18 million. The immediate reduction in the rate of growth and maintenance of a permanent level of passenger activity will be accomplished by a reduction in a number of operating slots allocated to certificated air carriers at National.

*Discussion:* National Airport served approximately 15.1 million passengers in 1979. Based upon the most recent projections, if the current growth rate continues, 18 million will be reached by 1983. Under the proposed policy, Washington National would not reach 18 million passengers until calendar year 1985 at which time its share of the market will have been reduced from 67% of the region's activity today, to 54% of the projected passenger activity in 1985. Maintenance of the 18 million limitation will reduce National to 49% of the projected regional passenger activity in 1990.

The rate of growth at National and the absolute air passenger level will be evaluated by the FAA in keeping with this managed growth objective. The currently proposed reduction in air carrier slots will produce an immediate reduction in the rate of growth so that further reductions in operating slots should not be necessary until 1985 or whenever the airport is approaching the 18 million passenger level. However, FAA will propose, in February, a mechanism for further slot reallocations so that the 18 million annual passenger level will not be exceeded.

3. The total number of operating slots at National Airport will remain at 60 per hour. Certificated air carrier activity will be limited to no more than 36 scheduled operations (take-off or landing) per hour between 7:00 a.m. and 8:59 p.m., and no more than 18 scheduled operations between 9:00 p.m. and 9:30 p.m. Commuter air carrier operations will be increased from the present eight hourly operating slots. The increase is proposed to be either to 12 operations between 7:00 a.m. and 8:59 p.m., with six between 9:00 p.m. and 9:30 p.m., or 15 operations betwen 7:00 a.m. and 8:59 p.m., with eight between 9:00 p.m. and 9:30 p.m. It is proposed that, if the commuter slots are to be increased to 15, three operating slots will be deducted from the allocation to the general aviation class of user.

*Discussion:* The reduction in air carrier slots from the present 40 to 36 per hour will eliminate 64 air carrier operating slots per day at National

based on the present 16 hours of scheduled air carrier operation. This reduction, coupled with the proposed reduction in the number of scheduling hours to 14½, will slow the rate of growth of the number of passengers served at National. It is anticipated that no further reduction in air carrier slots will be necessary until the airport is approaching the 18 million passenger cap. The cap is expected to be reached by 1985.

The increase in slots for commuter air carriers is necessary to better assure service to smaller communities that are not adequately served by the certificated carriers. There is a considerable waiting list for commuter operating slots. The immediate infusion of four slots per hour, 58 per day, should significantly reduce the backlogged demand. But it is expected that even all of these slots will be insufficient to adequately provide for commuter air carrier demand at National. For this reason FAA is also considering the addition of seven more slots per hour to the commuter air carrier allocation to create a total allocation of 15 scheduled operations per hour.

FAA believes that the proposed slot reallocation is an appropriate means of managing growth at National while making slots available for air carrier service to small communities within several hundred miles of Washington.

Neither this proposed policy nor any of the proposed rules addresses the methods by which slots are allocated within a class. At present, distribution of certificated air carrier slots is made by a committee composed of representatives of each of the carriers that operate pursuant to an exemption from the antitrust laws granted by the Civil Aeronautics Board. The commuters have an organization, the Washington National Commuter Airline Association, which is currently administering the allocation of slots for commuter air carriers. The Civil Aeronautics Board has posed the possibility that the exemption from the antitrust laws currently enjoyed by such committees maybe ended. DOT expects to issue a separate Notice of Proposed Rule Making in February in which several alternative methods of allocation will be proposed for comment. It is expected that a final rule on slot allocation will be issued on or about the same date that the final rules on National Airport are issued.

4. The hours of operation of National Airport will be modified and the scheduling hours will be reduced. The certificated air carriers and the commuter air carriers will be permitted to schedule operations from 7:00 a.m. until 9:30 p.m. An absolute curfew will be imposed on operations at Washington National. The airport will be closed to all traffic after 10:30 p.m. and before 7:00 a.m., except for emergencies.

*Discussion:* The reduction in scheduling hours will eliminate approximately 60 nighttime air carrier aircraft operating slots. When combined with the hourly slot reductions, there will be a reduction of 118 air carrier operating slots. Currently, approximately 75 air carrier operations are scheduled in these 118 slots. The proposal, if adopted, would result in their immediate elimination and in the loss of the additional 43 air carrier slots that are currently not used. This measure will aid the FAA in controlling the growth at National. At present, scheduled operations occur from 7:00 a.m. to 10:30 p.m. and the carriers are permitted to schedule a full hour of operations, 40 operations, precisely at 10:00 p.m. Currently, approximately 20 operations are scheduled. The proposed measure, combined with the restriction on scheduling to half the hourly operations between 9:00 and 9:30 p.m., will help avoid the bunching or air carrier operations and will better assure that scheduled operations are completed before the late night hours. Delayed arrivals or departures that are scheduled before 9:30 will be permitted to be completed until 10:30 p.m.

The curfew on all operations after 10:30 p.m. and before 7:00 a.m. will affect approximately 5% of the current daily operations at National. It is expected that these can be accommodated during the authorized operating hours at National, or readily accommodated at Dulles or BWI. The Washington metropolitan area is fortunate to be served by three major airports, one of which, Dulles Airport, the United States can assure will remain open to all classes of aviation use without undue restrictions. In light of this assured capacity and in recognition of the need to provide relief from aircraft noise to the community, the curfew on all operations at National is proposed.

