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Tuesday  
June 12, 1984

# Environmental Protection Agency

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## Selected Subjects

**Administrative Practice and Procedure**  
Nuclear Regulatory Commission

**Air Pollution Control**  
Environmental Protection Agency

**Animal Drugs**  
Food and Drug Administration

**Colleges and Universities**  
Education Department

**Crop Insurance**  
Federal Crop Insurance Corporation

**Electric Power Rates**  
Federal Energy Regulatory Commission

**Fisheries**  
National Oceanic and Atmospheric Administration

**Generally Recognized as Safe (GRAS) Food Ingredients**  
Food and Drug Administration

**Hazardous Materials Transportation**  
Research and Special Programs Administration

**Housing Standards**  
Housing and Urban Development Department

**Life Insurance**  
Veterans Administration

**Marketing Agreements**  
Agricultural Marketing Service

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## Selected Subjects

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Questions and requests for specific information may be directed to the telephone numbers listed under INFORMATION AND ASSISTANCE in the READER AIDS section of this issue.

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# Presidential Documents

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Title 3—

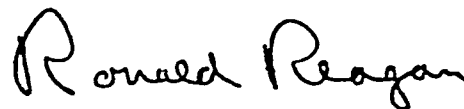
Presidential Determination No. 84-9 of May 31, 1984

The President

**Determination Under Subsection 402(d)(5) of the Trade Act of 1974—Continuation of Waiver Authority****Memorandum for the Secretary of State**

Pursuant to the authority vested in me under the Trade Act of 1974 (Public Law 93-618), January 3, 1975 (88 Stat. 1978) (hereinafter "the Act"), I determine, pursuant to subsection 402(d)(5) of the Act, that the further extension of the waiver authority granted by subsection 402(c) of the Act will substantially promote the objectives of section 402 of the Act. I further determine that the continuation of the waivers applicable to the Hungarian People's Republic, the People's Republic of China and the Socialist Republic of Romania will substantially promote the objectives of section 402 of the Act.

This determination shall be published in the Federal Register.



THE WHITE HOUSE,  
*Washington, May 31, 1984.*

[FR Doc. 84-15319

Filed 6-8-84; 12:30 pm]

Billing code 3195-01-M



# Rules and Regulations

Federal Register

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Tuesday, June 12, 1984

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 week.

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

#### 7 CFR Part 928

[Hawaiian Papaya Reg. 13]

#### Papayas Grown in Hawaii; Grade Requirement

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

**ACTION:** Interim final rule with request for comments.

**SUMMARY:** This interim final rule requires that fresh papayas shipped to markets outside Hawaii grade at least Hawaii No. 1, effective July 1, 1984. This requirement is designed to promote the marketing of fresh papayas of suitable quality in the interest of producers and consumers.

**EFFECTIVE DATE:** July 1, 1984. Comments due by July 12, 1984. The Director of the Federal Register approves the incorporation by reference of Hawaiian papaya grade standards in 7 CFR Part 928.313.

**FOR FURTHER INFORMATION CONTACT:** William J. Doyle, Chief, Fruit Branch, F&V, AMS, USDA, Washington, D.C. 20250, telephone 202-447-5975.

**SUPPLEMENTARY INFORMATION:** This interim final rule has been reviewed under Secretary's Memorandum 1512-1 and Executive Order 12291, and has been designated a "non-major" rule. William T. Manley, Deputy Administrator, Agricultural Marketing Service, has certified that this action will not have a significant economic impact on a substantial number of small entities.

The interim final rule is issued under the marketing agreement and Order No. 928 (7 CFR Part 928), regulating the handling of papayas grown in Hawaii. The agreement and order are effective

under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674).

Under the papaya grade regulation, export shipments of fresh papayas will be subject to a minimum grade requirement of Hawaii No. 1, with specified additional allowances for certain defects and exemption from weight requirements of the grade. Also shipments of immature papayas would be exempt from regulation under § 928.152 if handled for special purposes (e.g. cooking). The grade regulation for Hawaiian papayas would be the first issued since the 1931 season. Since that time Hawaiian papaya crops have been affected by adverse weather conditions which have rendered regulation unnecessary. The grade requirement is based upon the recommendations and information submitted by the Papaya Administrative Committee, and upon other available information.

Total Hawaiian papaya production for the 1984 season is forecast at 90,000,000 pounds, two-thirds more than in 1983, and 40 percent more than the record in 1978. Of this total, an estimated 60,000,000 pounds of papayas will be shipped fresh in 1984 to export markets primarily in the continental United States, Canada, and Japan, compared with 35,000,000 pounds in 1983. Fresh shipments within Hawaii are estimated at 15,000,000 pounds, and the amount utilized in processing at 15,000,000 pounds, for the 1984 season. Hawaiian fresh papaya production for the first 4 months of 1984 amounted to 21,800,000 pounds, up considerably from the 11,130,000 pounds produced during the same period in 1983. Papaya production for August 1984 is forecast at a record 7,000,000 pounds, up considerably from the 3,447,000 produced in August 1983. Papayas failing to meet the grade requirement could be disposed of in unregulated outlets, such as the fresh market within the State of Hawaii, and the processed products market. In view of the anticipated continued heavy shipments to the export markets in 1983, establishment of the minimum grade requirement would provide for orderly marketing of the Hawaiian papaya crop.

The purpose of the grade requirement is to promote orderly marketing conditions and protect grower returns by preventing the shipment of poor quality papayas. Shipment of low quality papayas tends to disrupt orderly

marketing, and depress prices of all papayas since the presence of low quality fruit undermines consumer confidence in the quality of all fruit sold in the market and discourages repeat purchases. The regulation is necessary to assure shipment of papayas of acceptable quality and promote orderly marketing.

Accordingly, the Secretary finds that upon good cause shown it is impracticable, unnecessary, and contrary to the public interest to give preliminary notice, engage in other public procedures, and postpone the effective date of this interim final rule until 30 days after publication in the Federal Register (5 U.S.C. 553), because of insufficient time between the date when information became available upon which this rule is based and the effective date necessary to effectuate the declared policy of the Act. Shipments of Hawaiian papayas are currently in progress. Interested persons were given an opportunity to submit information and views on the grade requirement for 1984 season Hawaiian papayas at an open meeting at which the committee without opposition recommended implementation of the requirements for Hawaiian papayas specified in this rule. Hawaiian papaya handlers have been apprised of the provisions and effective date of the Hawaiian papaya regulation. The interim final rule provides a 30-day comment period. A longer comment period would be contrary to the public interest, as any comments on the effect of the rule need to be received within 30 days, so that any necessary changes can be made promptly in the grade requirement. All comments received will be considered prior to finalization of this rule. It is found that this rule will tend to effectuate the declared policy of the Act.

#### List of Subjects in 7 CFR Part 928

Marketing agreements and orders, Papayas, Hawaii, Incorporation by reference.

#### PART 928—[AMENDED]

Therefore, a new § 928.313 is added reading as follows:

#### § 928.313 Hawaiian Papaya Regulation 13.

(a) On and after July 1, 1984, no handler shall ship any container of

papayas to any export destination (except immature papayas handled pursuant to § 928.152) unless such papayas grade at least Hawaii No. 1: *Provided*, That not more than 3 percent shall be immature fruit: *Provided further*, That the weight requirements specified in this grade shall not apply to such shipments.

(b) "Hawaii No. 1" cited in this regulation is specified in the Hawaii Department of Agriculture Standards for Fruits and Vegetables (Title 4, Subtitle 4, Chapter 41, Subchapter 7, § 4-41-52) (5/29/81). Copies of the grade specifications are available from William J. Doyle, Chief, Fruit Branch, F&V, AMS, USDA, Washington, D.C. 20250, telephone 202-447-5975, and they are also available for inspection at the office of the Federal Register Information Center, Room 8301, 1100 L Street, NW., Washington, D.C. 20408. This incorporation by reference was approved by the Director of the Federal Register. The materials are incorporated as they exist on the date of approval and a notice of any changes in the material will be published in the Federal Register.

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

Dated: June 7, 1984.

Thomas R. Clark,  
Deputy Director, Fruit and Vegetable  
Division, Agricultural Marketing Service.

[FR Doc. 84-15738 Filed 6-11-84; 8:45 am]

BILLING CODE 3410-02-M

## NUCLEAR REGULATORY COMMISSION

### 10 CFR Part 2

#### Abolition of the Position of Appeal Panel Vice Chairman

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Final rule.

**SUMMARY:** The Nuclear Regulatory Commission is amending its regulations to abolish the position of permanent Vice Chairman of the Atomic Safety and Licensing Appeal Panel and to authorize the most senior available full-time Appeal Panel member to perform certain functions previously performed by the Vice Chairman. Specifically, these amendments will authorize such Appeal Panel member to assign members of the Panel to serve as members of an Atomic Safety and Licensing Appeal Board for a particular proceeding if the permanent Chairman of the Panel is not available to make the assignment. The amendments will also authorize the

most senior available full-time Appeal Panel member to act for an Appeal Board on procedural matters in specified circumstances.

**EFFECTIVE DATE:** June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:** Linda S. Gilbert, Office of the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Telephone: (301) 492-7678.

**SUPPLEMENTARY INFORMATION:** Under § 2.787 of the Commission's rules of practice, the permanent Vice Chairman of the Atomic Safety and Licensing Appeal Panel is assigned certain administrative and procedural duties in specified circumstances. The Commission has decided to abolish the position of permanent Vice Chairman of the Appeal Panel. In connection with this action, the Commission is amending § 2.787 to authorize the most senior available full-time Appeal Panel member, based on the date of appointment as a member of the Panel, to perform those functions previously performed by the Vice Chairman under that section.

Section 2.787(a) governs the assignment of Appeal Panel members to serve on three-member Appeal Boards for particular proceedings. Among other things, it provides that the permanent Chairman of the Appeal Panel shall make such assignments. In the absence of the Chairman, the permanent Vice Chairman of the Appeal Panel shall perform this function. The section has been amended to provide that, in the absence of the Chairman, the most senior available full-time member of the Appeal Panel shall assign Panel members to serve on particular Appeal Boards.

Section 2.787(b) sets forth the persons who are authorized to act for an Appeal Board on procedural matters, including requests for stays of orders of presiding officers, in the absence of a quorum. They are, in order of preference: (1) the Chairman of the Appeal Board assigned for the particular proceeding, (2) the permanent Chairman of the Appeal Panel, or (3) the permanent Vice Chairman of the Appeal Panel. Section 2.787(b)(3) has been amended to substitute the most senior available full-time Appeal Panel member for the permanent Vice Chairman of the Appeal Panel.

The language of § 2.787(b)(3) has also been revised to clarify when the most senior available full-time Appeal Panel member is authorized to act for an Appeal Board on procedural matters. Specifically, the following two conditions must be met: (1) the Chairman of the particular Appeal

Board must be unavailable or the position must not yet be assigned, and (2) the permanent Chairman of the Appeal Panel must be unavailable or the position must be vacant.

These amendments relate solely to minor matters of agency management and do not themselves alter the rights or interests of parties or licensees. Accordingly, the notice and comment procedures of the Administrative Procedure Act, 5 U.S.C. 553, are inapplicable and the amendments may be made effective on publication in the Federal Register.

#### Paperwork Reduction Act Statement

The information collection requirements contained in this final rule are exempt from the Paperwork Reduction Act of 1980 (44 U.S.C. 3518(c)(1)).

#### List of Subjects in 10 CFR Part 2

Administrative practice and procedure, Antitrust, Byproduct material, Classified information, Environmental protection, Nuclear materials, Nuclear power plants and reactors, Penalty, Sex discrimination, Source material, Special nuclear material, Waste treatment and disposal.

The authority citation for this document is:

(Sec. 161, Pub. L. 83-703, 68 Stat. 948, as amended (42 U.S.C. 2201))

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended and 5 U.S.C. 552, 553, the NRC is adopting the following amendments to 10 CFR Part 2.

### PART 2—RULES OF PRACTICE FOR DOMESTIC LICENSING PROCEEDINGS

Section 2.787 is revised to read as follows:

#### § 2.787 Composition of Atomic Safety and Licensing Appeal Boards.

(a) An Atomic Safety and Licensing Appeal Board is composed of three members, possessing qualifications deemed appropriate to the issues to be decided, assigned for each proceeding from the Atomic Safety and Licensing Appeal Panel. Members shall be assigned by the permanent Chairman of the Panel or, in his or her absence, by the most senior available full-time member of the Appeal Panel. For purposes of this section, seniority will be determined according to the date of appointment as a member of the Atomic Safety and Licensing Appeal Panel. The Chairman of an Appeal Board for a



particular proceeding shall be qualified in the conduct of administrative proceedings. An alternate may be assigned to serve as a member of an Atomic Safety and Licensing Appeal Board for a particular proceeding in the event that a member assigned to such proceeding becomes unavailable.

(b) In the absence of a quorum, the following individuals are authorized to act for an Appeal Board on procedural matters, including requests for stays of orders by presiding officers:

(1) The Chairman of the Appeal Board assigned for a particular proceeding;

(2) The permanent Chairman of the Atomic Safety and Licensing Appeal Panel, in the event that the Chairman for a particular proceeding is not available to act upon the matter in question, or has not been assigned.

(3) The most senior available full-time member of the Appeal Panel, in the event that (i) the Chairman for a particular proceeding is unavailable or has not been assigned, and (ii) the permanent Chairman of the Appeal Panel is unavailable or the position is vacant.

(c)(1) Except with respect to requests for stays of orders of presiding officers, action by a designated individual under the authority of paragraph (b) of this section shall be reviewable by the Appeal Board for the particular proceeding, upon its own motion or upon a motion filed within three (3) days of the date of the particular action in accordance with § 2.730.

(2) Action under the authority of paragraph (b) of this section with respect to requests for stays of orders of presiding officers shall be reviewable by the Commission, upon its own motion or upon a motion filed within three (3) days of the date of the particular action in accordance with § 2.730.

Dated at Washington, D.C., this 6th day of June 1984.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,  
Secretary of the Commission.

[FR Doc. 84-15733 Filed 6-11-84; 8:45 am]  
BILLING CODE 7530-01-M

## 10 CFR Parts 2 and 50

### Financial Qualifications Statement of Policy

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Policy statement.

SUMMARY: In response to the issuance of the mandate of the U.S. Court of Appeals for the D.C. Circuit in *New*

*England Coalition on Nuclear Pollution v. NRC*, 727 F.2d 1127 (D.C. Cir. 1984), the Nuclear Regulatory Commission issues a statement of policy clarifying its response to the Court's remand.

FOR FURTHER INFORMATION CONTACT: Carole F. Kagan, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; phone (202) 634-1493.

SUPPLEMENTARY INFORMATION: On February 7, 1984, the U.S. Court of Appeals for the District of Columbia Circuit granted a petition for review by the New England Coalition on Nuclear Pollution (NECNP) which challenged the Commission's March 31, 1982, rule eliminating case-by-case financial qualification review requirements for electric utilities. *New England Coalition on Nuclear Pollution v. NRC*, 727 F.2d 1127 (D.C. Cir. 1984). The Court found that the rule was not adequately supported by its accompanying statement of basis and purpose and remanded to the agency, but did not explicitly vacate the rule.

In response to this decision, the Commission initiated a new financial qualification rulemaking to clarify its position on financial qualification reviews for electric utilities. 49 FR 13044 (1984). One of the points focused upon in the Court's decision was the Commission's observation in the Statement of Considerations for the March 31, 1982 rule that utilities encountering financial difficulties in the past during construction have chosen to abandon or postpone projects rather than cut corners or safety. The Court believed that such actions by some utilities do not guarantee that all financially troubled utilities would follow the same course. The revised proposed rule would eliminate financial review only at the operating license stage. The question of reasonable assurance of adequate construction funding can be an issue only at the construction permit stage. Thus, the Commission's current rulemaking is responsive to the Court's concern by maintaining the financial qualifications review for construction permit applicants.

The Court was also troubled by what it perceived to be an inconsistency between elimination of the review only for electric utilities and the Commission's observation that financial qualifications reviews are unnecessary because it finds no link between financial qualifications and safety. This observation is not relied on in the new proposed rule. Instead, the rule is premised on the assumption that, at the operating license level, regulated

utilities will be able to cover the costs of operation through the ratemaking process.

In the interim, the Court's mandate has issued. The mandate contained no guidance other than that furnished in the Court's opinion. The Commission has concluded that the issuance of the mandate does not have the effect of restoring the previous regulation under which financial qualification review was required as a prerequisite for a reactor construction permit or operating license. In remanding the rule to the Commission without explicitly vacating the rule, the Court cited *Williams v. Washington Metropolitan Area Transit Commission*, 415 F.2d 922 (D.C. Cir. 1969) (*en banc*), cert. denied 393 U.S. 1031 (1969). *Williams* does not require that the agency action be vacated on remand. In another situation where the D.C. Circuit remanded a set of rules to an agency for an adequate statement of basis and purpose, the Court allowed the old rules to stand pending agency action to comply with the Court's mandate. *Rodway v. United States Department of Agriculture*, 514 F.2d 809 (D.C. Cir. 1975). The Commission is complying with the Court's mandate by repromulgating its financial qualifications rule in a manner responsive to the Court's concern. The Commission anticipates that the new rule eliminating financial review at the operating license stage only will soon be in place. While there are no construction permits proceedings now in progress, there are several ongoing operating license proceedings to which the new rule will apply. It would not appear reasonable to construe the Court's opinion as requiring that the Commission instruct its adjudicatory panels in these proceedings to begin the process of accepting and litigating financial qualifications contentions, a process which would delay the licensing of several plants which are at or near completion, only to be required to dismiss the contentions when the new rule takes effect in the near future.

Accordingly, the March 31, 1982 rule will continue in effect until finalization of the Commission's response to the Court's remand. The Commission directs its Atomic Safety and Licensing Board Panel and Atomic Safety and Licensing Appeal Panel to proceed accordingly.

Commissioner Gilinsky did not participate in this decision. Commissioner Asselstine's dissent from this decision and the separate views of Chairman Palladino and Commissioners Roberts and Bernthal follow.