5. The policy constraint on the use of two- and three-engine wide-body aircraft at National will be removed.

*Discussion:* The prohibition on four-engine jet aircraft operations at National will continue. While, as a matter of policy, two- and three-engine wide-body aircraft will no longer be prohibited from using National Airport, until there is a redevelopment of the airport's facilities the final decision on their use by any particular operator will reside with the Director of Metropolitan Airports. That decision is to be made after an evaluation of the requesting air carrier's proposed operating plan and will be based upon the proposed operation's compatibility with the airport facility.

6. A nonstop service perimeter at National will be defined. A restriction on the nonstop stage length of flights will be retained to preserve National's "medium" and "short haul" status. FAA proposes that the restriction be either:

a. The existing 650-mile limit with the seven "grandfather" exemptions for cities that had nonstop service when the perimeter was instituted, or

b. A 1000-mile limitation.

*Discussion:* The retention of the perimeter is necessary to preserve National Airport's local service role and prevent it from becoming a nonstop "long haul" airport. However, under the existing definition nonstop service is denied to cities beyond 650 miles even though they may be nearer to Washington than the furthest 'grandfather' city, Minneapolis, which receives nonstop service and is approximately 1000 miles away. Redefinition of the perimeter to 1000 miles would treat cities of equal distance equally regard to access to National Airport. It would permit nonstop service between National Airport and such cities as Birmingham, Alabama, Ft. Lauderdale, Florida, New Orleans, Louisiana, and Kansas City, Missouri. Such service would have to be accommodated within the allocation of operations at the Airport. The number of lights at National would not increase.

(Secs. 103, 307(a), (b) and (c), 313(a), of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1359); sec. 2 of the Act for the Administration of Washington National Airport, 54 Stat. 688; sec. 4 of the Second Washington Airport Act, 64 Stat. 770; sec. 6 of the Department of Transportation Act (49 U.S.C. 1655).)

Issued in Washington, D.C. on January 15, 1980.

Langhorne Bond,

*Administrator.*

[FR Doc. 80-1833 Filed 1-16-80; 3:20 pm]

BILLING CODE 4910-13-M

Federal Register

Monday
January 21, 1980

Part VI

# Office of Management and Budget

## Office of Federal Procurement Policy

## Federal Participation In the Development and Use of Voluntary Standards; Final Issuance

## OFFICE OF MANAGEMENT AND BUDGET

### Office of Federal Procurement Policy

### Federal Participation in the Development and Use of Voluntary Standards; Final Issuance

**AGENCY:** Office of Management and Budget, Office of Federal Procurement Policy.

**ACTION:** Final Issuance of OMB Circular No. A–119.

**SUMMARY:** OMB Circular No. A–119 was approved and issued by the Director of OMB on January 17, 1980. Developed during the last three years, the Circular provides policy guidance to Executive Departments and Agencies in participating in the development of voluntary standards and in their subsequent use. Specifically, the Circular encourages Federal participation in, and support of, voluntary standards-developing activities when those activities are conducted in accordance with specified rules assuring due process. The Circular also encourages Federal use of adequate voluntary standards for procurement purposes. The Circular assigns to the Department of Commerce an administrative and coordinating role for executive branch implementation of those policies. the Circular is set forth below, in its entirety.

**FOR FURTHER INFORMATION CONTACT:** Mr. David F. Baker, Deputy Assistant Administrator for Logistics, telephone 202/395–7207.

James D. Currie,
*Acting Administrator.*

**[Circular No. A–119]**

*Federal Participation in the Development and Use of Voluntary Standards*

January 17, 1980.

1. *Purpose.* This Circular establishes policy to be followed by executive branch agencies in working with organizations which plan, develop, produce, and coordinate voluntary standards for materials, products, systems, services, processes, and practices. It also establishes policy to be followed by executive branch agencies in adopting and using such standards in procurement activities.

2. *Background.* The Federal Government performs many functions which involve the use of products and services that depend upon reliable standards. Many standards for such products and services, appropriate or adaptable for the Government's purposes, are developed and are available from certain private organizations, known as voluntary standards bodies. Federal participation in the standards-related activities of these voluntary bodies provides incentives and opportunities to establish standards that serve national needs. In addition, Federal use of voluntary standards, whenever practicable and appropriate, reduces the cost of developing and using standards and, thereby, serves the public interest. Federal adoption of such standards, moreover, is consistent with, and in furtherance of, the Federal Government's general policy of relying upon the private sector to supply Government needs for goods and services, as enunciated in OMB Circular No. A–76.

3. *Coverage.* This Circular applies to all executive branch agency participation in voluntary standards activities, both domestic and international, except as noted in paragraph 6, but does not apply to United States participation in multinational standards activities pursuant to treaties.

4. *Definitions.* As used in this Circular:

*a. Executive agency* (hereinafter referred to as "agency") means an executive department, independent commission, board, bureau, office, agency, Government-owned or controlled corporation or other establishment of the the Federal Government, including regulatory commission or board, and also the municipal government of the District of Columbia. It does not include the legislative or judicial branches of the Federal Government.

*b. Standard* means a prescribed set of rules, conditions, or requirements concerned with the definition of terms; classification of components; delineation of procedures; specification of materials, performance, design, or operations; or measurement of quality and quantity in describing materials, products, systems, services, or practices.