### Separate Statement of Chairman Palladino

The Court of Appeals remanded the financial qualifications rule to the Commission. The Commission promptly initiated rulemaking to address the deficiencies identified by the Court. It then faced the question of what to do about financial qualifications in pending operating license cases. The Court's opinion did not say that the rule was "vacated." Thus, the Commission was presented with a question of interpretation of the Court's opinion. The Commission adopted the view that the Court's opinion could reasonably be interpreted as not vacating the rule for operating license reviews.

The Commission has not sought to flout the Court or escape its mandate. The Commission has attempted to be responsive to the Court's opinion and, at the same time, has sought to avoid unnecessary disruption of its licensing and regulatory program. It interpreted the Court's opinion with full recognition that the Court would correct its interpretation if the Court had intended to vacate the rule.

### Separate Statement of Commissioner Roberts

I join in the separate statement of Chairman Palladino. In addition, I would point out that, of the five contentions perceived by the Court to have been raised by the petitioners' challenge, the Court agreed only with the last—that the rule is not supported by its accompanying statement of basis and purpose. In discussing the grounds for its remand, the Court addressed only its basis for disagreement with that portion of the rule that would eliminate a financial qualifications review in connection with consideration of applications for construction permits. The Court concluded that, in refusing to consider, in a vacuum, the general ability of utilities to finance the construction of new generation facilities, the Commission had abandoned what seemed to the Court "the only rational basis enunciated for generally treating public utilities differently for the purpose at hand."

The Court apparently did not focus on the rationality of the Commission's basis for treating public utilities differently for the purpose of considering applications for operating licenses. Thus, it appears unlikely that the Court intended, or had any reason, to vacate that portion of the rule eliminating a financial qualifications review in connection with consideration of applications for operating licenses.

### Separate Views of Commissioner Bernthal

I believe that the Commission's action in instituting the recent rulemaking proceeding is fully responsive to the Court's mandate. As the Commission's policy statement indicates, the Court's criticism of the Commission's rationale for the March 1982 rule related solely to issues which, even under the pre-1982 rule, would be litigable only at the construction permit stage of review. Therefore, even if one assumes for the sake of argument that the Court vacated the rule insofar as it found the Commission's rationale inadequate, the Commission took prompt action in modifying the 1982 regulation by proposing a rule which would reinstate financial qualifications reviews for all construction permit applicants.

I have based my decision on a plain reading of the opinion of the Court, wherein the Court listed the five contentions raised by the appellants, and noted "We agree with the last [of the five contentions]." That is, the Court held that "the rule is not supported by its accompanying statement of basis and purpose \* \* \*" and accordingly remanded the rule to the agency. Given that holding, I believe the Commission's action is directly and precisely responsive to the decision of the Court. It is unfortunate that the Commission was required to consider elaborate arguments and interpretations based on legal precedent to resolve what should have been a straightforward matter.

I concur in the views of the Chairman and Commissioner Roberts.

### Separate Views of Commissioner Asselstine

The Commission's policy statement is both shortsighted and most likely illegal. The Commission is in effect betting that the D.C. Circuit will not now act to make it very clear that the Commission's "new" financial qualifications rule has indeed been vacated, and that the Commission must re-open all those proceedings in which the rule was used to exclude financial qualification contentions. I choose not to join the majority in this course because I believe that the Court's previous decision effectively vacates the Commission's 1982 financial qualifications rule. Moreover, I believe that the Commission's approach risks in the long run serious disruptions and delays to pending cases.

Our Executive Legal Director, our General Counsel and now the Department of Justice have all advised the Commission that the decision of the D.C. Circuit did indeed vacate the

Commission's 1982 financial qualifications rule. They told us that this means that the old rule governs until the Commission can substitute a valid new rule removing the issue from proceedings. The best that our legal advisors could say about the course being pursued by the Commission is that the Commission's position is "colorable" given the absence of explicit language in the Court's decision vacating the rule. They indicated, however, that they would not advise taking this course because of the significant litigation risk involved. My reading of the case law leads me to agree with their conclusion.

To deal with this situation, the General Counsel proposed an interim policy statement which would have enabled the boards and parties to resolve the financial qualifications issue in individual cases in an expeditious manner. There would have been some unavoidable, short-term delay and some inconvenience in a few cases. However, had the Commission acted in a timely manner to adopt that policy statement when it was proposed a month ago, much of that inconvenience and delay would be over by now.

Instead, the Commission has chosen to ignore the advice of all of its legal advisors and to act as if the 1982 rule were still valid. By pursuing this course, the Commission risks reaction by the D.C. Circuit which would not only reject the Commission's erroneous interpretation of the Court's previous decision but which would also set out precisely what the Commission must do in the case of those proceedings decided under the invalid rule. Any flexibility in dealing with these proceedings could well be lost to the Commission, and serious delays and disruption could result if the Court decides several months from now that all of these proceedings must be reopened.

Moreover, it is not clear that there exists an adequate factual basis to support a new rule eliminating financial qualification issues from all nuclear powerplant operating license proceedings. For example, even if it is possible to demonstrate that electric utilities receive routine approval of funding requests to cover the cost of operating a nuclear powerplant—an essential element in the justification for the Commission's new proposed financial qualification rule, this does not necessarily assure that these funds will be used by the utility for meeting operating plant safety needs. The financial difficulties facing several electric utilities in meeting the cost of ongoing construction programs and in providing an adequate rate of return on

investment are widely publicized. It is likely that in such cases these factors can create pressures on the utility to reallocate operating funds to other competing functions. In such circumstances, ratemaking decisions sufficient to cover operating expenses alone would not necessarily provide an adequate justification for excluding financial qualification issues from operating license proceedings.

Perhaps most disturbing of all is the Commission's willingness in this case, as well as in some other recent decisions, to take what are at best questionable legal positions for the sake of gaining a perceived short-term benefit. This approach does everyone involved in our licensing proceedings a disservice and has several unfortunate consequences. Such procedural shortcuts can ultimately be very disruptive to many ongoing licensing proceedings if a court rejects the Commission's approach months or years later, when the number of affected proceedings has grown substantially. Furthermore, continually taking questionable legal positions can easily lead to a much more searching and critical attitude on the part of reviewing courts, and to adverse decisions that can seriously restrict agency flexibility in dealing with future cases. Finally, the Commission's approach simply reinforces the belief of many that this agency will go to any lengths to deny members of the public a fair opportunity to raise issues in our licensing proceedings and to have those issues fully and fairly litigated.

Signed in Washington, D.C., this 7th day of June 1984.

For the Nuclear Regulatory Commission,  
Samuel J. Chilk,  
Secretary of the Commission.

[FR Doc. 84-15724 Filed 6-11-84; 8:45 am]  
BILLING CODE 7550-01-M

## 10 CFR Part 170

### Revision of License Fee Schedule

#### Correction

In FR Doc. 84-13517 beginning on page 21293 in the issue of Monday, May 21, 1984, make the following corrections:

1. On page 21293, second column, the **EFFECTIVE DATE** now reading "June 18, 1984" should read "June 20, 1984".
2. On the same page, third column, second complete paragraph, line four, "developed" should read "developing".
3. On page 21294, first column, line eleven, "Broadcaster" should read "Broadcasters".

4. On the same page, first column, line seventeen, "**Commission**" should read "**Communication**".

5. On page 21295, first column, Elimination of Coilings, paragraph three, first line, "not" should read "no".

6. On page 21298, first column, second complete paragraph, line eighteen, "four" should read "for".

7. On the same page, third column, first complete paragraph, line three, "effective" should read "effective".

8. On page 21297, first column, first complete paragraph, line thirteen, "335" should read "355".

9. On page 21299, third column, first complete paragraph, insert the sentence "An individual operator cannot be licensed apart from a facility." between lines fourteen and fifteen.

10. On page 21300, third column, eleventh line from the bottom, "that" should read "than".

11. On page 21301, first column, Regulatory Flexibility Certification, line fourteen, "consider" should read "considered".

#### § 170.21 [Corrected]

13. On page 21304, first column, footnote one, line five "a" should appear before "specific"; and in line fourteen, "of" should read "or".

14. On the same page, first column, footnote two, line twenty, "ahs" should read "has".

#### § 170.31 [Corrected]

15. On page 21305, column one, § 170.31, entry 3.B., line seven, "licensees" should read "license"; entry 3.E., line one, "uses" should read "use"; and in entry 3.G., line one "uses" should read "use".

16. On the same page, column two, entry 3.K., line eight, "licensess" should read "licenses".

17. On the same page, column three, entry 5.B. line five, "Licenes" should read "License".

18. On page 21308, column three, footnote 1(d), line sixteen, "in" should appear between "10F," and "which".

19. On the same page, column three, footnote 2, first line, "or" should read "for".

#### § 170.32 [Corrected]

20. On page 21307, § 170.32, column one of the table, entry 2.A., line four, "ion-exchanging" should read "ion-exchange"; also in entry 2.B., line one, "possession" should read "processing".

21. On the same page column four of the table, the eleventh and twelfth entries from the bottom, should appear as one entry read "1 per 7 year per inspection"; entries seven and eight from the bottom should appear as one

entry reading "1 per year per inspection"; and entries three and four from the bottom should appear as one entry reading "1 per 2 years per inspection".

22. On page 21303, first column in the table, entry K, second line, "times" should read "items"; and in entry P, first line, "materiaal" should read "material".

23. On the same page, column four in the table, lines three and four should appear as one entry reading "1 per year per inspection"; lines seven and eight should appear as one entry reading, "1 per 3 years per inspection"; lines nine and ten should appear as one entry reading, "1 per 3 years per inspection"; lines eleven and twelve, should appear as one entry reading, "1 per 3 years per inspection"; lines thirteen and fourteen should appear as one entry reading, "1 per 3 years per inspection"; and lines fifteen and sixteen should appear as one entry reading, "1 per 3 years per inspection".

#### § 170.51 [Corrected]

24. On page 21309, column one, § 170.51, line six, "10 CFR 51.31" should read "10 CFR 15.31".

BILLING CODE 1555-01-M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Social Security Administration

#### 20 CFR Part 404

[Reg. No. 4]

**Federal Old-Age, Survivors, and Disability Insurance; Gender Discrimination; Foreign Work Test; Special Age-72 Benefits; Benefit Reduction for Widows and Widowers; and Acknowledgement of Natural Child**

**AGENCY:** Social Security Administration, HHS.

**ACTION:** Final rule.

**SUMMARY:** The Social Security Administration is amending its regulations to implement certain Title III provisions of Pub. L. 93-21—"The Social Security Amendments of 1933"—that eliminate gender based distinctions in the Social Security Act. We are also making changes to reflect two other Pub. L. 93-21 provisions. One amendment changes the work test for the beneficiary doing non-covered work outside the United States from 7 days in a month to more than 45 hours in a month before losing benefits for that month. The other amendment eliminates

the added benefit reduction that applies when computing benefits for a disabled widow or widower who is entitled to benefits prior to age 60. Additionally, we are amending the regulation on establishing a parent-child relationship for Social Security benefit entitlement purposes between the insured and his or her illegitimate child to expressly reflect a provision of the Social Security Act (the Act). This amendment states the time at which an acknowledgement, court order, or court decree must be made.

**DATE:** These regulations are effective June 12, 1984. We will consider any comments received by August 13, 1984. We will revise and republish these regulations if public comment warrant.

**ADDRESS:** Comments should be submitted to the Acting Commissioner of Social Security, Department of Health and Human Services, P.O. Box 1585, Baltimore, Maryland 21203, or delivered to the Office of Regulations, Social Security Administration, 3-A-3 Operations Building, 6401 Security Boulevard, Baltimore, Maryland 21235, between 8:00 a.m. and 4:30 p.m. on regular business days. Comments may be inspected during these same hours by making arrangements with the contact person shown below.

**FOR FURTHER INFORMATION CONTACT:** C. H. Campbell, Legal Assistant, Office of Regulations, Social Security Administration, 6401 Security Boulevard, Baltimore, Maryland 21235, (301) 597-3408.

**SUPPLEMENTARY INFORMATION:** These regulatory amendments include the provisions of an unrevised section of the Social Security Act (the Act) and sections of the Act revised by the following sections in Pub. L. 98-21:

**1. Sections 303 and 333 of Pub. L. 98-21 and Section 216(h)(3)(C) of the Social Security Act (the Act)**

We are making the following amendments to § 404.355 of the regulations. The first amendment reflects the provisions of section 303 of Pub. L. 98-21 which provide that the kind of evidence establishing an illegitimate child's relationship to a male worker can now be used to establish such a relationship to a female worker. The second amendment reflects the provisions of section 333 of Pub. L. 98-21 which provide for deeming the written acknowledgement, court decree, or court order establishing a child-parent relationship to have occurred on the first day of the month it actually occurred for purposes of the entitlement of an illegitimate child on the earnings record of a disability insurance beneficiary.

The third amendment reflects the present section 216(h)(3)(C) provisions of the Social Security Act (the Act) which provide that the written acknowledgement, court decree, or court order must be made before the death of the insured to establish a child-parent relationship.

**Note.**—This last amendment is being made because the current § 404.355 does not expressly state the time requirement specified in the section 216(h)(3)(C) provisions.

**2. Section 305 of Pub. L. 98-21**

We are amending § 404.383 to provide that where both husband and wife qualify for the special age 72 benefits payable under section 228 of the Act, a full benefit will be paid each spouse. This special benefit can be paid to persons who attained age 72 before 1968 and had no quarters of coverage under Social Security and to persons who attained age 72 in 1968 or later and had at least 3 quarters of coverage for every year after 1966 and before the year of attainment of age 72. In addition, the government offset provision of § 404.384 is amended to reflect this change.

**3. Sections 301(a)(4), 301(a)(7), 301(b)(7) and 307 of Pub. L. 98-21**

We are amending §§ 404.332, 404.341, 404.352 and 404.371 to provide for continuing the benefits of a divorced wife, divorced husband, female childhood disability beneficiary, mother, father, or female parent beneficiary whose spouse's benefits end because the spouse's disability ceased. These amended sections eliminate the provisions that terminated the benefit entitlement of a female (but not a male) parent, or childhood disability beneficiary whose spouse's benefit entitlement terminated due to cessation of disability, and also provide similar protection to persons receiving divorced wife's, divorced husband's, mother's and father's benefits. Also, we further amended § 404.332 to show that wife's (or husband's) benefits may continue despite marriage to someone receiving husband's (or wife's) benefits and § 404.371 to show that a female's parent's benefits may continue despite her marriage to someone receiving husband's benefits.

**4. Section 308 of Pub. L. 98-21**

We are amending § 404.1343 to permit a widower to waive a civil service survivor's annuity and apply his deceased spouse's military service wage credits for any period before 1957 to a Social Security survivor's benefit. Previously, only a widow had this waiver right.

**5. Sections 309(c) and 134 of Pub. L. 98-21**

We are amending §§ 404.410 and 404.421 because section 309(c) of Pub. L. 98-21 provides that a husband's or widower's benefit is not actuarially reduced for any month the person has an entitled child under age 16 in his care. Previously, this rule applied only to persons entitled to wife's or widow's benefits. We also are amending § 404.410 because section 134 of Pub. L. 98-21 eliminates the added benefit reduction factor that was applied against disabled widow's and disabled widower's benefits when benefit entitlement began prior to age 60.

**6. Section 309(d)(1) of Pub. L. 98-21**

We are amending § 404.421 because section 309(d)(1) of Pub. L. 98-21 provides that a person, by filing a certificate of election, can receive actuarially reduced husband's benefits in any month in which he does not have an entitled child in his care. Previously, this right applied only to persons entitled to wife's benefits.

**7. Section 309(d)(2) of Pub. L. 98-21**

We are amending § 404.412 because section 309(d)(2) of Pub. L. 98-21, provides that a beneficiary whose husband's or widower's benefits are reduced because he elected to receive benefits prior to age 65 may have the reduction period adjusted to exclude months that he had the worker's entitled child in his care. Previously, this right applied only to the beneficiary entitled to wife's or widow's benefits.

**8. Sections 309(g) and (h) of Pub. L. 98-21**

We are amending § 404.417 because sections 309(g) and (h) of Pub. L. 98-21 provide for a new foreign work test. Under that test, a beneficiary who is under age 70 and whose benefit eligibility is not based on disability cannot work in noncovered remunerative activity outside the United States in excess of 45 hours in a month without losing his or her benefits for that month. However, the dependents of the insured beneficiary will not have deductions applied against their benefits unless the insured works 7 or more days in that month. We also amended §§ 404.420 and 404.450 to reflect this change in the foreign work test.

We are also amending § 404.421 because of the provisions in section 309(g) under which deductions are imposed on benefits otherwise payable to a husband or a father beneficiary for month(s) in which he does not have the insured's child entitled to child's

benefits "in his care". The current regulation provides only that wife or mother's benefits are subject to benefit deductions for not having a child in care.

#### 9. Section 309(k) of Pub. L. 93-21

We are amending § 404.335 because section 309(k) of Pub. L. 93-21 provides that an individual who had been entitled or potentially entitled to "husband's" benefits in the month before the month of marriage to the worker does not have to meet the 9-month duration of marriage requirement that is otherwise required for widower's benefit entitlement. Previously, only a wife beneficiary requesting widow's benefits was exempted from the 9-month marriage requirement.

#### Regulatory Procedures

We are publishing these regulations as a final rule with a 60-day comment period. We find good cause exists to dispense with notice and public comment procedures in accordance with section 553(b)(B) of the Administrative Procedure Act (5 U.S.C. 553(b)(B)). Prior notice and comment are unnecessary because these changes are technical in nature and the statutory provisions they reflect do not allow for policy discretion in implementation. Furthermore, the statutory provisions became effective no later than May 1983.

#### Executive Order 12291

These regulations have been reviewed under Executive Order 12291 and none of them meet the criteria for a major regulation. These regulations implement statutory provisions and the costs involved are caused by the statutory provisions and not by the regulations.