*c. Voluntary standards* are established generally by private sector bodies and are available for use by any person or organization, private or governmental. The term includes what are commonly referred to as "industry standards" as well as "consensus standards" but does not include professional standards of personal conduct, private standards of individual firms, or standards mandated by law, such as those contained in the United States Pharmacopeia and the National Formulary, as referenced in 21 U.S.C. 351.

*d. Government standards* include in-house and agency standards and specifications as well as Federal and Military standards and specifications.

*e. Voluntary standards bodies* are nongovernmental bodies which are broadly based, multi-member, domestic and multinational organizations including, for example, nonprofit organizations, industry association, and professional technical societies which develop, establish, or coordinate voluntary standards.

*f. Standards-developing groups* are committees, boards, or any other principal subdivisions of voluntary standards bodies, established by such bodies for the purpose of developing, revising, or reviewing standards and which are bound by the procedures of those bodies.

*g. Secretary* means the Secretary of Commerce or that Secretary's designee.

5. *Policy.* It is the general policy of the Federal Government to:

a. Rely on voluntary standards both domestic and international with respect to Federal procurement, whenever feasible and consistent with law and regulation pursuant to law;

b. Participate in voluntary standards bodies when such participation is in the public interest and is compatible with agencies' missions, authorities, priorities, and budget limitations. Such participation, however, is limited to those voluntary bodies that conduct their standards activities in accordance with the criteria listed in paragraph 6c, unless such participation is required by law; and

c. Coordinate agency participation in voluntary standards bodies so that (1) the most effective use is made of Federal agency representatives; and (2) the views expressed by such representatives are in the public interest and, as a minimum, do not conflict with the interests and established views of Federal agencies.

6. *Policy Guidelines.* In implementing the policy established by this Circular, agencies should recognize the positive contribution of standardization and related activities. When properly conducted, standardization can increase productivity and efficiency in industry, expand opportunities for international trade, conserve resources, and improve health and safety. It also must be recognized, however, that these activities, if improperly conducted, could suppress free and fair competition, impede innovation and technical progress, exclude safer and less expensive products, or otherwise adversely affect trade, commerce,

health, or safety. Full account shall be taken of the impact on the economy, applicable Federal laws, policies, and national objectives including, for example, laws and regulations relating to antitrust, national security, small business, product safety, environment, and conflicts of interest. In light of these considerations, the following policy guidelines are established to assist and govern implementation of the policy enunciated in paragraph 5, except that the provisions of paragraph 6c are not applicable to Federal participation in multinational organizations which develop and issue voluntary international standards. It should also be noted that the provisions of this Circular are not intended to create delay in the administrative process or provide new grounds for judicial review.

*a. Reliance on Voluntary Standards in Federal Procurement.*

(1) Voluntary standards that will serve the agencies' purposes and are consistent with applicable laws and regulations should be adopted, in whole or in part, and used by Federal agencies in the interests of greater economy and efficiency. While it is recognized that acceptable voluntary standards are more likely to result when developed in accordance with the due process and other basic criteria listed in paragraph 6.c, it is also recognized that suitable voluntary standards have resulted and will result from other developmental processes. Consequently, it would not be in the public interest for these guidelines to be interpreted as prohibiting the use of suitable voluntary standards merely because they were not developed in accordance with the criteria contained in paragraph 6.c. Federal agencies may, therefore, adopt and use such standards unless specifically prohibited by law from doing so. Voluntary standards will be given preference over in-house standards in the absence of mandatory Government standards unless use of such voluntary standards would result in impaired functional performance, unnecessary cost to the Government or the Nation, anticompetitive effects or other significant disadvantages. Agencies responsible for developing Government standards will periodically review their existing standards and cancel those for which an adequate and appropriate voluntary standard can be substituted.

(2) Voluntary standards which are adopted by Federal agencies will be cited, along with their dates of issuance and source of availability, in appropriate publications, regulatory orders, and related in-house documents.

(3) Agencies will not be inhibited, if within their statutory authorities, from developing and using in-house standards in the event that voluntary standards bodies cannot or do not develop a standard needed by, and acceptable to, these agencies or do not do so in a timely fashion. Nor shall the policies contained in this Circular be construed to commit any agency to the use of a voluntary standard which, after due consideration, is, in its opinion, inadequate, does not meet statutory criteria, or is otherwise inappropriate for the agency concerned.

*b. Participation in Voluntary Standards Bodies.*

(1) Participation by knowledgeable Federal employees in the standards activities of voluntary standards bodies and standards-developing groups should be actively encouraged and promoted by Federal agency officials when such participation is consistent with the provisions of paragraphs 5b and 6c.

(2) Federal employees who, at Government expense, participate in standards activities of voluntary standards bodies and standards-developing groups will do so as Federal agency representatives and, as such, must be authorized to participate by appropriate agency officials.

(3) Federal agency participation in voluntary standards bodies and standards-developing groups will not, of itself, connote agency agreement with, or endorsement of, decisions reached by such bodies and groups or of standards approved and published by voluntary standards bodies.

(4) For procurement applications in which Federal requirements are consistent with those of the private sector, participation by Federal agency representative should be aimed at contributing to the development of voluntary standards which will eliminate the necessity for in-house development of Federal standards for use in the procurement process.

(5) Federal agency representatives serving as members of standards-developing groups should participate actively in the standards activities of those groups but, in doing so, should not seek to dominate such groups. Active participation is intended to include full involvement in discussions and technical debates, registering of opinions and, if selected, serving as chairpersons or in other official capacities on such groups. Federal agency representatives may vote at each stage of standards development unless specifically prohibited from doing so by the head of the agency or that official's designee.

(6) The number of individual Federal agency participants in a given voluntary standards activity shall be kept to the minimum required for effective presentation of the various program, technical, or other concerns of Federal agencies.

(7) The granting of Federal support to a voluntary standards activity shall be limited to that which is clearly in furtherance of an agency's mission and responsibility. Normally, the total amount of Federal support given shall be no greater than that of all non-Federal participants in that activity except where it is in the direct and predominant interest of the Federal Government to develop a needed standard or revision thereto and such development appears unlikely to occur in the absence of such Federal support. The form of agency support, subject to legal and budetary authority, may extend to:

(a) Direct financial support; e.g., grants, sustaining memberships, and contracts;

(b) Administrative support; e.g., travel costs, hosting of meetings, and secretarial functions;

(c) Technical support; e.g., cooperative testing for standards evaluation and participation of agency personnel in the activities of standards-developing groups; and

(d) Joint planning with voluntary standards bodies to facilitate a coordinated effort in resolving priority standardization problems.

(8) Participation by Federal agency representatives in the policymaking process of voluntary standards bodies is encouraged—particularly in matters such as establishing priorities, developing procedures for preparing, reviewing, and approving standards, and creating standards-developing groups. In order to maintain the private, nongovernmental nature of such bodies, however, Federal agency representatives should refrain from decisionmaking involvement in the internal day-to-day management of such bodies (e.g., selection of salaried officers and employees, establishment of staff salaries).

*c. Identification of Voluntary Standards Bodies for Federal Participation.* As further described in paragraph 7a(2), the Secretary will prepare and maintain a list of voluntary standards bodies which wish to have Federal participation in their standards activities and which conduct their activities in accordance with the due process and other basic criteria contained in this paragraph. Voluntary standards bodies must be listed as a precondition to Federal participation

unless such participation is required by law. The due process and other basic criteria to be adhered to by listed voluntary standards bodies are as follows:

(1) That public notice of meetings and other standards activities is provided in an appropriate and timely fashion; and, to invite broadly-based representation, through media which are designed to reach those persons reasonably expected to have an interest in the subject. Interested persons may include, for example, consumers; small business concerns; manufacturers; labor; suppliers; distributors; industrial, institutional and other users; environmental and conservation groups; and State and local procurement and code officials. Such notices should include a clear and meaningful description of the purpose of the meeting or other proposed activity;

(2) That public notice is given in an appropriate and timely fashion of the initiation, final review, and adoption or approval of new and revised voluntary standards, and the proposed withdrawal of such standards, through media characterized in paragraph 6c(1). Such notice must clearly describe the purpose and scope of the relevant standards;

(3) That meetings are open and that participation in standards activities is available to interested persons. Unreasonable restrictions on membership in standards-developing groups by means of professional or technical qualifications, trade requirements, unreasonable fees, or other such restrictions must be avoided;

(4) That decisions reached by voluntary standards bodies in their standards activities represent substantial agreement, after a concerted effort to resolve objections, and that such agreements are reached by the participants in accordance with the published procedures of the voluntary standards body and the judgment of the official(s) duly appointed by the voluntary standards body. Such agreements imply more than a simple majority but not necessarily unanimity;

(5) That prompt consideration is given to the expressed views and concerns of all interested parties including proposals made for new or revised standards;

(6) That adequate and impartial mechanisms for handling substantive and procedural complaints and appeals are in force for use by interested parties;

(7) That appropriate records, sufficient to review and understand what transpired, are maintained of formal discussions, decisions, standards drafts, technical or other rationale for critical requirements of standards, complaints/appeals and their resolution, meeting minutes and balloting results; and that such records are retained in accordance with published procedures and are readily accessible to all interested persons on a timely and reasonable basis;

(8) That either a one-time written policy statement is maintained in the official procedures of the body or that standards literature published by the voluntary standards body specifically state that participation by Federal agency representatives in that body does not constitute Government endorsement of that body or the standards which it develops. A voluntary standard which includes a list of its developers and identifies Federal agency representation must include this disclaimer;

(9) That voluntary standards bodies publish their official procedures and make them available to interested parties on a reasonable basis;

(10) That voluntary standards are periodically reviewed and revised, as necessary, and that participation in the review process is granted to all interested persons;

(11) That preference is given to the use of performance criteria in standards development when such criteria may reasonably be used in lieu of design, materials, or construction criteria.

7. *Responsibilities.* a. The Secretary will:

(1) Coordinate and promote executive branch implementation of the policy in paragraph 5, in accordance with the policy guidelines in paragraph 6. The Secretary will establish within nine months of the date of this Circular:

(a) Written procedures, developed in such a manner as to allow for the participation of all interested parties, to implement the provisions of this Circular; and

(b) An Interagency Committee on Standards Policy which the Secretary may call upon when needed to assist in implementing the policy contained herein. All executive branch agencies having substantial standardization involvement will be represented on that Committee and will cooperate with the Secretary, as requested, in carrying out tasks assigned to the Committee.