#### Paperwork Reduction Act

These regulations do not impose any additional reporting or recordkeeping requirements that are subject to OMB clearance. The reporting requirements contained in § 404.450 (a) and (b) already are approved by OMB and the information is collected by use of the form SSA-1435, Reporting Changes that Affect your Social Security Payment (OMB #0960-0073).

#### Regulatory Flexibility Act

We certify that these proposed regulations will not, if promulgated, have a significant economic impact on a substantial number of small entities because they will affect individuals only. Moreover, any impact that these regulations may have is solely the result of legislation rather than these regulations.

(Catalog of Federal Domestic Assistance Programs; No. 13.203 Social Security Retirement Insurance; No. 13.035 Social Security Survivor's Insurance; No. 13.092 Social Security Disability Insurance)

#### List of Subjects in 20 CFR Part 404

Administrative practice and procedure, Death benefits, Disability benefits, Old-age, survivors, and Disability insurance.

Dated: March 9, 1984.

Martha A. McSteen,  
*Acting Commissioner of Social Security.*

Approved: May 14, 1984.

Margaret M. Heckler,  
*Secretary of Health and Human Services.*

#### PART 404—[AMENDED]

Part 404 of Chapter III, title 20, of the Code of Federal Regulations is added to, revised, or amended as follows:

1. The authority citation for Subpart D reads as follows:

Authority: Secs. 202, 205, 210, 223, 225, 233, 1102 of the Social Security Act, 49 Stat. 623, 53 Stat. 1033, 64 Stat. 492, 70 Stat. 615, 64 Stat. 449, 80 Stat. 67, 49 Stat. 637; Sec. 5, Reorganization Plan No. 1 of 1953, 67 Stat. 631; 42 U.S.C. 402, 405, 410, 423, 425, 423, and 1302; and 5 U.S.C. Appendix.

2. In § 404.332, paragraph (b)(3) is revised to read as follows:

§ 404.332 When wife's and husband's benefits begin and end.

\* \* \*

(b) \* \* \*

(3) You are the divorced wife or divorced husband and you remarry. However, your benefits will not end if your remarriage is to someone entitled to benefits as a wife, husband, widow, widower, father, mother, parent, or disabled child.

\* \* \*

3. In § 404.335, paragraph (a)(4) is revised to read as follows:

§ 404.335 Who is entitled to widow's or widower's benefits.

\* \* \*

(a) \* \* \*

(4) In the month before you married the insured, you were entitled to or, if you had applied and had been old enough, could have been entitled to any of these benefits or payments: widow's, widower's, father's, mother's, wife's, husband's, parent's, or disabled child's benefits; or annuity payments under the Railroad Retirement Act for widows, widowers, parents, or children age 18 or older;

\* \* \*

4. In § 404.341, paragraph (b)(3) is revised to read as follows:

§ 404.341 When mother's and father's benefits begin and end.

\* \* \*

(b) \* \* \*

(3) *You remarry.* Your benefits will not end, however, if you marry someone entitled to old-age, disability, wife's, husband's, widow's, widower's, father's, mother's, parent's or disabled child's benefits.

\* \* \*

5. In § 404.352, paragraph (b)(2) is revised to read as follows:

§ 404.352 When child's benefits begin and end.

\* \* \*

(b) \* \* \*

(2) *You marry.* Your benefits will not end, however, if you are age 18 or older, disabled, and you marry a person entitled to child's benefits based on disability or person entitled to old-age, divorced wife's, divorced husband's, widow's, widower's, mother's, father's, parent's, or disability benefits.

\* \* \*

6. Section 404.355, is amended by revising paragraphs (c) and (d) to read as follows:

§ 404.355 Who is the insured's natural child.

\* \* \*

(c) You are the insured's natural child and your mother or father has not married the insured, but the insured has either acknowledged in writing that you are his or her child, been decreed by a court to be your father or mother, or been ordered by a court to contribute to your support because you are his or her child. In the case where the insured is deceased, the acknowledgement, court decree, or court order must have been made before his or her death. For purposes of determining whether the conditions of entitlement are met throughout the first month as stated in § 404.352(a), the written acknowledgement, court decree, or court order will be considered to have occurred on the first day of the month in which it actually occurred.

(d) Your mother or father has not married the insured but you have evidence other than the evidence described in paragraph (c) of this section to show that the insured is your natural father or mother. Additionally, you must have evidence to show that the insured was either living with you or contributing to your support at the time you applied for benefits. See § 404.386 for an explanation of the terms "living with" and "contributing to your support". If the insured is not alive at the time of your application you must

have evidence to show that the insured was either living with you or contributing to your support when he or she died.

7. In § 404.371, paragraph (b)(2) is revised to read as follows:

§ 404.371 When parent's benefits begin and end.

\* \* \* \* \*

(b) \* \* \*

(2) You marry, unless your marriage is to someone entitled to wife's, husband's, widow's, widower's, mother's, father's, parent's or disabled child's benefits. If you marry a person entitled to these benefits, the marriage does not affect your benefits.

\* \* \* \* \*

8. Section 404.383 is revised to read as follows:

§ 404.383 Special age 72 payment amounts.

(a) *Payment from May 1983 on.* If you are entitled to special age 72 payments from May 1983 on, you will receive a monthly payment of \$125.60. If your spouse is also entitled to special age 72 payments, he or she will also receive \$125.60. This amount, first payable for June 1982, will be increased when "cost-of-living" adjustments of Social Security benefits occur. This special payment may be reduced, suspended or not paid at all as explained in § 404.384.

(b) *Payment prior to May 1983.* If a husband or a single individual is entitled to special age 72 payments for months prior to May 1983, the amount payable was \$125.60 for the months since June 1982. The wife received an amount approximately one-half the husband's amount (i.e., \$63.00 for months in the period June 1982-April 1983).

9. In § 404.384, paragraph (d) is revised to read as follows:

§ 404.384 Reductions, suspensions, and nonpayments of special age 72 payments.

\* \* \* \* \*

(d) *Amount of reduction because of a government pension.* If you are eligible for a government pension, the amount of the pension will be subtracted from your special age 72 payment. If your spouse is eligible for a government pension but is not entitled to the special payment, your special payment is reduced (after any reduction due to your own government pension) by the difference between the pension amount and the full special payment amount. If both you and your spouse are entitled to the special payment, each spouse's payment is first reduced by the amount of his or her own government pension (if any). Then, the wife's special payment is reduced by the amount that the husband's government

pension exceeds the full special payment. The husband's special payment is also reduced by the amount that the wife's government pension exceeds the full special payment.

\* \* \* \* \*

10. The authority citation for Subpart E to Part 404 reads as follows:

Authority: Secs. 205, 207, and 1102, 53 Stat. 1368, as amended, 79 Stat. 379, as amended, 49 Stat. 647, as amended; sec. 5 of Reorganization Plan No. 1 of 1953, 67 Stat. 18; 42 U.S.C. 405, 427, 1302.

11. Section 404.410 is revised to read as follows:

§ 404.410 Reduction in benefits for age—general.

An individual's old-age insurance benefit, wife's or husband's benefit or widow's or widower's benefit is reduced if he or she is entitled to the benefit for a month before the month he or she reaches retirement age. For purposes of this section and §§ 404.411–404.413, retirement age is age 65; except that for months prior to January 1973, retirement age for widows and widowers is age 62. However, in the case of an individual entitled to wife's or husband's benefits, there is no reduction in benefits for any month he or she has in his or her care a child of the insured individual on whose earnings record he or she is entitled if the child is entitled to child's insurance benefits. Similarly, in the case of an individual entitled to widow's or widower's benefits, such benefits will not be reduced below the amount an individual entitled to mother's or father's benefits would receive for any month he or she has in his or her care a child of the insured individual on whose earnings record he or she is entitled if the child is entitled to child's benefits. Reductions in benefits are, subject to §§ 404.411–404.413, made in the amounts described below:

(a) In the case of old-age insurance benefits, the individual's primary insurance amount is reduced by  $\frac{1}{2}\%$  of 1 percent multiplied by the number of months preceding the month in which he or she attains retirement age for which he or she is entitled to such benefits;

(b) In the case of wife's or husband's benefits, the individual's benefit amount before any reduction (see § 404.304 and § 404.333) is reduced first (if necessary) for the family maximum under § 404.403, and then further reduced by  $\frac{2}{3}\%$  of 1 percent multiplied by the number of months preceding the month in which he or she attains retirement age for which he or she is entitled to such benefits (but not including any month in which such wife or husband has in his or her care a child of the insured individual on whose

earnings record he or she is entitled if the child is entitled to child's benefits);

(c)(1) In the case of widow's or widower's benefits, the individual's benefit amount (for months after December 1972, the amount equal to the insured person's primary insurance amount and for earlier months, the amounts described in §§ 404.304 and 404.338), after any reduction for the family maximum under § 404.403, is reduced or further reduced by  $\frac{1}{4}\%$  of 1 percent multiplied by the number of months in the period beginning with the month of attainment of age 60 and ending with the month immediately before the month of attainment of age 65, for which he or she is entitled to such benefits (but not including any month in which such widow or widower has a child of the insured individual in his or her care if the child is entitled to child's benefits). For months prior to January 1973, the widow's or widower's benefit is reduced in the way described in the preceding sentence except that the percentage rate is  $\frac{1}{2}\%$  of 1 percent multiplied by the number of months from age 60 to 62 instead of  $\frac{1}{4}\%$  of 1 percent multiplied by the number of months from age 60 to 65.

(2) For those widows and widowers receiving benefits based on disability and whose entitlement begins prior to their attaining age 60, their benefits are—

(i) For months after December 1983, not subject to any reduction of their benefits in addition to that under paragraph (c)(1) of this section;

(ii) For the period January 1, 1973–December 31, 1983, subject to a reduction under paragraph (c)(1) of this section and an additional reduction formula of  $\frac{4}{3}\%$  of 1 percent multiplied by: (A) The benefit before any reduction for age and (B) the number of months of entitlement to such benefit in the period beginning with month of attainment of age 50 and ending with the month preceding month of attainment of age 60; and

(iii) For months prior to January 1973, subject to the reduction formula described in paragraph (c)(2)(ii) of this section with, however, the percentage rate set at  $\frac{4}{3}\%$  of 1 percent.

(d) Benefits reduced under this section may be later adjusted to eliminate reduction for certain months of entitlement prior to retirement age as provided in § 404.412. For special provisions on reducing benefits for months prior to retirement age involving entitlement to two or more benefits and for reducing widow's and widower's benefits on the earnings record of a deceased individual previously entitled



to old-age insurance benefits, see §§ 404.411 and 404.338, respectively.

12. In § 404.412, paragraphs (a)(2) and (a)(4) are revised to read as follows:

§ 404.412 Adjustments in benefit reductions for age.

(a) \* \* \*

(2) In the case of wife's or husband's insurance benefits, any month in which she or he had a child of the insured individual in her or his care and for which the child was entitled to child's benefits;

\* \* \* \* \*

(4) In the case of widow's or widower's insurance benefits, any month in which she or he had in her or his care a child of the deceased insured individual and for which the child was entitled to child's benefits;

\* \* \* \* \*

13. Section 404.417 is revised to read as follows:

§ 404.417 Deductions because of noncovered remunerative activity outside the United States; 45 hour and 7-day work test.

(a) *Deductions because of individual's activity.*—(1) *Prior to May 1983.* For months prior to May 1983, a 7-day work test applies in a month before benefit deductions are made for noncovered remunerative activity outside the United States. A deduction is made from any monthly benefit (except disability insurance benefits, child's insurance benefits based on the child's disability, or widow's or widower's insurance benefits based on the widow's or widower's disability) payable to an individual for each month in a taxable year beginning after December 1954 in which the beneficiary, while under age 72 (age 70 after December 1982), engages in noncovered remunerative activity (see § 404.418) outside the United States on 7 or more different calendar days. The deduction is for an amount equal to the benefit payable to the individual for that month.

(2) *From May 1983 on.* Effective May 1983, a 45-hour work test applies before a benefit deduction is made for the noncovered remunerative activity performed outside the United States in a month by the type of beneficiary described in paragraph (a)(1) of this section.

(b) *Deductions from benefits because of earnings or work of an insured individual.* A deduction is made for a month from any wife's, husband's, or child's insurance benefit payable (or deemed payable—see § 404.420) on the insured individual's earnings record if the insured individual is entitled to old-age benefits and worked 7 or more days

in that month. This rule applies both before and after May 1983. This deduction is an amount equal to any such wife's, husband's, or child's benefit.

14. Section 404.420 is revised to read as follows:

§ 404.420 Persons deemed entitled to benefits based on an individual's earnings record.

For purposes of imposing deductions under the annual earnings test (see § 404.415) and the foreign work test (see § 404.417), a person who is married to an old-age insurance beneficiary and who is entitled to a mother's or father's insurance benefit or a child's insurance benefit based on the child's disability (and all these benefits are based on the earnings record of some third person) is deemed entitled to such benefit based on the earnings record of the old-age insurance beneficiary to whom he or she is married. This section is effective for months in any taxable year of the old-age insurance beneficiary that begins after August 1958.

15. Section 404.421 is amended by revising the introductory test, and paragraphs (a) through (c) to read as follows:

§ 404.421 Deductions because beneficiary failed to have a child in his or her care.

Deductions for failure to have a child in care (as defined in Subpart D of this part) are made as follows:

(a) *Wife's or husband's insurance benefits.* A deduction is made from the wife's or husband's insurance benefit to which he or she is entitled for any month if he or she is under age 65 and does not have in his or her care a child of the insured entitled to a child's insurance benefit. However, a deduction is not made for any month in which he or she is age 62 or over, but under age 65, and there is in effect a certificate of election for him or her to receive an actuarially reduced wife's or husband's insurance benefit for such month (see Subpart D of this part).

(b) *Mother's or father's insurance benefits.*—(1) *Widow or widower.* A deduction is made from the mother's or father's insurance benefit to which he or she is entitled as the widow or widower (see Subpart D of this part) of the deceased individual upon whose earnings such benefit is based, for any month in which he or she does not have in his or her care a child who is entitled to a child's insurance benefit based on the earnings of the deceased insured individual.

(2) *Surviving divorced mother or father.* A deduction is made from the mother's or father's insurance benefit to

which he or she is entitled as the surviving divorced mother or father (see Subpart D of this part) of the deceased individual upon whose earnings record such benefit is based, for any month in which she or he does not have in care a child of the deceased individual who is her or his son, daughter, or legally adopted child and who is entitled to a child's insurance benefit based on the earnings of the deceased insured individual.

(c) *Amount to be deducted.* The amount deducted from the benefit, as described in paragraphs (a) and (b) of this section, is equal to the amount of the benefit which is otherwise payable for the month in which she or he does not have a child in his or her care.

\* \* \* \* \*

16. In § 404.450, paragraphs (a) and (b) are revised to read as follows:

§ 404.450 Required reports of work outside the United States or failure to have care of a child.

(a) *Beneficiary engaged in noncovered remunerative activity; report by beneficiary.* Any individual entitled to a benefit which is subject to a deduction in that month because of noncovered remunerative activity outside the United States (see § 404.417) shall report the occurrence of such an event to the Social Security Administration before the receipt and acceptance of a benefit for the second month following the month in which such event occurred.

(b) *Beneficiary receiving wife's, husband's, mother's or father's insurance benefits does not have care of a child; report by beneficiary.* Any person receiving wife's, husband's, mother's, or father's insurance benefits which are subject to a deduction (as described in § 404.421) because he or she did not have a child in his or her care shall report the occurrence of such an event to the Social Security Administration before the receipt and acceptance of a benefit for the second month following the month in which the deduction event occurred.

\* \* \* \* \*

17. The authority citation for Subpart N to Part 404 reads as follows:

Authority: Secs. 205, 210, 217, 223, and 1102 of the Social Security Act, as amended, 53 Stat. 1393, as amended, 64 Stat. 424, 64 Stat. 512, as amended, 61 Stat. 833 as amended, 49 Stat. 647 as amended; 42 U.S.C. 435, 410, 417, 423, and 1392.

18. Section 404.1343 is amended by revising paragraph (b) to read as follows:

§ 404.1343 When the limits on granting World War II and post-World War II wage credits do not apply.

(b) If you are the surviving spouse or child of a veteran of the World War II period or post-World War II period and you are entitled under the Civil Service Retirement Act of 1930 to a survivor's annuity based on the veteran's active service and—

(1) You give up your right to receive the survivor's annuity;

(2) A benefit under the Civil Service Retirement Act of 1930 based on the veteran's active service was not payable to the veteran; and

(3) Another Federal benefit is not payable to the veteran or his or her survivors except as described in paragraph (c) of this section; or

[FR Doc. 84-15698 Filed 6-11-84; 8:45 am]

BILLING CODE 4190-11-M

## Food and Drug Administration

### 21 CFR Parts 100, 182, and 184

[Docket No. 83N-0211]

#### GRAS Status of Copper Gluconate, Copper Sulfate, Cuprous Iodide, and Peptonized Copper

AGENCY: Food and Drug Administration.

ACTION: Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is affirming that copper gluconate, copper sulfate, and cuprous iodide are generally recognized as safe (GRAS) as direct human food ingredients. In addition, the agency finds that peptonized copper is not GRAS. The safety of these ingredients has been evaluated under the comprehensive safety review conducted by the agency.

**DATES:** Effective July 12, 1984. The Director of the Federal Register approves the incorporation by reference of certain publications at 21 CFR 184.1260 effective on July 12, 1984.

**FOR FURTHER INFORMATION CONTACT:** Robert Leo Martin, Center for Food Safety and Applied Nutrition (formerly Bureau of Foods) (HFF-335), Food and Drug Administration, 200 C St. SW., Washington, D.C. 20204, 202-426-8950.

**SUPPLEMENTARY INFORMATION:** In the Federal Register of February 1, 1984 (49 FR 4008), FDA published a proposal to affirm that copper gluconate, copper sulfate, and cuprous iodide are GRAS for use as direct human food ingredients and to find that peptonized copper is not GRAS. The proposal was published in accordance with the announced FDA

review of the safety of GRAS and prior-sanctioned food ingredients.