(2) Develop and maintain current a list of voluntary standards bodies which indicate a desire to be listed and which certify to the Secretary that they are in compliance with the due process and other basic criteria cited in paragraph 6c and which provide published evidence of such compliance. The list will be published in the Federal Register and will include the names of voluntary standards bodies and those relevant standards-developing groups in which Federal participation is authorized. The listing will not, however, include names of units subordinate to standards-developing groups. Upon receipt of a specific challenge regarding nonadherence to the due process and other basic criteria, the Secretary will take appropriate steps to determine whether a voluntary standards body or standards-developing group is, in fact, conducting its activities in accordance with the aforecited criteria, the Secretary may call upon the Department of Justice and the Federal Trade Commission for assistance in establishing specific provisions for the due process and other basic criteria in paragraph 6c and in evaluating adherence by voluntary standards bodies to those provisions;

(3) Establish procedures by which the listing of a voluntary standards body or standards-developing group can be challenged by interested persons. For purposes of this paragraph, each standards-developing group may be considered separately. Removal from the list of a group does not automatically call for the removal from the list of all groups of the parent body, or of the parent body itself. The Secretary will establish procedures by which:

(a) Such bodies and groups can be removed from the list if a determination is made by the Secretary that they are operating, and after appropriate notice continue to so operate, without benefit of the due process and other basic criteria cited in paragraph 6c;

(b) Federal agencies will be notified of such removal for the purpose of ceasing their participation in the standards activities of such bodies and groups;

(c) Public notice will be provided of actions taken. Such procedures shall ensure that the rights of the body or group which is the subject of the challenge are comparable to those granted to challengers; and

(d) Voluntary standards bodies which have been delisted or have had one or more standards-developing groups delisted by the Secretary may reapply for listing for themselves or for their standards-developing groups.

(4) Establish and maintain current, with the cooperation of Federal agencies, a central public register of all voluntary standards activities in which Federal agencies participate;

(5) Establish and maintain current, a comprehensive and consolidated listing, cross-referenced by subject, of standards developed by voluntary standards bodies and by Federal agencies. Such listing of standards developed by bodies other than Federal

agencies shall not necessarily constitute Government endorsement thereof;

(6) Establish a program which shall make available a department-sponsored voluntary dispute resolution service for the rapid handling of procedural complaints by interested parties against listed voluntary standards bodies. As a precondition to invoking that service, a complainant must seek relief from, and have exhausted all available sources of remedy within, the affected voluntary standards body. Such a service shall have, among its requirements, the agreement of both complainant and respondent to use the service and their consent to accept the determinations of the service as the sole and final administrative review by the executive branch;

(7) Report annually to the Office of Management and Budget concerning agency implementation of this Circular.

b. The heads of executive agencies concerned with standards and standardization activities will:

(1) Implement the policy in paragraph 5 of this Circular in accordance with the policy guidelines in paragraph 6 and the procedures to be established by the Secretary within 120 days of the issuance of those procedures;

(2) Establish appropriate procedures to ensure that:

(a) Agency representatives refrain from participating in the standards activities of voluntary standards bodies and standards-developing groups which are not listed by the Secretary of Commerce as conducting themselves in accordance with the due process and other basic criteria cited in paragraph 6c, unless such participation is specifically mandated by law;

(b) Agency representatives on voluntary standards bodies are familiar with the due process and other basic criteria contained in paragraph 6c, and that agency representatives who learn of an apparent infringement of the aforecited criteria by a listed voluntary standards body or standards-developing group register their questions and concerns with that body or group and with their agencies; and

(c) The Secretary is notified of such incidents of apparent noncompliance with the aforecited due process and other basic criteria by a listed voluntary standards body;

(3) Establish appropriate procedures by which agency representatives participating in voluntary standards bodies and standards-developing groups will, to the extent possible, ascertain the views of the agency on matters of paramount interest and will, as a minimum, express views which are not inconsistent or in conflict with established agency views;

(4) Endeavor, when two or more agencies participate in a given voluntary standards body or standards-developing group, to coordinate the views of their respective agencies on matters of paramount importance so as to present a single, unified position reflective of the public interest. In instances where agreement is not reached by the affected agencies, such agencies will notify the Secretary who shall designate a lead agency. The lead agency will be responsible for developing a unified position on the important matter at issue. In so doing, that designated lead agency will consider carefully the views of the other participating Federal agencies;

(5) Provide for participation in the Interagency Committee on Standards Policy to be established by the Secretary and cooperate with the Secretary, as requested, in carrying out the mission of that Committee;

(6) Consult with the Secretary in the development and issuance of agency regulations implementing this Circular, and submit, in response to the request of the Secretary, reports on the status of agency interaction with voluntary standards bodies.

8. *Reporting Requirements.* One year from the date of issuance of this Circular, and each year thereafter, the Secretary will submit to the Office of Management and Budget a report on the status of Federal interaction with voluntary standards bodies. As a minimum, the report will include the following information:

a. The nature and extent of Federal agency participation in, and support of, voluntary standards bodies;

b. A summary of the nature of procedural complaints against listed voluntary standards bodies in accordance with the program to be developed, and a summary of the disposition of such complaints; and

c. An evaluation of the effectiveness of the policy promulgated in this Circular and recommendations for change or modification, as appropriate.

9. *Inquiries.* For information concerning this Circular, contact the Office of Management and Budget, Office of Federal Procurement Policy, telephone 202/395-7207.

James T. McIntyre, Jr.,

*Director.*

[FR Doc. 80-1815 Filed 1-18-80; 8:45 am]

BILLING CODE 3110-01-M

Federal Register

Monday
January 21, 1980

Part VII

# Department of Housing and Urban Development

## Office of Assistant Secretary for Housing—Federal Housing Commissioner

## Condominium Ownership Mortgage Insurance, Insurance Involving Existing Single Family Units and Miscellaneous Provision Changes

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

### Office of Assistant Secretary for Housing—Federal Housing Commissioner

### 24 CFR Part 234

[Docket No. R-80-750]

## Condominium Ownership Mortgage Insurance, Insurance Involving Existing Single Family Units and Miscellaneous Provision Changes

**AGENCY:** Department of Housing and Urban Development.

**ACTION:** Proposed Rule.

**SUMMARY:** Section 313 of the Housing and Community Development Amendments of 1978 authorizes the Department to provide FHA mortgage insurance for condominium units in projects that were conventionally financed and if construction was completed for more than one year. These regulations implement that provision.

**DATES:** Comments must be received on or before March 21, 1980.

**ADDRESS:** Written comments should refer to the docket number and date and should be submitted to the Rules Docket Clerk, Office of the General Counsel, Room 5218, Department of Housing and Urban Development, 451 Seventh Street, S.W., Washington, D.C. 20410. A copy of each communication will be available for public inspection during regular business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** William L. Halpern, Director, Single Family Development Division, Department of Housing and Urban Development, Room 9270, 451 Seventh Street, S.W., Washington, D.C. 20410 (202) 755-6720. (This is not a toll free number.)

**SUPPLEMENTARY INFORMATION:** Section 313(a) of the Housing and Community Development Amendments of 1978 (Pub. L. 95-557) amended Section 234(c) of the National Housing Act (12 U.S.C. 1715y) to authorize mortgage insurance involving condominium units in previously uninsured projects or conventionally financed projects if construction of the project was completed more than a year prior to the application for mortgage insurance. The proposed regulations set forth this new insuring authority to provide mortgage financing for potential purchasers and current owners of units already under condominium ownership. This will insure that HUD will treat owners of existing condo units who wish to sell their unit to a new owner in the same way that it treats current owners of single family housing and makes both kinds of housing equally available to consumers. Consistent with Congressional intent, this regulation is intended to assist in the resales of existing condominium units and it is the policy of HUD that this authority not be administered in a manner which encourages prospective conversion of conventional multifamily rental structures to condominiums which result in displacement of tenants or reduce the availability of needed rental housing. Therefore, these regulations only permit the use of this authority for resales of condominium units.

The Department recognizes that the conversion of rental units to condominium or cooperative ownership is a matter of concern to the Congress, and has begun a study of the nature and extent of that activity. In addition, the Department is currently reviewing its authorities and policies with respect to the availability of mortgage insurance for condominium conversions, the provision of assistance for lower income persons affected by conversions, and policies governing the conversion of multifamily projects with FHA mortgage insurance. The conversion issues will be addressed by HUD at a later time.

The proposed regulations set forth requirements which the project must meet for individual units to qualify, and generally restates existing HUD policy with respect to the conversion of multifamily projects currently under FHA multifamily mortgage insurance. Under the existing regulations, FHA mortgage insurance is available for single-family condominium units only where the project in which the unit is located is or was covered by an FHA project mortgage, or contains 11 or fewer units. Section 234.13(a) of the regulations has been modified to increase the application fee in line with the current 203(b) fee schedule. Section 234.13(b)(4)(iii) has been revised to make it clear that extension fees will not be charged when the unit is in an existing HUD-FHA insured multifamily project where the initial sales of the units taking place under the conversion of a multifamily project. Section 234.26 has been rewritten to include the insuring of mortgages encumbering existing single-family units in addition to existing provisions for conversion of projects to condominium ownership. Under the proposed amendments, a condominium unit would be eligible for mortgage insurance if (1) the project construction has been completed more than one year prior to the application for mortgage insurance, (2) at least 70 percent of the units are owner occupied and 90 percent of the units are sold and transactions finalized, and (3) HUD, through the application of appropriate administrative and underwriting guidelines, determines that the project is acceptable. In addition, the existing limitation as to the number of units in the project covered with insured mortgages and owned by the same mortgagor will remain applicable. Provisions have been made to bring the downpayment and maximum mortgage amount ratios for veterans into line with HUD's basic home mortgage insurance program, Section 203(b). The amendments also require flood insurance where applicable, and change the amount of principal obligation in the mortgage from multiples of $100 to multiples of $50. The purpose of the amendments is to facilitate resale in existing condominium units. Also, Section 234.26 has been amended to reduce the presale requirement to 70 percent.

A finding of inapplicability respecting the National Environmental Policy Act of 1969 has been made in accordance with HUD procedures. A copy is available for public inspection in the Office of the Rules Docket Clerk at the address listed above. This significant rule was listed on the Department's agendas which were published in the Federal Register on February 1, 1979 and August 1, 1979. Accordingly, it is proposed that Chapter II of Title 24 be amended as follows:

## PART 234—CONDOMINIUM MORTGAGE INSURANCE

1. By amending § 234.13(a)(1) and (b)(4)(iii) as follows:

**§ 234.13 Application and commitment extension fees.**

(a) *Application fee*—(1) Amount of fee. The mortgagee shall pay an application fee of $50 per family unit to cover the cost of processing.