In accordance with § 170.35 (21 CFR 170.35), copies of the scientific literature review and the report of the Select Committee on GRAS Substances (the Select Committee) on copper gluconate, copper sulfate, and cuprous iodide are available for public review in the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857. Copies of these documents also are available for public purchase from the National Technical Information Service, as announced in the proposal.

In addition to proposing to affirm the GRAS status of copper gluconate, copper sulfate, and cuprous iodide, FDA gave public notice that it was unaware of any prior-sanctioned food ingredient use for these ingredients or for peptonized copper other than the proposed conditions of use. Persons asserting additional or extended use in accordance with approvals granted by the U.S. Department of Agriculture or FDA before September 8, 1958, were given notice to submit proof of those sanctions, so that the safety of any prior-sanctioned uses could be determined. That notice was also an opportunity to have prior-sanctioned uses of copper gluconate, copper sulfate, cuprous iodide, and peptonized copper recognized by issuance of an appropriate regulation under Part 181—Prior-Sanctioned Food Ingredients (21 CFR Part 181) or affirmed as GRAS under Part 184 or 186 (21 CFR Part 184 or 186), as appropriate.

FDA also gave notice that failure to submit proof of an applicable prior sanction in response to the proposal would constitute a waiver of the right to assert that sanction at any future time.

No reports of prior-sanctioned uses for copper gluconate, copper sulfate, cuprous iodide, or peptonized copper were submitted in response to the proposal. Therefore, in accordance with the proposal, any right to assert a prior sanction for use of copper gluconate, copper sulfate, cuprous iodide, or peptonized copper under conditions different from those set forth in this final rule has been waived.

One comment, from a user of copper salts, was received in response to the agency's proposal. The comment was in agreement with FDA's intent to affirm as GRAS copper gluconate, copper sulfate, and cuprous iodide.

The agency acknowledges this comment. Because this comment essentially agrees with FDA, no changes are being made in the final rule as a result of this comment. The agency is therefore issuing the proposed

regulations, with minor editorial changes, as a final rule. FDA also finds, for the reasons set forth in the proposal (49 FR 4011) that peptonized copper is not GRAS.

In the proposal, FDA stated that it would work with the Committee on Food Chemicals Codex of the National Academy of Sciences to develop acceptable specifications for copper sulfate and cuprous iodide used as direct human food ingredients and would incorporate those specifications into the regulations on these substances when they were developed. To date, however, work on the specifications is still incomplete. Until the specifications are developed, copper sulfate and cuprous iodide for direct food uses must comply with the descriptions in 21 CFR 184.1261 and 184.1265, respectively, and be of food-grade purity (21 CFR 184.1(b)(3) and 170.30(h)(1)).

The agency has previously determined under 21 CFR 25.24(d)(6) (proposed December 11, 1979; 44 FR 71742) that this action is of a type that does not individually or cumulatively have a significant impact on the human environment. FDA has not received any new information or comments that would alter its previous determination.

In accordance with the Regulatory Flexibility Act, the agency previously considered the potential effects that this rule would have on small entities, including small businesses. In accordance with section 605(b) of the Regulatory Flexibility Act, the agency has determined that no significant impact on a substantial number of small entities would derive from this action. FDA has not received any new information or comments that would alter its previous determination.

In accordance with Executive Order 12291, FDA has previously analyzed the potential economic effects of this final rule. As announced in the proposal, the agency has determined that the rule is not a major rule as determined by the Order. The agency has not received any new information or comments that would alter its previous determination.

The agency's findings of no major economic impact and no significant impact on a substantial number of small entities, and the evidence supporting these findings, are contained in a threshold assessment which may be seen in the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.



**List of Subjects****21 CFR Part 100**

Administrative practice and procedure, Food labeling, Foods.

**21 CFR Part 182**

Generally recognized as safe (GRAS) food ingredients, Spices and flavorings.

**21 CFR Part 184**

Direct food ingredients, Food ingredients, Generally recognized as safe (GRAS) food ingredients, Incorporation by reference.

Therefore, under the Federal Food, Drug, and Cosmetic Act (secs. 201(s), 409, 701(a), 52 Stat. 1055, 72 Stat. 1784-1788 as amended (21 U.S.C. 321(s), 348, 371(a))) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10), Parts 100, 182, and 184 are amended as follows:

**PART 100—GENERAL****§ 100.155 [Amended]**

1. Part 100 is amended in § 100.155 *Salt and iodized salt* in paragraph (a) by revising "182.5265" to read "184.1265".

**PART 182—SUBSTANCES GENERALLY RECOGNIZED AS SAFE**

2. Part 182 is amended:

**§ 182.90 [Amended]**

a. In § 182.90 *Substances migrating to food from paper and paperboard products* by removing "Copper sulfate" from the list of substances.

b. By revising § 182.5260, to read as follows:

**§ 182.5260 Copper gluconate.**

(a) *Product.* Copper gluconate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with current good manufacturing practice.

**§§ 182.5265, 182.8260, 182.8265 [Removed]**

c. By removing § 182.5265 *Cuprous iodide*, § 182.8260 *Copper gluconate*, and § 182.8265 *Cuprous iodide*.

**PART 184—DIRECT FOOD SUBSTANCES AFFIRMED AS GENERALLY RECOGNIZED AS SAFE**

3. Part 184 is amended:

a. By adding new § 184.1260, to read as follows:

**§ 184.1260 Copper gluconate.**

(a) Copper gluconate (cupric gluconate [ $\text{CH}_2\text{OH}(\text{CHOH})_4\text{COO}$ ] $_2\text{Cu}$ , CAS Reg. No. 527-09-3) is a substance that occurs as light blue to bluish-green, odorless crystals, or as a fine, light blue powder.

It is prepared by the reaction of gluconic acid solutions with cupric oxide or basic cupric carbonate.

(b) The ingredient meets the specifications of the Food Chemicals Codex, 3d Ed. (1981), p. 90, which is incorporated by reference. Copies are available from the National Academy Press, 2101 Constitution Ave. NW., Washington, DC. 20418, or available for inspection at the Office of the Federal Register, 1100 L St. NW., Washington, DC. 20408.

(c) In accordance with § 184.1(b)(1), the ingredient is used in food with no limitation other than current good manufacturing practice. The affirmation of this ingredient as generally recognized as safe (GRAS) as a direct human food ingredient is based upon the following current good manufacturing practice conditions of use:

(1) The ingredient is used as a nutrient supplement as defined in § 170.3(o)(20) of this chapter and as a synergist as defined in § 170.3(o)(31) of this chapter.

(2) The ingredient is used in food at levels not to exceed current good manufacturing practice. Copper gluconate may be used in infant formula in accordance with section 412(g) of the Federal Food, Drug, and Cosmetic Act (the act) or with regulations promulgated under section 412(a)(2) of the act.

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

b. By adding new § 184.1261, to read as follows:

**§ 184.1261 Copper sulfate.**

(a) Copper sulfate (cupric sulfate,  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ , CAS Reg. No. 7758-98-7) usually is used in the pentahydrate form. This form occurs as large, deep blue or ultramarine, triclinic crystals; as blue granules, or as a light blue powder. The ingredient is prepared by the reaction of sulfuric acid with cupric oxide or with copper metal.

(b) FDA is developing food-grade specifications for copper sulfate in cooperation with the National Academy of Sciences. In the interim, this ingredient must be of a purity suitable for its intended use.

(c) In accordance with § 184.1(b)(1), the ingredient is used in food with no limitation other than current good manufacturing practice. The affirmation of this ingredient as generally recognized as safe (GRAS) as a direct human food ingredient is based upon the following current good manufacturing practice conditions of use:

(1) The ingredient is used as a nutrient supplement as defined in § 170.3(o)(20)

of this chapter and as a processing aid as defined in § 170.3(o)(24) of this chapter.

(2) The ingredient is used in food at levels not to exceed current good manufacturing practice. Copper sulfate may be used in infant formula in accordance with section 412(g) of the Federal Food, Drug, and Cosmetic Act (the act) or with regulations promulgated under section 412(a)(2) of the act.

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

c. By adding new § 184.1265, to read as follows:

**§ 184.1265 Cuprous iodide.**

(a) Cuprous iodide (copper (I) iodide,  $\text{CuI}$ , CAS Reg. No. 7681-85-4) is a pure white crystalline powder. It is prepared by the reaction of copper sulfate with potassium iodide under slightly acidic conditions.

(b) FDA is developing food-grade specifications for cuprous iodide in cooperation with the National Academy of Sciences. In the interim, this ingredient must be of a purity suitable for its intended use.

(c) In accordance with § 184.1(b)(2), the ingredient is used in food only within the following specific limitations:

Category of food	Maximum treatment level in food	Functional use
Table salt	0.01 percent	Source of dietary iodine.

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

**Effective date.** This regulation is effective July 12, 1984.

(Secs. 201(s), 409, 701(a), 52 Stat. 1055, 72 Stat. 1784-1788 as amended (21 U.S.C. 321(s), 348, 371(a)))

Dated: May 25, 1984.

William F. Randolph,  
Acting Associate Commissioner for  
Regulatory Affairs.

[FR Doc. 84-11265 Filed 6-11-84; 8:45 am]  
BILLING CODE 4120-01-M

**21 CFR Part 558****New Animal Drugs for Use in Animal Feeds; Tylosin**

**AGENCY:** Food and Drug Administration.  
**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is amending the

animal drug regulations to reflect approval of a supplemental new animal drug application (NADA) filed for Golden Sun Feeds, Inc., providing for manufacturing a 40-gram-per-pound tylosin premix. The premix is used to make finished feeds for swine, beef cattle, and chickens.

**EFFECTIVE DATE:** June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:**

Benjamin A. Puyot, Center for Veterinary Medicine (formerly Bureau of Veterinary Medicine) (HFV-130), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-3410.

**SUPPLEMENTARY INFORMATION:** Golden Sun Feeds, Inc., 111 South Fifth St., Estherville, IA 51334, is sponsor of a supplement to NADA 97-567 submitted on its behalf by Elanco Products Co. This supplement provides for the manufacture of a 40-gram-per-pound premix subsequently used to make finished feeds for swine, beef cattle, and chickens for use as in 21 CFR 558.625(f)(1) (i) through (vi). The supplement is approved and the regulations are amended to reflect the approval. The basis for approval is discussed in the freedom of information summary.

In accordance with the freedom of information provisions of Part 20 (21 CFR Part 20) and § 514.11(e)(2)(ii) (21 CFR 514.11(e)(2)(11)), a summary of safety and effectiveness data and information submitted to support approval of this application may be seen in the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857, from 9 a.m. to 4 p.m., Monday through Friday.

The Center for Veterinary Medicine has determined pursuant to 21 CFR 25.24(d)(1)(i) (proposed December 11, 1979; 44 FR 71742) that this action is of a type that does not individually or cumulatively have a significant impact on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

**List of Subjects in 21 CFR Part 558**

Animal drugs, Animal feeds.

Therefore, under the Federal Food, Drug, and Cosmetic Act (sec. 512(i), 82 Stat. 347 (21 U.S.C. 360b(i))) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Center for Veterinary Medicine (21 CFR 5.83), Part 558 is amended in § 558.625 by revising paragraph (b)(17) to read as follows:

**PART 558—NEW ANIMAL DRUGS FOR USE IN ANIMAL FEEDS**

**§ 558.625 Tylosin.**

\* \* \* \* \*

(b) \* \* \*

(17) To 021780: 0.8 and 10 grams per pound, paragraph (f)(1)(vi)(a) of this section; 40 grams per pound, paragraph (f)(1) (i) through (vi) of this section.

\* \* \* \* \*

*Effective date.* June 12, 1984.

(Sec. 512(i), 82 Stat. 347 (21 U.S.C. 360b(i)))

Dated: June 1, 1984.

Marvin A. Norcross,

Acting Associate Director for Scientific Evaluation.

[FR Doc. 84-15624 Filed 6-11-84; 8:45 am]

BILLING CODE 4160-01-M

**21 CFR Part 558**

**New Animal Drugs for Use in Animal Feeds; Bacitracin Zinc, Amprolium and Ethopabate**

**AGENCY:** Food and Drug Administration.

**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is amending the animal drug regulations to reflect approval of a new animal drug application (NADA) filed by International Minerals & Chemical Corp., providing for use of bacitracin zinc and amprolium plus ethopabate premixes to manufacture complete chicken feeds used as an aid in the prevention of coccidiosis and for improved feed efficiency.

**EFFECTIVE DATE:** June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:**

Lonnie W. Luther, Center for Veterinary Medicine (formerly Bureau of Veterinary Medicine) (HFV-128), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-4317.

**SUPPLEMENTARY INFORMATION:**

International Minerals & Chemical Corp., P.O. Box 207, Terre Haute, IN 47808, filed NADA 114-794 providing for use of premixes containing either 10, 25, 40, or 50 grams of bacitracin (as bacitracin zinc) per pound with a premix containing 25 percent (113.5 grams per pound) amprolium and 8 percent (36.3 grams per pound) ethopabate to manufacture a complete feed containing

4 to 50 grams of bacitracin per ton of feed, 0.0125 percent (113.5 grams per ton) amprolium, and 0.004 percent (36.3 grams per ton) ethopabate for broilers. The medicated feed is used as an aid in the prevention of coccidiosis and for improved feed efficiency. The NADA is approved and the regulations are amended to reflect the approval. The basis for approval is discussed in the freedom of information summary.

In accordance with the freedom of information provisions of Part 20 (21 CFR Part 20) and § 514.11(e)(2)(ii) (21 CFR 514.11(e)(2)(ii)), a summary of safety and effectiveness data and information submitted to support approval of this application may be seen in the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857, from 9 a.m. to 4 p.m., Monday through Friday.

The Center for Veterinary Medicine has determined pursuant to 21 CFR 25.24(d)(1)(ii) (proposed December 11, 1979; 44 FR 71742) that this action is of a type that does not individually or cumulatively have a significant impact on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

**List of Subjects in 21 CFR Part 558**

Animal drugs, Animal feeds.

Therefore, under the Federal Food, Drug, and Cosmetic Act (sec. 512(i), 82 Stat. 347 (21 U.S.C. 360b(i))) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Center for Veterinary Medicine (21 CFR 5.83), § 558.58 is amended in the table in paragraph (e)(1), item (iii), in the entry for "Bacitracin 4 to 50" by redesignating the existing text under "Indications for use" as "1." and by adding a new entry and corresponding entries under "Limitations" and "Sponsor", to read as follows:

**PART 558—NEW ANIMAL DRUGS FOR USE IN ANIMAL FEEDS**

**§ 558.58 Amprolium and ethopabate.**

\* \* \* \* \*

(e) \* \* \*

(1) \* \* \*

Amprolium and ethopabate in grams per ton	Combination in grams per ton	Indications for use	Limitations	Sponsor
(iii) Amprolium 113.5 (0.0125%) and ethopa- bate 36.3 (0.004%).	...	...	...	...
	Bacitracin 4 to 50.....	1. ...	...	...

Amprolium and ethopabate in grams per ton	Combination in grams per ton	Indications for use	Limitations	Spacer
		2. Broiler chickens, as an aid in prevention of coccidiosis where severe exposure to coccidiosis from <i>Eimeria acervulina</i> , <i>E. maxima</i> , and <i>E. brun-cati</i> is likely to occur; improved feed efficiency.	Not for chickens over 16 weeks of age; do not feed to laying chickens; as sole source of amprolium; not for use as a treatment for coccidiosis; bacterium and as provided by No. 012703 in §510.012(c) of this chapter; feed as the sole ration from the time chickens are placed on feed until market weight; combination as provided by No. 012703.	012703

Effective date June 12, 1984.

(Sec. 512(i), 82 Stat. 347 (21 U.S.C. 360b(i)))

Dated: June 5, 1984.

Lester M. Crawford,  
Director, Center for Veterinary Medicine.

[FR Doc. 15623 Filed 6-11-84; 8:45 am]

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## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for  
Housing—Federal Housing  
Commissioner

### 24 CFR Part 200

[Docket No. R-84-1102; FR-1404]

#### Use of Materials Bulletin No. 59b HUD Building Products Standards and Certification Program for Wood Window Units and Wood Sliding Patio Doors

AGENCY: Assistant Secretary for  
Housing—Federal Housing  
Commissioner, HUD.

ACTION: Final rule.

**SUMMARY:** This rule adopts, as a part of HUD's Minimum Property Standards (MPS), a Use of Materials Bulletin (UM) that incorporates certain standards issued by the American National Standards Institute, Inc., National Wood Manufacturers Association (ANSI/NWMA) for the manufacture of wood window units and wood sliding patio doors. The rule, identified as UM 59b, also supplements HUD's building products certification procedures by requiring, for this particular certification program, that certain additional information be included in the label which each manufacturer affixes to the certified product. The rule also specifies the frequency with which wood window units and wood sliding patio doors must be tested in order to be acceptable under the MPS program.

UM 59b revises and supersedes existing UM 59a. UM 59a required the labeling of wood windows to certify their compliance with a standard of the National Woodwork Manufacturers Association, Industrial Standard (I.S.) No. 2. This rule revises UM 59a in the following ways. First, it updates standards for wood window units. This is being done in order to reference a recently revised ANSI/NWMA standard. Second, it specifies testing and labeling requirements for both wood window units and wood sliding patio doors. These requirements are necessary to determine whether the products comply with the referenced standards. Third, it adopts, for the first time, standards which are applicable to wood sliding patio doors. This action is being taken to assure that substandard wood sliding patio doors are not used in structures insured under the National Housing Act. Other types of doors are already covered by Use of Material Bulletins (see e.g. UM 39a, Aluminum Windows and Sliding Patio Doors, 49 FR 376).

**EFFECTIVE DATE:** August 6, 1984.

**FOR FURTHER INFORMATION CONTACT:** Mr. Leslie H. Breden, Technical Support Branch, Office of Manufactured Housing and Regulatory Functions, Room 3222, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, D.C. 20410; telephone (202) 755-5929. (This is not a toll-free number.)