* * * * *

(b) * * *

(4) Fee not required. A mortgagee shall not be required to pay a commitment extension fee where:

(i) The commitment to be extended or reopened is in connection with an application made on behalf of a veteran under circumstances set forth in paragraph (a)(4)(ii) of this section; or

(ii) The commitment is in connection with the insurance of a mortgage to finance the purchase of Secretary held property.

(iii) The commitment is in connection with the initial sale of the family units

following the conversion of a multifamily structure involving HUD insured project mortgage to apartment ownership.

2. By adding a new § 234.17 as follows:

**§ 234.17 Mortgagor and mortgagee requirements for maintaining flood insurance coverage.**

(a) If the mortage is to cover property that (1) is located in an areas designated by the Secretary as a flood plain area having special flood hazards or (2) is otherwise determined by the Commissioner to be subject to a flood hazard; and if flood insurance under the National Flood Insurance Program (NFIP) is available with respect to such property, the mortgagor and mortgagee shall be obligated, by a special condition to be included in the mortgage insurance commitment, to obtain and to maintain NFIP flood insurance coverage on the property during such time as the mortgage is insured. The flood insurance to be maintained shall be in an amount at least equal to either the outstanding balance of the mortgage, less estimated land costs, or the maximum amount of NFIP insurance available with respect to the property, whichever is less. The maintainence of flood insurance coverage on the project by the Association will satisfy the requirements of this section if such coverage protects the interest of the mortgagor in the family unit. For this purpose the interest of the mortgagor is defined as insurance coverage equal to the replacement cost of the project less land costs.

(b) No mortgage shall be insured which covers property located in an area that has been identified by the Secretary as an area having special flood hazards unless the community in which the area is situated is participating in the National Flood Insurance Program, and such insurance is obtained by the mortgagor. Such requirement for Flood insurance shall be effective July 1, 1975, or one year after the date of notification by the Secretary to the chief executive officer of a flood prone community that such community has been identified as having special flood hazards, whichever is later. The amount of flood insurance required need not exceed the principal balance of the mortgage, less estimated land costs, and need not be required beyond the term of the mortgage.

3. By amending § 234.25(b) as follows:

**§ 234.25 Mortgage provisions.**

* * * * *

(b) Mortgage multiples. The mortgage shall involve a principal obligation in multiples of $50.

* * * * *

4. By amending § 234.26 as follows:

**§ 234.26 Project requirements.**

No mortgage shall be eligible for insurance unless the following requirements are met:

(a) Location of family unit. The family unit shall be located in a project which the Commissioner determines to be acceptable, and which:

(1) is or has been covered by a project mortgage insured under an FHA multifamily housing program; or

(2) contains less than 12 units; or

(3) contains 12 or more units and more than one year prior to the application for mortgage insurance (I) construction of the project was completed and (II) the project was committed to a plan of condominium ownership by deed or other recorded instrument.

(i) In determining whether construction of a multifamily project has been completed for at least one year as required under paragraph (a)(3), the date on which construction was completed shall be the latest of the dates on which:

1. All units have been substantially completed as evidenced by certificates of occupancy from a governmental entity or recorded certificates of completion executed by a registered or licensed architect or engineer,

2. The declarant has completed all common elements and improvements which the declarant is obligated to complete by virtue of State condominium law or the condominium documents, or

3. Any right of the declarant to do any and all of the following has expired or has been waived in a recorded instrument:

(i) Add land or units to the condominium

(ii) Convert common elements into additional units or limited common elements.

(iii) Withdraw land from the condominium

(iv) Use easements through the common elements for the purpose of making improvements within the condominium or within any adjacent land, or

(v) Convert a unit into two or more units, common elements, or into two or more units and common elements.

As used in this paragraph 'declarant' shall include all declarants and successor to the declarant.

(b) *Plan of condominium-ownership.* The project shall have been committed to a plan of condominium-ownership by a deed, or other recorded instrument, which is acceptable to the Commissioner.

(c) *Releases.* The family unit shall have been released from any mortgage covering the project or any part of the project.

(d) *Certificate by mortgagee.* The mortgagee shall certify that: (1) The deed for the family unit and the deed or other recorded instrument committing the project to a plan of condominium-ownership comply with all legal requirements of the jurisdiction.

(2) The mortgagor has good marketable title to the family unit subject only to the mortgage which is a valid first lien on the same.

(3) The family unit is assessed and subject to assessment for taxes pertaining only to that unit.

(e) *Controls for consumer and public interest.* The Commissioner may require such conditions and provisions as he/she deems necessary for the protection of the consumer and public interest.

(f) *Projects which have not been covered by an insured mortgage.* Projects containing 12 or more units which have not been covered by a mortgage insured under any FHA multifamily housing program and projects containing 12 or more units which are or have been covered by a mortgage insured under sections 213(a)(1) or 213(a)(2) of the Act shall meet the following additional requirements.

(1) At least 90 percent of the family units shall have been sold and the titles thereto conveyed to owners having no interest with the developer or the declarant.

(2) At least 70 percent (or such lesser number as the Commissioner may prescribe) of the family units shall be occupied by the owners.

(g) *Projects which have been or are covered by an FHA insured mortgage.* Projects which have been or are covered by a mortgage insured under an FHA multifamily housing program may be converted to condominium-ownership if converted in compliance with a conversion plan approved by the Commissioner. The conversion plan shall provide for:

(1) The termination by payment in full of the mortgage or by voluntary termination of the insurance contract covering any FHA insured mortgage on the project, unless the Commissioner determines that his/her interests and those of the individuals purchasing the family units are best served by not requiring the termination of the insurance.