**SUPPLEMENTARY INFORMATION:** Section 521 of the National Housing Act, 12 U.S.C. 1735e, authorizes the Secretary of Housing and Urban Development to "adopt a uniform procedure for the

acceptance of material and products to be used in structures approved for mortgages or loans" insured under the Act. The section further provides that those materials or products found by the Secretary to be "technically suitable for the use proposed shall be accepted." In accordance with this authority, the Department is now promulgating a final rule which: (1) Incorporates certain standards issued by the American National Standards Institute/National Woodwork Manufacturers Association (ANSI/NWMA) relating to the design, assembly and testing of wood window units and wood sliding patio doors; (2) requires that certain information be included in a label affixed to each certified product; and (3) requires that samples of the product be tested at specified intervals for compliance with the applicable standards.

The Department has established, at 24 CFR 200.935, regulations which govern certification programs. This final rule adds requirements which are applicable to certification programs involving wood window units and wood sliding patio doors only. These additional requirements are set forth in a new § 200.939.

On August 5, 1983, the Department published, at 48 FR 35668, a proposed rule. In response to the proposed rule, the Department received three comments: one from a laboratory, one from an industry association, and one from a window manufacturer. Two of the commenters supported the rule with minor adjustments, and one, the window manufacturer, opposed the rule. These comments have been taken into account in the preparation of this final rule. Changes incorporated into the final rule and significant comments on the rule received by the Department are discussed below:

#### Changes to the Rule and Comments, if any, Prompting Those Changes

1. Section 200.939(a)(1). Two changes of a technical nature were made. First, the identification number of the ANSI/NWMA standard for wood sliding patio doors was incorrectly listed in the proposed rule as I.S. "3-80." It has been changed in the final rule to reflect the correct identification number, I.S. 3-70. Second, each ANSI/NWMA standard has been labeled as a separate subdivision of § 200.939(a)(1). This was done to provide for easier identification of the different standards.

2. Section 200.939(b)(1). This final rule contains certification labeling requirements. It requires the manufacturer's name and a code identifying the plant location, and

manufacturer's certification of compliance with the applicable standard, on the certification label. The proposed rule would have required the specification designation and manufacturer series or model number as well. It was amended in response to comments that the rule required excessive information on the certification label. The commenters were concerned about the cost and size of the label. By eliminating this information from the label, the final rule will reduce the size and cost of the label. Under § 200.935(d)(6), moreover, the certification may be coded. The use of a code to convey this information would further reduce the size of the label. The remaining information required by the rule is necessary to provide adequate identifying information and to accomplish the purposes of the MPS program.

3. *Section 200.939(b)(2)*. Section 200.939(b)(2) requires that a certification label be affixed to each product. Several changes were made in the final rule to accommodate concerns raised by the comments.

Several commenters were opposed to the requirement that the label be "permanently" affixed to each product. Questions were raised about the cost and feasibility of achieving permanency. In response to these concerns, the Department eliminated the requirement of permanency. The section now requires only that the label be "affixed" to each product.

Questions were also raised about where such a label would be placed. As a result, language has been added to the section to clarify where the label may be placed. In response to concerns raised by one of the commenters that the label might have to be placed on the glass portion of the products, the section has been amended to provide that a "visible, exposed location is not required." However, the section has also been amended to require that the label be located so that it is "available for future identification."

4. *Section 200.939(c)(1)*. Several changes were incorporated into this section of the rule. First, the following relatively minor changes were made to clarify the language contained in § 200.939(c)(1):

1. The term "once" has been added to the phrase "at least every four years" to clarify the frequency of testing requirement.

2. The phrase "beginning with the initial administrator visit" has been added to the section to provide a date for measuring the initial testing period.

3. In response to a suggestion made in a comment, the phrase "which is to be

certified" has been added to the section to clarify which units may be selected by the administrator for testing.

Second, the language requiring testing of a product has been revised to make it clear that the rule requires the product, not the testing procedures, to be in compliance with the applicable standards.

5. *Section 200.939(c)(2)*. Section 200.939(c)(2) provides for inspections, at least once every six months, to determine that quality control procedures continue to provide a level of quality control which is equivalent or superior to that provided by the procedures which were initially accepted. The proposed rule provided only that initially accepted quality control procedures continue to be followed. It was amended to address the concern of one commenter that such language might prevent improvements and changes in certified products.

#### Additional Comments

1. One commenter, a window manufacturer, argued that the rule's certification requirements are too general to insure that products will comply with the applicable standards. Specifically, the commenter noted three areas of objection, and each will be discussed in turn. In fact, however, the certification requirements adopted by this rule are commonly accepted industry practice. They provide minimum requirements necessary to provide reasonable assurance that products will comply with the applicable standards. These certification requirements are not intended to replace a manufacturer's test program on product performance.

First, the commenter argued that the testing period, once every four years, is too lengthy. The commenter maintained that testing once every four years would do nothing to insure product compliance for the previous 48 months.

The Department has concluded that this is a cost effective requirement which is sufficient to provide reasonable assurance of product compliance. The Department's conclusion is based upon the following information: (1) It is general industry practice to update or change units at four- or five-year intervals; (2) the program administrator is required to make inspection visits every six months; and (3) the cost to the manufacturer of testing is high.

Second, the commenter objected to testing only the largest size unit commercially available because of the possibility that other sizes might contain significant modifications.

Because test results from the largest size may be extrapolated to all other

sizes, this method allows the administrator to determine whether all window and door sizes comply with the applicable standards by testing only one size. This method thus saves the manufacturer the cost of testing many sizes. As such, it is a cost effective means of determining product compliance.

Finally, the commenter maintained that the rule does nothing to insure that a certified product has not been downgraded. In fact, § 200.939(c)(2) provides that the administrator shall visit the manufacturer's facility at least once every six months to insure that quality control procedures "continue to be followed." By so doing, the section insures that the quality of certified products is not downgraded.

2. One commenter suggested that the cost impact of requiring permanent labels be further evaluated. The commenter estimated, based on its experience with another labeling program, that permanent labels would cost between \$3.00 and \$7.00 per unit.

The Department believes that any possibility that labeling would have resulted in excessive costs has been eliminated by the following changes made by this final rule: (1) The elimination of certain information from the label; (2) the elimination of the requirement that labels be permanently affixed; and (3) the addition of language specifying that the label need not be placed in a visible, exposed location.

3. One commenter was concerned that the rule would require increased recordkeeping and thus result in higher costs to the consumer.

The certification program required by this rule imposes little, if any, additional recordkeeping on the manufacturer beyond that which is required by normal administrative business practice. The Department considers any additional costs associated with this rule to be outweighed by the benefits achieved by the program. Those benefits include the public's assurance that wood window units and wood sliding patio doors used in HUD programs are products which comply with industry standards. This conclusion is based in part upon the Department's experience with other certification programs, including those for aluminum windows, carpeting, and the grademarking of plywood.

4. One commenter expressed concern that proprietary details concerning the product which are revealed in the course of certification would become available to the public and to competitors under the Freedom of Information Act.

The Department does not maintain the type of information referred to by the commenter. If the disclosure of such information is deemed necessary to certification, it is revealed only to the program administrator. Such information would, in any event, be exempt from disclosure under the Freedom of Information Act under the category of privileged commercial information and trade secrets (see 5 U.S.C. 552(b)(4)).

5. One commenter suggested that § 200.939(c)(1) be revised to require "testing in accordance with the performance requirements of the applicable standard." (The underlined portion is the commenter's suggested addition.)

This suggestion has not been adopted. An effective certification program must require testing in compliance with the entire referenced standard. Testing in compliance with only the "performance requirements" of the applicable standard is therefore not acceptable.

6. One commenter suggested that a different system for certifying products be established. The commenter suggested annual independent laboratory tests to verify compliance with applicable standards. He also suggested that the Department establish service obligations, and that multiple levels of performance be established.

The Department has concluded that these requirements are not necessary to provide reasonable assurance that products used in structures for which it has provided mortgage insurance meet a minimum acceptable standard. Any requirements above the minimum standard may increase the cost of the particular product and are not necessary to the effective implementation of this program.

A Finding of No Significant Impact with respect to the environment has been made in accordance with HUD regulations in 24 CFR Part 50, which implement section 102(2)(C) of the National Environmental Policy Act of 1969. The Finding of No Significant Impact is available for public inspection and copying during regular business hours in the Office of the Rules Docket Clerk, Department of Housing and Urban Development, 451 7th Street SW., Room 10278, Washington, D.C. 20410.

This final rule does not constitute a "major rule" as that term is defined in Section 1(b) of Executive Order 12291 on Federal Regulations issued by the President on February 17, 1981. Analysis of the Rule indicates that it does not: (1) Have an annual effect on the economy of \$100 million or more; (2) cause a major increase in costs or prices for consumers, individual industries,

Federal, State, or local government agencies, or geographic regions; or (3) have a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

Pursuant to the provisions of 5 U.S.C. 605(b) (the Regulatory Flexibility Act), the Undersigned hereby certifies that this rule would not have a significant economic impact on a substantial number of small entities. UM 59b adopts consensus standards which are nationally recognized throughout the affected industries and will not create a burden on manufacturers currently meeting the standards.

This Rule was listed under the Office of Housing in the Department's Semiannual Agenda of Regulations published on April 19, 1984, 48 FR 15902 and 15915, Sequence No. 27, pursuant to Executive Order 12291 and the Regulatory Flexibility Act.

The Catalog of Federal Domestic Assistance does not apply to this Rule.

#### List of Subjects in 24 CFR Part 200

Administrative practice and procedure, Claims, Equal employment opportunity, Fair housing, Housing standards, Loan programs: Housing and community development, Mortgage insurance, Organization and functions (Government agencies), Reporting and recordkeeping requirements, Minimum Property Standards, Incorporation by reference.

#### PART 200—[AMENDED]

Accordingly, 24 CFR Part 200 is amended by adding a new § 200.939 to read as follows:

§ 200.939 Supplementary specific procedural requirements under HUD Building Products Standards and Certification Program for wood window units and wood sliding patio doors.

(a) *Applicable Standards.* (1) Wood window units and wood sliding patio doors certified under this program shall be designed, assembled and tested in conformance with the following American National Standards Institute/National Wood Manufacturer's Association (ANSI/NWMA) standards:

(i) ANSI/NWMA LS. 2-80 (1980) Industry Standard for Wood Window Units.

(ii) ANSI/NWMA LS. 3-70 (1976) Industry Standard for Wood Sliding

Patio Doors.

(2) These standards have been approved by the Director of the Federal Register for incorporation by reference.

They are available from the American National Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018. The standards are also available for inspection at the Office of the Federal Register, 1100 L Street NW., Room 8401 Washington, D.C. 20403.

(b) *Labeling.* (1) Under the procedures set forth in § 200.935(d)(6) concerning labeling of a product, the administrator's validation mark and the manufacturer's certification of compliance with the applicable standards are required to be on the certification label issued by the administrator to the manufacturer. In the case of wood window units and wood sliding patio doors, the following additional information shall be included on the certification label:

(i) The manufacturer's certification of compliance with the applicable ANSI/NWMA standard.

(ii) The manufacturer's name and a code identifying the manufacturing plant location.

(2) The certification label shall be affixed to each wood window unit and wood sliding patio door and shall be located so that it is available for future identification; a visible, exposed location is not required.

(c) *Periodic tests and quality control inspections.* Under the procedures set forth in § 200.935(d)(8) concerning periodic tests and quality control inspections, the frequency of testing for a product shall be described in the specific building product certification program. In the case of wood windows units and wood sliding patio doors, testing and inspection shall be conducted as follows:

(1) At least once every four years, beginning with the initial administrator visit, a sample unit of the maximum size commercially available which is to be certified shall be selected by the administrator and tested for compliance with the applicable standards. Testing shall be conducted in an approved laboratory.

(2) At least once every six months, the administrator shall visit the manufacturer's facility and review quality control procedures to determine that they provide a level of quality control which is equivalent or superior to that provided by the procedures which were initially accepted.

Authority: Sec. 521 of the National Housing Act, 12 U.S.C. 1735e, Sec. 7(d), Department of Housing and Urban Development Act, 42 U.S.C. 3535(d); Sec. 211 of the National Housing Act, 12 U.S.C. 1715b.

Dated: June 4, 1984.

Shirley M. Wiseman,  
General Deputy Assistant Secretary for  
Housing—Federal Housing Commissioner.

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 81

[A-5-FRL-2602-8]

### Designation of Areas for Air Quality Planning Purposes; Attainment Status Designations: Ohio

AGENCY: U.S. Environmental Protection  
Agency (EPA).

ACTION: Final rulemaking.

**SUMMARY:** EPA is approving a request from the State of Ohio to revise the attainment status designations, at 40 CFR 81.336, of 37 counties in Ohio from nonattainment to attainment relative to the ozone National Ambient Air Quality Standard. These counties are: Allen, Ashland, Belmont, Brown, Carroll, Champaign, Darke, Erie, Fairfield, Fayette, Fulton, Hancock, Harrison, Henry, Highland, Hocking, Holmes, Huron, Knox, Lawrence, Logan, Madison, Marion, Medina, Morrow, Ottawa, Perry, Pickaway, Richland, Ross, Sandusky, Seneca, Shelby, Tuscarawas, Union, Wayne, and Wood.

Additionally, EPA is denying the State's request to redesignate Columbiana, Delaware, Geauga, Greene, Lake, Licking, Lorain, Miami, and Trumbull Counties from nonattainment to attainment.

The intent of this notice is to discuss the result of EPA's review of the State's redesignation request and the public comments received regarding EPA's proposed action, and to approve and deny the State's request as noted above. Under the Clean Air Act, designations can be changed if sufficient data are available to warrant such change.

**EFFECTIVE DATE:** July 12, 1984.

**ADDRESSES:** Copies of the redesignation request, technical support documents and the supporting air quality data are available at the following addresses:

Environmental Protection Agency,  
Region V, Air Programs Branch, 230 S.  
Dearborn Street, Chicago, Illinois  
60604

Ohio Environmental Protection Agency,  
Office of Air Pollution Control, 361  
East Broad Street, Columbus, Ohio  
43216.

**FOR FURTHER INFORMATION CONTACT:**  
Debra Marcantonio, Air and Radiation

Branch (5AR-26), Environmental  
Protection Agency, Region V, Chicago,  
Illinois 60604, (312) 886-6088.

**SUPPLEMENTARY INFORMATION:** Under section 107(d) of the Clean Air Act (CAA) the Administrator of EPA has promulgated the National Ambient Air Quality Standards (NAAQS) attainment status for all areas within each State. See 43 FR 8962 (March 3, 1978) and 43 FR 45993 (October 5, 1978). These area designations are subject to revision whenever sufficient data become available to warrant a redesignation. In the State of Ohio, 63 counties are currently designated as not attaining the NAAQS for ozone.

On November 29, 1982, the Ohio EPA (OEPA) submitted: (1) A request to EPA to revise the section 107 attainment status designations for the 46 counties listed in the Summary portion of this notice; and, (2) Recent ozone ambient air quality monitoring data collected in the State. In reviewing OEPA's redesignation request EPA analyzed the monitoring data submitted by the State, along with supplemental monitoring data from areas adjoining the counties for which the State requested redesignation. EPA also analyzed population data, volatile organic compound (VOC) emissions data, and the locations of the counties under consideration in relation to the proximity of other non-attainment areas.

#### Redesignation Criteria for Ozone

The NAAQS for ozone is defined to be violated when the annual average expected number of daily exceedances of the standard (0.12 parts per million (ppm), 1-hour average) is greater than one (1.0). A daily exceedance occurs when the maximum hourly ozone concentration monitored during a given day exceeds 0.124 ppm ("Guideline for the Interpretation of Ozone Air Quality Standard", EPA-450/4-79-003). The expected number of daily exceedances is calculated from the observed number of exceedances by making the assumption that nonmonitored days (invalid or incomplete) have the same fraction of daily exceedances as observed on monitored days (EPA-450/4-79-003).

Specific criteria for ozone redesignation reviews are given in an EPA April 21, 1983, memorandum entitled "Section 107 Designation Policy Summary" from Sheldon Meyers, Director of the Office of Air Quality Planning and Standards, and a December 23, 1983, memorandum entitled "Section 107 Questions and Answers" from G. T. Helms, Chief Control Programs Operations Branch.

These documents are in the record for this rulemaking action and are available for public review at the Region V office. These documents indicate that the three most recent years of ozone data at each site should be considered in the review of redesignation requests. The April 21, 1983, guidance indicates that less than three years of ozone data may be considered as adequate support for redesignations to attainment if no exceedances of the ozone standard have occurred in the most recent year or two years and if enforceable emission reductions can be demonstrated to be the cause of the recent air quality improvements. Consideration of only the most recent year also requires the use of a state-of-the-art modeling analysis (such as city-specific EKMA) to demonstrate the adequacy of recent emission reductions. Finally, and of significant importance for today's rulemaking, the guidance indicates that urban ozone nonattainment areas should include all of the urbanized area, and fringe areas of development, and all of the significant Volatile Organic Compound (VOC) sources assumed to be responsible for the downwind ozone problem.

The current EPA redesignation policy, as defined in the April 21, 1983 policy memorandum, specifically states that redesignations from nonattainment to unclassifiable are unacceptable. The current policy is based on the assumption that states have had ample time since 1978 to thoroughly study each nonattainment area to determine the correct nature of the area. However, contrary to the assumptions reflected in this policy, some nonattainment areas have not been monitored. A number of areas were designated as nonattainment based purely on the assumption that, due to their locations, these areas would experience violations of the 0.08 ppm standard (the standard prior to February 8, 1979). Many of these areas have never been monitored. In these areas, it is necessary to base the designations upon the nature of ozone formation/transport observed in other monitored areas.

Based on EPA's review of the State's request and the supporting monitored ozone concentrations during the 1980 thru September 1982 period, on August 10, 1983 (48 FR 36275) EPA proposed to revise the designation status relative to the ozone NAAQS to attainment for Allen, Ashland, Belmont, Brown, Carroll, Champaign, Darke, Erie, Fairfield, Fayette, Fulton, Hancock, Harrison, Henry, Highland, Hocking, Holmes, Huron, Knox, Lawrence, Logan, Madison, Medina, Morrow, Ottawa, Perry, Pickaway, Richland, Ross,



Sandusky, Seneca, Shelby, Tuscarawas, Union, Wayne, and Wood Counties. Additionally, EPA proposed to deny the State's request to redesignate Columbiana, Delaware, Geauga, Greene, Lake, Licking, Lorain, Marion, Miami, and Trumbull Counties from nonattainment to attainment/unclassifiable.

Today EPA is taking final action to approve and deny the portions of the States request as noted above with one exception. As a result of EPA's review of the public comments, EPA now agrees that Marion County should also be designated to attainment. Therefore, EPA is redesignating the 36 counties it proposed to redesignate on August 10, 1983 and Marion County to attainment of the ozone NAAQS. Further discussion on EPA's action on designating Marion County is contained in the public comment section of this notice.

#### Response to Comments on EPA's Proposed Rulemaking

During the public comment period three sets of comments were received. Each issue is discussed below.

##### *Comment*

The State commented that EPA's proposed disapproval of the State's request to redesignate Lorain County to attainment is contrary to the definition of a nonattainment area contained in section 171(a)(2) of the CAA. Section 171(a)(2) defines a nonattainment area as " \* \* \* an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the Administrator to be reliable) to exceed any national ambient air quality standard \* \* \* ". The State contends that, since available ozone monitoring data show no violations of the ozone standard in Lorain County during the most recent three years and no modeling data exist to prove otherwise, EPA should approve the redesignation of Lorain County. This redesignation should be approved regardless of the VOC emission characteristics of Lorain County.

##### *EPA Response*

EPA disagrees with the State's narrow interpretation of nonattainment. Part D of the CAA requires states to develop SIPs for nonattainment areas which provide for the attainment of the NAAQS. Since Part D plans are required only for the nonattainment areas, it is important that the nonattainment areas are of sufficient size to include all emission sources (VOC sources in the case of ozone nonattainment areas)

which contribute significantly to the violations of the NAAQS.

If, as the State comments, the nonattainment area is interpreted to be a smaller area (including only those counties with monitored ozone violations), it could be further argued that the planning agencies should only inventory and control those sources within the nonattainment area even when sources upwind are significant contributors to NAAQS violations.

Under this scenario, the probable under-control of sources outside of the nonattainment area could result in a technically unsound control strategy and continued NAAQS violations.

Based on the regional nature of ozone formation and on the above arguments, EPA's current designation policy (Apr. 21, 1983 memorandum) requires an urban ozone nonattainment area to include all of the urbanized area and adjoining areas of significant VOC emissions. Since it was previously determined that Lorain County contains part of the Cleveland urbanized area as well as the contiguous Lorain-Elyria urbanized area and is a significant VOC emission area with potentially significant downwind ozone impacts, EPA disagrees with the State's comment and continues to consider Lorain County as part of the Cleveland ozone nonattainment area. EPA cannot, therefore, approve the State's request to redesignate Lorain county to attainment.

##### *Comment*

The State comments that EPA has previously evaluated ozone designations on a county-by-county basis. The State considers EPA's proposed rulemaking for those counties for which EPA proposed to deny Ohio's redesignation request to be contrary to past actions.

##### *EPA Response*

EPA Region V has not previously redesignated to attainment any counties containing significant portion of an urbanized area which has experienced current ozone standard violations at other locations within the urban nonattainment area. Therefore, EPA has not not previously redesignated to attainment areas on a strict county-by-county basis.

EPA has in the past redesignated non-monitored/non-urban (rural) counties to "unclassifiable". Such a redesignation, however, is no longer acceptable, as discussed above. EPA believes that, lacking other supporting data, proximity to major VOC emission areas (primarily major urbanized areas) and consideration of prevailing wind directions forms an appropriate and reasonable basis for assessing requested

redesignations from nonattainment to attainment. EPA bases its decision in this case on ozone concentrations monitored in and downwind of major urbanized areas, such as Chicago, St. Louis, Los Angeles, and Detroit. Based on these observations and on the direct association of Lorain and Medina Counties with the Cleveland urban area, EPA continues to believe that the denial of the redesignation of the ten counties, as listed above, is appropriate.

##### *Comment*

The State contends that no basis in law exists to support EPA's implication of nonattainment based on proximity to nonattainment counties. In addition, an Ohio property owner protested "the depriving of any county of the United States from having a classification of attainment due to its proximity to any other county", and alleged that the Agency was engaged in unconstitutional activity as a result. More specifically, the citizen complained that the Agency was unlawfully seizing property rights of people in rural areas, in violation of the 4th and 5th Amendments of the Constitution.

##### *EPA Response*

Section 107 of the CAA gives EPA the authority to review and rulemake on area air quality designations. Since it is EPA's current policy (April 21, 1983 memorandum) to redesignate areas as only attainment or nonattainment, it is necessary for EPA to establish some criteria for the redesignation of non-monitored areas. For a non-monitored area, it is logical to assume a designation based on its proximity to major precursor source areas (generally major urban nonattainment areas) taking into consideration prevailing wind directions. Data from areawide ozone/precursor studies in the vicinity of major urban areas, such as St. Louis and Philadelphia, as well as data from rural sites in Region V indicate that ozone transport at significant concentration levels can occur over considerable distances downwind from urban areas. Based on this observation, EPA believes that non-monitored counties immediately downwind of major urban nonattainment areas should be assumed to be nonattainment until such time as in-county ozone data become available proving otherwise or until the urban area is redesignated to attainment.

EPA does not agree that this policy leads to any unconstitutional activity on the part of the Agency through the unlawful seizure of property rights of rural land owners. Property rights do not

exist independent of certain responsibilities to the public interest. Courts have consistently applied a type of balancing test to the concept of private property such that the public interest in preserving or preventing further deterioration to land may outweigh the conflicting interest of a private owner in fully exploiting the economic profitability of his land. Any restrictions which may be imposed on ozone nonattainment areas in the form of growth restrictions do not prohibit the landowner from making a limited but reasonable use of his land, and cannot be viewed as a permanent taking of property rights.

#### *Comment*

The State comments that, since prevailing winds, as discussed by the EPA in the proposed rulemaking, are from the south-west in Ohio, Columbiana County, Delaware County, and Trumbull County are not "downwind" of their associated, adjacent urban nonattainment areas, as claimed by EPA.

#### *EPA Response*

The State has misinterpreted EPA's discussion in the proposed rulemaking to imply that a single prevailing wind direction may be considered. When EPA refers to an area as being downwind of a major VOC emission source area, EPA is referring to the area into which ozone or its precursors is transported from the VOC emission area. Wind directions fluctuate considerably on any given day and from day-to-day. During an ozone season, a wide range of trajectories exist over which ozone or its precursors is transported from a source area. Inspection for windroses for Ohio during previous ozone seasons indicates wind directions from the quadrant of south thru west predominate. These analyses focused on the days with high ozone formation potential by only considering data for days with peak temperatures in excess of 75 degrees Fahrenheit. Based on the results of these analyses, it is assumed that areas lying in the general direction of north through east of major urban areas may be considered to be predominately downwind of these urban areas during the ozone season. The downwind areas are relatively large in extent.

Recognizing that ozone concentrations in excess of the standard have been monitored in excess of fifty kilometers downwind of major urban areas, such as Chicago, St. Louis, Los Angeles, New York, Detroit, etc., it is appropriate to assume that some of the non-monitored/nonattainment areas in Ohio would currently experience ozone standard

violations. These areas include Columbiana (downwind of Canton), Delaware (downwind of Columbus), and Trumbull (downwind of Youngstown) counties. Therefore, the EPA disagrees with the State's comments on this issue.

#### *Comment*

The State comments that Geauga County lies close to Lake Erie and may be subject to lake breeze effects, which the State believes EPA did not take into account in its analysis.

#### *EPA Response*

It is unclear to EPA what the State intended to imply in this comment. If the State implies that lake breezes would be responsible for ozone standard violations in Geauga County and should not be considered, EPA must point out that lake breezes are common occurrences along the areas adjoining Lake Erie and other large bodies of water. EPA does not consider these to be abnormal, infrequent phenomena and, therefore, does not exclude from consideration ozone exceedances caused by such phenomena.

If the State implies that lake breezes lead to significant ozone transport between Cleveland, and Geauga County, EPA agrees that such a pollutant effect could exist. This may explain a means by which ozone standard exceedances could occur in Geauga County as a result of ozone precursor emissions in Cleveland. It does not argue against the possible existence of such exceedances. EPA continues to believe that Geauga County is a nonattainment area for ozone.

#### *Comment*

The State comments that it does not consider Jefferson County to be a significant VOC source area affecting ozone levels in Columbiana County. As evidence for this, the State indicates that only one ozone standard exceedance occurred in Jefferson County during the 1981 through 1982 period and that no exceedances have been recorded thus far in 1983. The State is opposed to EPA's denial of the redesignation of Columbiana County.

#### *EPA Response*

Considering the fact that Steubenville (the largest city in Jefferson County) is not a major urbanized area (defined to have a population equal to or in excess of 200,000), EPA agrees with the State that a solid conclusion can not be drawn concerning the potential impact of Jefferson County VOC emissions on Columbiana County ozone levels. Nevertheless, Columbiana County is immediately east of Stark County, which

contains the major urban area of Canton. Under the assumptions applied by EPA in the review of Ohio's redesignation request, Columbiana County is still considered to be an ozone nonattainment area due to its proximity to the Canton urban nonattainment area.

#### *Comment*

The State comments that the areas of West Virginia immediately adjacent to Columbiana County have always been designated as attainment for ozone. The State considers this to be an inconsistency in designation based on regulations contained in 40 CFR Part 50. The implication of this comment is that the West Virginia area adjoining Columbiana County should be redesignated to nonattainment or that Columbiana County should be redesignated to attainment.

#### *EPA Response*

Conceding that Jefferson County, Ohio may not be a significant VOC source area causing downwind ozone standard exceedances, one must conclude that the West Virginia counties do not adjoin an upwind major VOC source area.

Therefore, the West Virginia counties in question would pass the tests for attainment as applied to the non-monitored, rural Ohio counties. Columbiana County should remain as nonattainment based on its proximity to the Canton urbanized nonattainment area.

#### *Comment*

The State comments that EPA may not use the implication of nonattainment based on association with major urban nonattainment areas or monitored rural nonattainment areas to deny the redesignation of Columbiana, Delaware, Geauga, Greene, Licking, Miami, and Trumbull Counties.

#### *EPA Response*

Current EPA designation policy (April 21, 1983 memorandum), as noted above, requires that potential redesignation areas be determined to be either in attainment or nonattainment of the NAAQS. Under this policy, designation of unclassifiable is no longer appropriate. Prior observations of ozone formation and transport in the vicinity of major urban areas support the policy applied in the August 10, 1983 notice of proposed rulemaking. In other words, EPA continues to consider Columbiana, Delaware, Geauga, Greene, Licking, Miami, and Trumbull Counties to be nonattainment for ozone based on their proximity to major urban nonattainment



areas, and the regional nature of ozone formation.

#### Comment

The State and an industrial commenter have commented that Marion County should be considered to be in attainment of the ozone NAAQS based on in-county data and ozone data from monitors in other surrounding counties. This data had certain deficiencies in that certain monitoring data which should have been collected at the Marion County site was missing for a number of days. Despite the deficiency, the State indicates that peak ozone data from six monitors in Clark, Lucas, and Franklin Counties on days where data was missing at the Marion County site would imply that the Marion County site would not have experienced an exceedance of the ozone standard during the missing days. The support data supplied by the State are included in the technical support document for this rulemaking action.

The industrial commenter has established correlations between Marion County peak ozone data and peak ozone data from Franklin and Sandusky Counties during 1980. These correlations have been used to estimate the probable peak ozone concentrations at the Marion County site on the missing days.

It is the opinion of both of these commenters that the expected ozone exceedances for Marion County should be calculated assuming that the missing days did not have ozone standard exceedances.

#### EPA Response

Although the approaches put forward by the State and the industrial commenter are not standard data review procedures applied by EPA, the data presented do support an assumption that exceedances did not occur on any of the days with missing data. The State-supplied data, in particular, support this assumption.

These data were collected in the urban nonattainment areas most likely to impact the Marion County area. Marion County contains no major urban area. Any ozone standard exceedances experienced in Marion County may be reasonably expected to result from ozone transport from the nearby major urban areas covered by the State's data. These data imply that the days in question probably were not conducive to formation of high ozone concentrations in excess of the standard. Therefore, EPA agrees that the expected number of ozone standard exceedances should be 1.0 for the year monitored, and that Marion County

should be redesignated to attainment for ozone.

#### Conclusion

Based on EPA's review of the State's redesignation request and the construction of the public comments EPA is approving and disapproving the State's redesignation request to redesignate counties relative to the ozone NAAQS as follows:

1. Redesignating to attainment (approval of request): Allen, Ashland, Belmont, Brown, Carroll, Champaign, Drake, Erie, Fairfield, Fayette, Fulton, Hancock, Harrison, Henry, Highland, Hocking, Holmes, Huron, Knox, Lawrence, Logan, Madison, Marion, Medina, Morrow, Ottawa, Perry, Pickaway, Richland, Ross, Sandusky, Seneca, Shelby, Tuscarawas, Union, Wayne, and Wood Counties.

2. No change (denial of request): Columbiana, Delaware, Geauga, Greene, Lake, Licking, Lorain, Miami, and Trumbull Counties.

The Office of Management and Budget has exempted this rule from the requirements of Section 3 of Executive Order 12291.

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by August 13, 1984. This action may not be challenged later in proceedings to enforce its requirements. (See 307(b)(2).)

#### List of Subjects in 40 CFR Part 81

Air pollution control, National parks, Wilderness areas.

This notice is issued under authority of Sections 107(d) and 301 of the Act, as amended (42 U.S.C. 7407(d) and 7601).

Dated: May 31, 1984.  
William D. Ruckelshaus,  
Administrator.

#### PART 81—DESIGNATION OF AREAS FOR AIR QUALITY PLANNING PURPOSES

Part 81 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

Section 81.336 is amended by revising the Ohio—zone (O<sub>3</sub>) table as follows:

§ 81.336 Ohio.

\* \* \* \* \*

#### OHIO—OZONE (O<sub>3</sub>)

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
Allen		X
Ashland		X
Belmont		X
Brown		X
Carroll		X
Champaign		X
Drake		X
Erie		X
Fairfield		X
Fayette		X
Fulton		X
Hancock		X
Harrison		X
Henry		X
Highland		X
Hocking		X
Holmes		X
Huron		X
Knox		X
Lawrence		X
Logan		X
Madison		X
Marion		X
Medina		X
Morrow		X

OHIO—OZONE (O<sub>3</sub>)—Continued

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
Ottawa.....		X
Perry.....		X
Pickaway.....		X
Richland.....		X
Ross.....		X
Sandusky.....		X
Seneca.....		X
Shelby.....		X
Tuscarawas.....		X
Union.....		X
Wayne.....		X
Wood.....		X

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## 40 CFR Parts 52 and 81

[A-5-FRL-2603-4]

## Designations of Areas for Air Quality Planning Process; Attainment Status Designations; Illinois

AGENCY: U.S. Environmental Protection Agency.

ACTION: Final rulemaking.

**SUMMARY:** EPA is approving a request from the State of Illinois to revise the nonattainment designation at 40 CFR 81.314 for portions of three counties. EPA is revising the designation of the Central Core area of Cook County from nonattainment to attainment for nitrogen dioxide (NO<sub>2</sub>). EPA is also revising the nonattainment area in Peoria County and portions of the nonattainment area in Cook County to attainment for carbon monoxide (CO).

EPA is denying the State's request to redesignate Kane and DuPage Counties from nonattainment to attainment for ozone. EPA is also denying the State's request to redesignate a portion of Cook County from nonattainment to attainment for CO.

The intent of this notice is to discuss the results of EPA's review of the State's redesignation request and the public comments received regarding EPA's proposed action, and to approve and deny the State's request as noted above. Under the Clean Air Act, designations can be changed if sufficient data are available to warrant such change.

In addition, because the only nonattainment area in the State for NO<sub>2</sub> is being redesignated to attainment, the

outstanding condition on the Illinois NO<sub>2</sub> plan is no longer relevant and is therefore being removed from Part 52 of Title 40 of the Code of Federal Regulations.

EFFECTIVE DATE: July 12, 1984.

**ADDRESSES:** Copies of the redesignation request, technical support documents and the supporting air quality data are available at the following addresses:

Environmental Protection Agency,  
Region V, Air Programs Branch, 230 S.  
Dearborn Street, Chicago, Illinois  
60604

Illinois Environmental Protection  
Agency, Division of Air Pollution  
Control, 2200 Churchill Road,  
Springfield, Illinois 62706.

**FOR FURTHER INFORMATION CONTACT:**  
Debra Marcantonio, Air and Radiation  
Branch (5AR-26), Environmental  
Protection Agency, Region V, Chicago,  
Illinois 60604, (312) 886-6088.

**SUPPLEMENTARY INFORMATION:** Under section 107(d) of the Act the Administrator of EPA has promulgated the NAAQS attainment status for each area of every state. See 43 FR 8962 (March 3, 1978) and 43 FR 45993 (October 5, 1978). These area designations may be revised whenever the data warrant.

On January 27, 1983, the Illinois Environmental Protection Agency (IEPA) submitted a request to EPA to revise the section 107 attainment status designations for a number of areas for ozone, carbon monoxide (CO), a nitrogen dioxide (NO<sub>2</sub>) and total suspended particulates (TSP). The ozone, CO, and NO<sub>2</sub> redesignation requests are addressed in today's

rulemaking. The State's TSP redesignation request will be addressed in a separate action.