(2) The release of each family unit from any existing project mortgage covering the project pursuant to a

release plan approved by the FHA. The plan shall provide for a payment to be made on the outstanding balance of the project mortgage in an amount equal to the share of the balance determined by the FHA to be attributable to the family unit.

(3) The conveyance of family units, equal in value to at least 70 percent (or such lesser percentage as the Commissioner may prescribe) or the total value of all units to owners approved by the FHA.

(4) The project mortgagee shall certify notwithstanding any provisions of the mortgage covering prepayment, that no charge is contemplated or has been collected for prepayment in full of the project mortgage.

(h) The Commissioner may require such conditions and provisions as he/she deems necessary including, but not limited to, the execution of an agreement between the owners and the Commissioner which shall be made applicable to the Association and to any owner of a family unit.

5. By amending § 234.27(a)(2) as follows:

**§ 234.27 Maximum mortgage amounts.**

* * * * *

(2) 97 percent of the first $25,000 of the Commissioner's estimate of the appraised value of the family unit as of the date the mortgage is accepted for insurance, (100 percent of $25,000 of such value of the sum of such value not in excess of $25,000 and the items of prepaid expense approved by the Commissioner minus $200, whichever appraised amount or sum is the lesser in the case of a mortgagor meeting the veteran qualification provided in § 203.18(b)), and 95 percent of such value in excess of $25,000.

* * * * *

6. By amending § 234.28 and redesignating paragraph (b) as paragraph (c) and by adding a new paragraph (b) as follows:

**§ 234.28 Mortgagor's minimum investment.**

(a) * * *

(b) The mortgage shall contain a convenant by the mortgagor to pay the allocated share of the common expenses or assessments and charges by the Association of Owners as provided in the Plan of Condominium Ownership and a provision approved by the Commissioner by which an Agreement, if any, is incorporated in and made a part of the mortgage.

* * * * *

7. By deleting § 234.59, Certificate and contract regarding use of family units for transient or hotel purposes, and substitute as follows:

**§ 234.59 Mortgagor limitations.**

The family unit to be covered by an insured mortgage shall be for the use and occupancy of the mortgagor or the mortgagor shall be the owner of another family unit covered by an insured mortgage for such use and occupany. The mortgagor may not own more than four family units covered by insured mortgages, one of which shall be for his/her own use and occupancy.

Authority: The provisions of this Part 234 issued under sec. 211, 52, Stat. 23, as amended, sec. 234, 75 Stat. 161; 12 U.S.C. 1715b, 1715y.

Issued at Washington, D.C. on November 30, 1979.

Lawrence B. Simons,

*Assistant Secretary for Housing—Federal Housing Commissioner.*

[FR Doc. 80-1669 Filed 1-18-80; 8:45 am]

BILLING CODE 4210-01-M

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## AGENCY PUBLICATION ON ASSIGNED DAYS OF THE WEEK

The following agencies have agreed to publish all documents on two assigned days of the week (Monday/Thursday or Tuesday/Friday). This is a voluntary program. (See OFR NOTICE FR 32914, August 6, 1976.)

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| DOT/SECRETARY | USDA/ASCS | | DOT/SECRETARY | USDA/ASCS |
| DOT/COAST GUARD | USDA/APHIS | | DOT/COAST GUARD | USDA/APHIS |
| DOT/FAA | USDA/FNS | | DOT/FAA | USDA/FNS |
| DOT/FHWA | USDA/FSQS | | DOT/FHWA | USDA/FSQS |
| DOT/FRA | USDA/REA | | DOT/FRA | USDA/REA |
| DOT/NHTSA | MSPB/OPM | | DOT/NHTSA | MSPB/OPM |
| DOT/RSPA | LABOR | | DOT/RSPA | LABOR |
| DOT/SLSDC | HEW/FDA | | DOT/SLSDC | HEW/FDA |
| DOT/UMTA | | | DOT/UMTA | |
| CSA | | | CSA | |

Documents normally scheduled for publication on a day that will be a Federal holiday will be published the next work day following the holiday.

Comments on this program are still invited. Comments should be submitted to the Day-of-the-Week Program Coordinator, Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D.C. 20408

## REMINDERS

The items in this list were editorially compiled as an aid to **Federal Register** users. Inclusion or exclusion from this list has no legal significance. Since this list is intended as a reminder, it does not include effective dates that occur within 14 days of publication.

### Rules Going Into Effect Today

**FEDERAL COMMUNICATIONS COMMISSION**

73098 12-17-79 / Clarification of use of certain frequencies by aircraft for the control of airport lights

73099 12-17-79 / Deletion of permit requirement for Canadian amateurs operating in the U.S.

73095 12-17-79 / Exemption of certain vessels operating in VTS areas from requirement to maintain a listening watch on VHF channel 16

**FEDERAL TRADE COMMISSION**

66466 11-19-79 / Rule for using energy costs and consumption information used in labeling and advertising for consumer appliances under the Energy Policy and Conservation Act

**TRANSPORTATION DEPARTMENT**

Federal Highway Administration—

75552 12-20-79 / Administration of negotiated contracts

### List of Public Laws

Note: No public bills which have become law were received by the Office of the Federal Register for inclusion in today's List of Public Laws.

A complete listing for the first session of the 96th Congress was published in the Reader Aids section of the issue of January 17, 1980.