In reviewing IEPA's redesignation request, EPA analyzed the monitoring data submitted by the State, along with supplemental monitoring data from areas adjoining the counties for which the State requested redesignation. EPA also analyzed population data, volatile organic compound (VOC) emissions data, and the locations of the counties under consideration in relation to the proximity of other nonattainment areas.

Based on EPA's review of the State's request and the supporting monitored ozone concentrations, on October 11, 1983 (48 FR 46082), EPA proposed to revise the designation status for portions of three counties. EPA proposed to revise the central core of Cook County from nonattainment to attainment for NO<sub>2</sub> and the Peoria nonattainment area in Peoria County from nonattainment to attainment for CO. Additionally, EPA proposed to deny the State's request to redesignate the ozone attainment status of Kane and DuPage Counties and the CO attainment status for the majority of the expressway corridors of Cook County.

Today EPA is approving and denying the portions of the State's request as noted above with one exception. As a result of EPA's review of additional information submitted by the State, EPA now agrees that portions of the Cook County CO nonattainment area should be designated to attainment. Further discussion on EPA's action redesignating portions of Cook County for CO is addressed later in this notice.

## Redesignation Criteria for Ozone

The NAAQS for ozone is violated when the annual average expected number of daily exceedances of the standard (0.12 parts per million (ppm), 1-hour average) is greater than one (1.0). A daily exceedance occurs when the maximum hourly ozone concentration monitored during a given day exceeds 0.124 ppm ("Guideline for the Interpretation of Ozone Air Quality Standard", EPA-450/4-79-003). The expected number of daily exceedances is calculated from the observed number of exceedances by making the assumption that non-monitored days (invalid or incomplete) have the same fraction of daily exceedances as observed on monitored days (EPA-450/4-79-003).

Specific criteria for ozone redesignation reviews are given in EPA's April 21, 1983 and December 23, 1983 policy documents. These documents indicate that the three most

recent years of ozone data at each site should be considered in the review of redesignation requests. The April 21, 1983 guidance indicates that less than three years of ozone data may be considered as adequate support for redesignations to attainment if no exceedances of the ozone standard have occurred in the most recent year or two years and if enforceable emission reductions can be demonstrated to be the cause of the recent air quality improvements. Consideration of only the most recent year also requires the use of a state-of-the-art modeling analysis (such as city-specific EKMA) to demonstrate the adequacy of recent emission reductions. Finally, the guidance indicates that urban ozone nonattainment areas should include all of the urbanized area and all of the significant Volatile Organic Compound (VOC) sources responsible for the downwind ozone problem.

#### Redesignation Criteria for CO and NO<sub>2</sub>

The primary NAAQS for carbon monoxide (CO) is violated if, more than once in a calendar year (or four consecutive quarters) maximum monitored CO concentrations exceed either: (1) The maximum allowable eight-hour concentration of 10 milligrams per cubic meter of air (10 mg/m<sup>3</sup>); or (2) the maximum allowable one hour concentration of 40 mg/m<sup>3</sup>.

The primary NAAQS for NO<sub>2</sub> is violated, if, in a calendar year, maximum monitored NO<sub>2</sub> concentrations exceed 100 mg/m<sup>3</sup>, annual arithmetic mean.

Specific criteria for CO and NO<sub>2</sub> redesignation reviews are given in EPA's June 12, 1979 and April 21, 1983 policy documents. These documents indicate that the most recent eight quarters of monitoring data at each site should be considered in the review of redesignation requests. If relevant modeling data are available, these data must also be considered. In addition, any redesignation request must include evidence of an implemented emissions control strategy that EPA has approved.

#### Responses to Public Comment

During the public comment period, comments on EPA's proposed rulemaking were received from the IEPA, a public interest group, and a law firm representing local industries. Each of the issues raised concerning EPA's proposed action is discussed below.

#### Comment

One commenter indicated that the EPA is in error in redesignating the Chicago core area to attainment for NO<sub>2</sub> because this action would give the

public an incorrect impression of the extent of the NO<sub>2</sub> problem in Chicago. The commenter pointed out that a NO<sub>2</sub> monitor in Cicero has detected a violation of the NO<sub>2</sub> standard every year since 1979 with the exception of 1981, when the annual average concentration was equal to the standard.

#### EPA Response

The IEPA redesignation request and EPA's proposed action only cover the existing nonattainment area. The proposed redesignation does not deal with the rest of Cook County. Since the available monitoring data in the nonattainment area show no violations and since no emissions or modeling data exist pointing to possible violations in this area, EPA agrees with the IEPA that this area should be designated as attainment.

#### Comment

A commenter believes that the lower peak ozone concentrations observed in Kane and DuPage Counties during the recent years were due more to favorable (non-ozone conducive) meteorology and economic downturn (lower industrial production rates) rather than to real enforceable VOC emission reductions. Therefore, the commenter believes EPA should not redesignate these Counties.

#### EPA Response

Although this is not EPA's basis for retaining the nonattainment designation for Kane and DuPage counties, EPA agrees that favorable meteorology and economic effects could have had some impact on recent ozone concentrations.

#### Comment

A commenter believes, that since ozone is monitored at one site in Kane County and one site in DuPage County, EPA and the State cannot consider all of these Counties to be in attainment of the standard. The commenter believes that other parts of these Counties may have had higher ozone concentrations and more exceedances of the standard than the monitoring sites during the most recent years.

#### EPA Response

EPA has no data or reasons to believe that other, non-monitored portions of these Counties experienced significantly higher ozone concentrations than the monitoring sites during the recent years. Based on observations made in St. Louis during the Regional Air Pollution Study (RAPS) and in other heavily monitored areas, such as Los Angeles, one may expect only small spatial gradients in the ozone concentrations in Kane and DuPage Counties. Therefore, ozone

concentrations elsewhere in these Counties should not differ drastically from those monitored.

#### Comment

A commenter pointed out that 1933 was associated with an increase in ozone standard exceedances over those observed in other, recent (post 1979/1980) years in Kane and DuPage Counties. The commenter is concerned that this increase in the frequency of exceedances may be due to an increase in industrial production resulting from an improvement in the national and local economies. The commenter believes EPA should disapprove the redesignation of Kane and DuPage Counties since this trend may continue.

#### EPA Response

EPA is aware of the recent increase in the annual number of ozone standard exceedances. EPA is retaining the nonattainment designation for Kane and DuPage Counties as recommended by the commenter.

#### Comment

A commenter states that IEPA's ozone redesignation request for Kane and DuPage Counties does not meet the requirements imposed by EPA's April 21, 1983, policy memorandum. The State did not demonstrate that actual, enforceable VOC emission reductions were responsible for the recent air quality improvement. Therefore, the commenter believes EPA should disapprove the redesignation for these Counties.

#### EPA Response

EPA agrees with the commenter that IEPA's redesignation request would not meet EPA's current redesignation support requirements.

#### Comment

The State commented that EPA's proposed disapproval of the redesignations for Kane and DuPage Counties for ozone is contrary to the definition of a nonattainment area as contained in section 175(2) (actually the State meant to cite section 171(2)) of the CAA. Section 171(2) defines a nonattainment area as " \* \* \* an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the Administrator to be reliable) to exceed any national ambient air quality standard \* \* \* ". The State contends that since available ozone monitoring data show no violations of the ozone standard in Kane and DuPage Counties during the most recent three years (1980

thru 1982) and no modeling data exist to prove otherwise, EPA should approve the redesignations of Kane and DuPage Counties for ozone.

The State further commented that EPA incorrectly assumes that the nonattainment area boundaries must be coterminous with the geographic coverage of control measures.

#### *EPA Response*

EPA disagrees with the State's narrow interpretation of nonattainment, particularly for ozone. EPA equates nonattainment areas with those areas requiring Part D State Implementation Plans (SIPs) under section 172 of the Act. Part D of the CAA requires states to develop SIPs for "nonattainment" areas to provide for attainment of the NAAQS. Since Part D SIPs are required only for nonattainment areas, it is important that the nonattainment areas be of sufficient size to include all emission sources (VOC sources in the case of ozone nonattainment areas) which contribute significantly to the violation of the NAAQS.

If, as the State comments, the term nonattainment area is interpreted to be a smaller area (including only those counties with monitored ozone standard violations), it could be further argued under Part D of the CAA that the planning agencies should only inventory and control those sources within the nonattainment area even when sources upwind are significant contributors to the NAAQS violations. Under this scenario, the probable undercontrol of sources outside of the nonattainment area could result in a technically unsound control strategy and continued NAAQS violations. EPA rejects the State's narrow interpretation of the nonattainment area because it could hinder development of adequate Part D plans and because it could delay progress towards attainment of the ozone standard in areas downwind of Chicago.

#### *Comment*

The State comments that EPA's refusal to redesignate Kane and DuPage Counties is inconsistent with EPA's recent approval of the redesignations of McHenry and Will Counties to attainment for ozone. Will County has VOC emissions equal to 97 percent of those from DuPage County and almost twice those from Kane County. The NO<sub>2</sub> emissions (an ozone precursor) from Will County exceeds the combined NO<sub>2</sub> emissions from Kane and DuPage Counties. Will County is situated such that the prevailing winds are likely to carry ozone precursors into the Chicago urban area.

#### *EPA Response*

The main reason EPA concurred with Illinois' redesignation request for McHenry and Will Counties was that these areas contain essentially none of the Chicago urbanized area or adjacent fringe areas of development. EPA was aware of the significant VOC emissions from Will County. It was determined that these emissions were dominated by stationary source emissions. These emissions have been and will continue to be significantly reduced as a result of Illinois RACT regulations.

Kane and DuPage counties are part of the Chicago urbanized area and are therefore to be considered nonattainment until the greater Chicago area and its downwind peak impact areas are designated as attainment. This is consistent with EPA's designation policy for ozone as outlined in the January 3, 1978 memorandum from David G. Hawkins, Assistant Administrator for Air and Waste Management entitled "Attainment/Nonattainment Status Designations" and the February 24, 1978 from memorandum Douglas Costle, Administrator of EPA entitled "Criteria for Approval of the 1979 SIP Revisions".

#### *Comment*

The State comments that despite the increased number of ozone standard exceedances in 1983, which the State considers to be an abnormally high year for ozone concentrations, Kane and DuPage Counties still attain the ozone standard.

#### *EPA Response*

It may be true that the air in Kane and DuPage Counties locally attains the ozone NAAQS. However, EPA believes ozone precursor emissions in these Counties significantly contribute to ozone standards exceedances downwind in other Chicago area locations.

#### *Comment*

The State comments that EPA's redesignation policy would cause confusion to the public. The State claims that to tell the public that they are breathing clean air and to continue to designate Kane and DuPage Counties as nonattainment due to their emissions is a form of "newspeak" that should be avoided if one of the purposes of the rulemaking is to define the problem for the public.

#### *EPA Response*

The issue raised in this comment is not material to EPA's decision to retain the ozone nonattainment designation for Kane and DuPage Counties. EPA's

determination is based upon the fact that these counties are part of major urbanized areas and that emissions from these counties significantly contribute to violations of the ozone NAAQS within the urbanized area. Since ozone is an areawide phenomenon, EPA believes that it is necessary to apply areawide control strategies to solve this problem. Current Agency policy regarding ozone designations recognizes this fact and requires that these counties remain nonattainment for the purposes of implementing an effective areawide control strategy. Furthermore, EPA believes that the State can, in a nonconfusing manner, inform the public in Kane and DuPage Counties that VOC emissions from these Counties significantly contribute to downwind ozone standard violations, and that this forms the basis for the continued nonattainment designation of the area.

#### *Comment*

The State claims that EPA's rulemaking could have a serious effect on Illinois' ability to adopt further non-RACT VOC regulations in areas such as McHenry and Will Counties. The State argues that EPA's reasoning would imply that these areas are not significant sources of VOC emissions. EPA should make a distinction between attainment and the fact that emissions from McHenry, Will, Kane, and DuPage Counties still significantly contribute to ozone nonattainment in the Chicago area.

#### *EPA Response*

As noted above, EPA based its prior redesignations of McHenry and Will Counties on the fact that these areas did not include significant portions of the Chicago urbanized area or adjacent fringe areas of development and that the VOC emissions from these areas are dominated by stationary source emissions, which should be significantly reduced due to the implementation of control measures. EPA is aware that the VOC emissions from these Counties are currently significant, and therefore, encourages the State to adopt additional controls where considered to be necessary for protection of the environment locally or downwind.

#### *Comment*

The State argues that in areas where local air quality meets the standards, but where intrastate transport may be a factor, the imposition of burdensome nonattainment-related limitations on growth rather than the Prevention of Significant Deterioration (PSD) limitations that would otherwise apply

is not warranted. The State should determine what measures beyond PSD are necessary to prevent source growth in Kane and DuPage Counties from interfering with attainment of the ozone standard in Cook County.

#### *EPA Response*

The EPA continues to believe that VOC emissions in Kane and DuPage Counties are significant contributors to ozone standard violations in the Chicago area. Until such time as acceptable photochemical dispersion models are applied proving otherwise, EPA will require that VOC emission control measures similar to those applied elsewhere in the Chicago urbanized nonattainment area be applied in Kane and DuPage Counties. This is necessary to assure attainment of the ozone NAAQS throughout the Chicago urbanized area.

#### *Comment*

A commenter states that the effects that could result from EPA's proposed action on Kane and DuPage Counties must be considered. The proposed action could cause extreme sanctions to be proposed in Illinois including loss of Federal highway and environmental grants.

#### *EPA Response*

Disapproval of Illinois' redesignation requests for Kane and DuPage Counties will not itself bring on Federal funding restrictions or growth limitations. Final disapproval, however, of the 1982 ozone SIP for the Chicago area might bring on such sanctions. The EPA continues to work closely with the IEPA and in its development, and submittal of an acceptable 1982 ozone SIP.

#### *Comment*

A commenter states that factual, comprehensive monitoring data are the first and foremost information which should be relied on to determine the attainment status of a given area. In its proposed rulemaking, EPA clearly states that no violation of the ozone NAAQS has occurred in Kane and DuPage Counties. The commenter believes EPA has failed to identify convincing, factual information supporting the proposed action.

#### *EPA Response*

Extensive emissions and monitoring data collected in such areas as Los Angeles, St. Louis, and Houston has led EPA to conclude that ozone exceedances in major urban areas may be due to VOC emissions from significant portions of the urban areas. Without applying detailed

photochemical dispersion models it is difficult if not impossible to determine specifically which subareas are responsible for the observed exceedances and which are not. As reflected in EPA's redesignation policy, emissions from any portion of the urbanized area may be equally responsible for the various observed ozone standard exceedances or for similar peak ozone concentrations in non-monitored locations. This philosophy is reflected in EPA's redesignation policy. EPA would consider acceptable photochemical dispersion modeling data as justification for differentially adjusting VOC control requirements for a given urban sub-area when available. In the meantime, however, EPA must continue to follow the latest redesignation policy in assuming that an entire urbanized area and the adjoining fringe areas of development have a single attainment/nonattainment status for ozone. Kane and DuPage Counties contain part of the Chicago urbanized area or the adjacent urbanized area of Aurora-Elgin, and, in the opinion of EPA, must share in the nonattainment designation of Chicago.

#### *Comment*

A commenter notes that EPA has asserted that modeling data can as a general practice be used to determine an area's attainment status. However, there is no such modeling data in EPA's proposed rulemaking for Kane and DuPage Counties. It is concluded that EPA has not conducted such modeling. It is also highly doubtful, if modeling results were available, they would be of any value since EPA has questioned the validity of existing ozone models used in the predictive mode for determining absolute ozone levels.

#### *EPA Response*

EPA agrees that the proposed rulemaking for Kane and DuPage Counties was not based on the use of a model for ozone. Given the lack of modeling data contradicting EPA's current redesignation policy, the commenter's remarks are considered to be insufficient justification for reversing the proposed rulemaking. Since Kane and DuPage Counties contain part of the Chicago urbanized area or an adjacent fringe area of development, EPA's proposed rulemaking is in keeping with EPA's current redesignation policy.

#### *Comment*

A commenter states that EPA's use of the assumption that high population and emission densities are indicative of high downwind ozone is unsubstantiated. There are areas elsewhere in the United

States with higher population and emissions densities, such as Spokane, Washington and Minneapolis, Minnesota, which do not experience ozone standard violations.

#### *EPA Response*

The choice of the word "density" in the proposed rulemaking was perhaps inappropriate. The word "level" should have been used instead. Based on observed ozone concentrations, EPA believes that urban areas with populations in excess of 200,000 have a high potential for self-generated ozone standard exceedances. Kane and DuPage Counties contain what EPA considers to be significant portions of the Chicago urbanized and adjacent fringe area population. The combined population of Kane and DuPage Counties (1980 census) is 936,592. This population exceeds those of other urban areas, such as Louisville, Kentucky (inclusive three county 1930 census population of 834,800), which have experienced ozone standard violations in recent years.

It is possible to find examples to support either the point of view of the commenter or the point of view of EPA. However, EPA's redesignation policy is clear that EPA cannot redesignate a subarea of a major urbanized area to attainment while other portions of the urban area and its adjacent surroundings are experiencing violations of the ozone NAAQS.

#### *Comment*

A commenter contends that the EPA contradicts itself when it stated that, due to prevailing winds during the ozone season, ozone precursor emissions from DuPage and Kane Counties can contribute significantly to ozone NAAQS exceedances which continue to be observed in the Chicago area. In another part of the October 11, 1983, proposed rulemaking EPA stated that ozone precursor emission reductions made in the Chicago area and upwind of the Elgin site could account for the ozone level reductions at the Elgin site since 1979. The commenter believes that emission reductions from the Chicago area cannot account for ozone level improvements in Kane and DuPage Counties at the same time that emissions from these Counties are affecting other locations in the Chicago area.

#### *EPA Response*

In its comments, EPA never implied that both conditions would be in effect on the same days. Obviously, on a given day, the Kane and DuPage County ozone

monitoring sites are unlikely to be both predominantly upwind and predominantly downwind of the major portion of the Chicago area. (It should be noted that some meteorological conditions could exist which would produce air recirculations resulting in this condition from an ozone production standpoint.) However, there are days when these sites are downwind of major ozone precursor emission areas in the Chicago urban area and other days when the ozone precursor emission sources in Kane and DuPage Counties are upwind (see next comment/response) of ozone standard violation sites in other portions of the Chicago area. Since the prevailing summertime/daytime winds are from the south through west, the latter condition may dominate but is not all inclusive.

To the extent that VOC emission reductions have occurred in the Chicago area and throughout the rest of Illinois, some peak ozone level reductions may be expected in Kane and DuPage Counties. This does not rule out the possibility that VOC emissions from these Counties are contributing to ozone standard exceedances at other locations. Therefore, EPA does not find its remarks to be contradictory.

#### *Comment*

A commenter points out the Illinois Chamber of Commerce has submitted extensive meteorological and trajectory analyses of the ozone exceedances in the Chicago/southeastern Wisconsin area. The commenter believes these analyses show that the higher ozone standard exceedances were not influenced by the emissions from DuPage and Kane Counties.

#### *EPA Response*

EPA has reviewed the trajectory analysis submitted by the Illinois Chamber of Commerce. Concerning this analysis, particularly with regards to the effects of VOC emissions from Kane and DuPage Counties, EPA makes the following remarks:

1. The analysis only covers ozone exceedances on three days (July 21, 1979; July 17, 1981; and August 1, 1981). Such a sparse coverage of ozone standard exceedance days cannot be assumed to provide conclusive evidence that VOC emissions from Kane and DuPage Counties do not contribute to ozone standard exceedances on other days. The trajectories discussed in the analysis exhibit a considerable day-to-day variation. This variation implies that trajectories passing over Kane and DuPage Counties cannot be ruled out without examining the effective

meteorology for all exceedances observed in the Chicago area.

2. The documentation of the trajectory analysis does not give the basis for the derivation of the trajectories. EPA's experience with the derivation of trajectories is that the sparsity of wind data, particularly above the ground surface level, as well as the confounding effect of mixing and dispersion create substantial uncertainties in the actual pathway of any given parcel of air.

3. The analysis implies that only those precursor emissions occurring exactly along the calculated trajectories contribute to the observed ozone standard exceedances. In reality, dispersion and wind shear with height in the mixing layer would have led to the ozone contributions from precursor emissions from an area covered by a wide range of trajectories on a given day.

4. Several of the trajectories discussed in the analysis pass close to Kane and DuPage Counties on several of the days. Given the uncertainties in the actual paths and effective horizontal spreads of the trajectories, it could be argued that the analysis provides some evidence that emissions from Kane and DuPage Counties may contribute to exceedances at other locations in the Chicago area.

5. The commenter and the analysis ignore the fact that ozone exceedances probably do not occur only at the monitoring sites on the high ozone days. Due to the area nature of ozone concentrations, ozone exceedances could be expected over significant areas on the peak ozone days. Some of the backtraced wind trajectories drawn from these exceedance areas could point to the possible impacts of VOC emissions from Kane and DuPage Counties in producing downwind ozone standard exceedances.

It should be noted that EPA has in the past conducted analysis of peak ozone concentrations and meteorological data from a limited number of ground-level sites to determine peak downwind ozone sites for the Chicago area. This analysis was much more extensive, in terms of the number of days considered, than that cited by the commenter. The results of this analysis indicated that ozone exceedances can occur under a wide variety of wind directions pointing to ozone standard exceedance contributions from a large geographical area. EPA concluded from this analysis that VOC emissions from the Chicago area as a whole contribute to significant downwind ozone standard exceedances.

#### *Comment*

A commenter states that EPA's notice of proposed rulemaking rests on a

flawed legal position. Under the Clean Air Act the states have the responsibility for designating areas as attainment or nonattainment. EPA's responsibility in this process is secondary. EPA's proposed action in this case is arbitrary and capricious and contrary to EPA's authority under the Act.

#### *EPA Response*

Section 107(d)(5) of the Clean Air Act makes it clear that a state may seek to revise its list of attainment status designations at any time. See also 40 CFR 81.300 (1983). It also gives the Administrator authority to promulgate the list "with such modifications as he deems necessary." See Section 107(d)(2). Subsection (d)(2) also makes it clear that he can modify the redesignation requested by the state if he thinks it is "inappropriate". As explained in the proposal and final action notices, EPA has determined that, in its opinion, the redesignations of Kane and DuPage Counties requested by the State of Illinois are inappropriate.

#### *State Submittal (Other Than Public Comment)*

Since EPA proposed rulemaking, Illinois submitted additional modeling data correcting input data problems previously noted by EPA for the CO nonattainment area of Cook County. These data were not submitted in response to EPA's proposed redesignation but were submitted in response to EPA's comments on the Illinois 1982 CO SIP.

#### *EPA Response*

EPA has reviewed the modeling data and concludes that it adequately supports revising the majority of the expressway related CO nonattainment areas in Cook County to attainment. Therefore, EPA is revising Cook County to attainment for CO with the exception of those areas noted in the conclusion portion of this notice.

#### *Conclusion*

Based on EPA's review of the States' redesignation request along with the additional support data and consideration of public comments, EPA is taking the following action on the State's redesignation request:

1. *Redesignation to attainment (approval of request).* EPA is redesignating the central core area of Cook County (Wacker Drive on the north and west, Michigan Avenue on the east and Harrison St. on the south) from nonattainment to attainment for nitrogen dioxide.



EPA is redesignating the areas along the expressway corridors in Cook County (with exception of those areas listed below) from nonattainment to attainment. EPA is also redesignating the nonattainment area in the City of Peoria (area bounded by Green St. on the northeast and east, Water Street on the southeast, Liberty Street on the southwest, Franklin St. on the west, and Perry Avenue on the northwest) from nonattainment to attainment for CO.

2. *No change (denial of request).* EPA is denying the State's request to redesignate Kane and DuPage Counties from nonattainment to attainment for ozone.

In addition, EPA is denying the State's request to redesignate the following area of Cook County from nonattainment to attainment for CO: the Dan Ryan Expressway between 71st and 75th Streets; and the Dan Ryan Expressway between 47th and 55th Streets.

**Note.**—This action does not affect the current designation of the following area in Cook County: Core area (Define by Lake Shore Drive on the east, Roosevelt Road on the south, Halstead St. on the west, and Lake St. and Wacker Drive on the north). The State did not request that this area be redesignated and available data support maintaining the current nonattainment designation.

#### Removal of Conditional Approval

EPA approved the 1979 Part D NO<sub>2</sub> attainment plan for Illinois on the condition that the State conduct analyses to determine the need to revise the SIP and develop any necessary additional regulatory proposals, promulgate any necessary regulations and submit them to EPA. Because the only nonattainment area in the State for NO<sub>2</sub> has achieved attainment of the standard and is being redesignated to attainment, the condition is no longer relevant and should be removed from the codification. Therefore, EPA is deleting reference to the condition in 40 CFR 52.728.

The Office of Management and Budget has exempted this rule from the requirements of section 3 of Executive Order 12291.

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by August 13, 1984. This action may not be challenged later in proceedings to enforce its requirements. (See 307(b)(2).)

#### List of Subjects in 40 CFR Part 81

Air pollution control, National parks, Wilderness areas.

This notice is issued under authority of sections 107(d) and 301 of the Act, as amended (42 U.S.C. 7407(d) and 7601).

Dated: May 31, 1984.  
William D. Ruckelshaus,  
Administrator.

#### PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

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

##### Subpart O—Illinois

##### § 52.728 [Amended]

Section 52.728 is amended by removing and reserving the introductory

text of paragraph (a) and paragraph (a)(1).

#### PART 81—DESIGNATION OF AREAS FOR AIR QUALITY PLANNING PURPOSES

Illinois Part 81 of Chapter I, Title 40 of the Code of Federal Regulations is amended by revising all of Peoria and portions of Cook County to attainment for CO and all of Cook County to attainment for NO<sub>2</sub> as follows: (There is no change to Tazewell County).

##### § 81.314 Illinois.

\* \* \* \* \*

#### ILLINOIS—CO

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
AQCR 65: Peoria County.....		X
Tazewell County: Cities of East Peoria and Grove Center (portions of Peoria and Grove Township) All other Township.....		X
AQCR 67: Cook County: Dan Ryan Expressway between 71st and 75th Streets, and between 47th and 55th Streets.....	X	
Core area (defined by Lakeshore Drive on the east, Roosevelt Road on the south, Halstead Street on the west, and Lake Street and Wacker Drive on the north).....	X	
Remainder of Cook County.....		X
AQCR 67: Cook County.....		X

[FR Doc. 84-15162 Filed 6-11-84; 8:45 am]  
BILLING CODE 6550-50-M

#### 40 CFR Part 147

[WH-FRL-2593-5]

#### Nebraska Department of Environmental Control; Underground Injection Control Program Approval

AGENCY: Environmental Protection Agency.

ACTION: Approval of State Program.

**SUMMARY:** The State of Nebraska has submitted an application under section 1422 of the Safe Drinking Water Act for the approval of an Underground Injection Control (UIC) program governing Classes I, III, IV, and V injection wells. After careful review of the application and comments received from the public, the Agency has

determined that the State's program to regulate Classes I, III, IV, and V injection wells meets the requirements of section 1422 of the Act. Therefore, this application is approved.

**EFFECTIVE DATE:** This regulation shall be promulgated for purposes of judicial review at 1:00 p.m. eastern time on June 28, 1984, and shall become effective on that date.

**FOR FURTHER INFORMATION CONTACT:** Angela Ludwig, Ground Water Section, U.S. Environmental Protection Agency, Region VII, 324 East 11th Street, Kansas City, Missouri 64106. PH (816) 374-6514.

**SUPPLEMENTARY INFORMATION:** Part C of the Safe Drinking Water Act (SDWA) provides for an Underground Injection Control (UIC) program. Section 1421 of the SDWA requires the Administrator to

promulgate minimum requirements for effective State programs to prevent underground injection which endangers drinking water sources. The Administrator is also to list in the Federal Register each State for which in his judgment a State UIC program may be necessary. Each State listed shall submit to the Administrator an application which contains a showing satisfactory to the Administrator that the State: (i) has adopted, after reasonable notice and public hearings, a UIC program which meets the requirements of regulations in effect under Section 1421 of the SDWA; and (ii) will keep such records and make such reports with respect to its activities under its UIC program as the Administrator may require by regulations. After reasonable opportunity for public comment, the Administrator shall by rule approve, disapprove, or approve in part and disapprove in part the State's UIC program.

The State of Nebraska was listed as needing a UIC program on June 19, 1979 (44 FR 35288). On March 4, 1982, the State submitted an application under Section 1425 for the regulation of Class II injection wells and an application under Section 1422 for the regulation of Classes I, III, IV, and V injection wells. The program for Classes I, III, IV, and V injection wells would be administered by the Nebraska Department of Environmental Control (NDEC). On March 26, 1982, EPA published notice of its receipt of the applications, requested public comments, and scheduled a public hearing on the Nebraska UIC programs as submitted (47 FR 13011). A public hearing was held on April 29, 1982, in Sidney, Nebraska. (The Class II program was approved by EPA on February 3, 1983).

After careful review of this application, I have determined that the Nebraska UIC program submitted by the NDEC to regulate Classes I, III, IV, and V injection wells meets the requirements of Section 1422 of the SDWA, and hereby approve it. The effect of this approval is to establish this program as the applicable underground injection control program under the SDWA for the State of Nebraska.

This program replaces the existing EPA-administered program. EPA promulgated the EPA-administered program, published May 11, 1984 (49 FR 20210), in order to comply with the requirement of the SDWA to promulgate a federally-administered program if a state-administered program cannot be approved within a certain time. Now that EPA has determined that the state-

administered program meets all applicable federal requirements, the Agency is withdrawing the EPA-administered program and establishing the state-administered program as the applicable UIC program in the state, because of the preference in the SDWA for state administration of UIC programs.

This approval will be codified in 40 CFR Part 147.1401. State statutes and regulations that contain standards, requirements, and procedures applicable to owners or operators are incorporated by reference. These provisions incorporated by reference, as well as all permit conditions or permit denials issued pursuant to such provisions, are enforceable by EPA pursuant to section 1423 of the SDWA.

In this application, Nebraska chooses not to assert jurisdiction over Indian lands or reservations for purposes of its UIC program. Therefore, the EPA will, at a future date, prescribe a UIC program governing injection wells on any Indian lands or reservations.

Since this approval, in large part, simply approves as the Federal UIC program State regulations and requirements already in effect under State law, EPA is publishing this approval effective two weeks after the date of publication in the Federal Register. This will enable Nebraska to begin issuing UIC permits for injection wells under the Federally approved program at the earliest possible date.

The terms listed below comprise a complete listing of the thesaurus terms associated with 40 CFR Part 147, which sets forth the requirements for a State requesting the authority to operate its own permit program of which the Underground Injection Control program is a part. These may not all apply to this particular notice.

#### List of Subjects in 40 CFR Part 147

Indians—lands, Reporting and recordkeeping requirements, Intergovernmental relations, Penalties, Confidential business information, Water supply.

#### OMB Review

The Office of Management and Budget has exempted this rule from the requirements of Section 3 of Executive Order 12291.

#### Certification Under the Regulatory Flexibility Act

Pursuant to the provisions of 5 U.S.C. 605(b), I certify that approval by EPA under Section 1422 of the Safe Drinking Water Act of the application by the Nebraska Department of Environmental Control will not have a significant

economic impact on a substantial number of small entities, since this rule only approves State actions. It imposes no new requirements on small entities.

Dated: June 6, 1984.

William D. Ruckelshaus,  
Administrator.

Title 40 of the Code of Federal Regulations is amended as follows:

### PART 147—STATE UNDERGROUND INJECTION CONTROL PROGRAMS

#### Subpart CC—Nebraska

Amend 40 CFR part 147 by revising § 147.1401 to read as follows:

§ 147.1401 State-administered program—Class I, III, IV, and V wells.

The UIC program for Class I, III, IV, and V wells in the State of Nebraska is the program administered by the Nebraska Department of Environmental Control, approved by EPA pursuant to section 1422 of the SDWA. Notice of this approval was published in the Federal Register on June 12, 1984; the effective date of this program is June 26, 1984. This program consists of the following elements, as submitted to EPA in the State's program application.

(a) *Incorporation by reference.* The requirements set forth in the State statutes and regulations cited in this paragraph are hereby incorporated by reference and made a part of the applicable UIC program under the SDWA for the State of Nebraska. This incorporation by reference was approved by the Director of the Federal Register effective June 26, 1984.

(1) Nebraska Environmental Protection Act, Revised Statutes of Nebraska section 81-1502, 81-1506, 81-1519, and 81-1520.

(2) Nebraska Department of Environmental Control, Title 122—Rules and Regulations for Underground Injection and Mineral Production Wells, Effective Date: February 16, 1982, Amended Date: November 12, 1983; as amended by amendment approved by the Governor on March 22, 1984.

(b) *Other Laws.* The following statutes and regulations although not incorporated by reference, also are part of the approved State-administered program:

(1) Nebraska Environmental Protection Act, Revised Statutes of Nebraska section 81-1501 through 81-1533 (1981 and Supp. 1983).

(c)(1) The Memorandum of Agreement between EPA Region VII and the Nebraska Department of Environmental Control, signed by the EPA Regional Administrator on July 12, 1982.



(2) Addendum to Underground Injection Control Memorandum of Agreement signed by the EPA Regional Administrator on July 12, 1982.

(3) Amendments to the Memorandum of Agreement signed by the EPA Regional Administrator on November 22, 1983.

(d) *Statement of Legal Authority.*

(1) "Nebraska Underground Injection Control Program, Attorney General's Statement for Class I, III, IV, and V Wells", signed by Assistant Attorney General for Attorney General of Nebraska, as submitted with "State of Nebraska Request for Administration of UIC Program, January 28, 1982;

(2) Letter from Attorney General (of Nebraska), by Assistant Attorney General, to Director, (Nebraska) Department of Environmental Control, August 7, 1981;

(3) Letter from Attorney General (of Nebraska), by Assistant Attorney General, to Director, (Nebraska) Department of Environmental Control, April 29, 1982;

(4) Letter from Attorney General (of Nebraska), by Assistant Attorney General, to Legal Counsel, (Nebraska) Department of Environmental Control, October 18, 1983.

(e) The Program Description and any other materials submitted as part of the original application or as supplements thereto.

[FR Doc. 84-15547 Filed 6-11-84; 8:45 am]

BILLING CODE 6560-50-M

## 40 CFR Part 712

[OPTS-82014; TSH-FRL 2595-7]

**Chemical Information Rules; Manufacturers Reporting—Preliminary Assessment Information, Addition of Chemicals**

### Correction

In FR Doc. 84-14183 beginning on page 22284 in the issue of Tuesday, May 29, 1984, make the following corrections on page 22285. The third and fourth entries in the table in the middle column should have read:

CAS Numbers	Chemical substances
3322-93-8	1,2-Dibromo-4-(1,2-dibromethyl) cyclohexane.
25640-78-2	Isopropyl biphenyl.

BILLING CODE 1505-01-M

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 94

[Docket No. 19671; FCC 84-234]

### Various Methods of Transmitting Program Material to Hotels and Similar Locations; and Use of the Business Radio Service for the Transmission of Motion Pictures or Other Program Material to Hotels or Other Similar Points

**AGENCY:** Federal Communications Commission.

**ACTION:** Denial of petition for reconsideration and motion for partial stay.

**SUMMARY:** In June 1983 the Commission released a *Memorandum Opinion and Order*, published on July 18, 1983, 48 FR 32578, which amended the Commission's Rules to (1) permit licensees to distribute their products and services to individual residences, (2) use digital classes of emission, and (3) prohibit the delivery of video entertainment material to the licensee's customers in the Private Operational-Fixed Microwave Service (OFS) using 2.5 GHz frequencies until August 1985. As a result of the new rules, the Commission dismissed approximately 1400 pending applications for the 2.5 GHz band and opened up a new filing period for applicants seeking to distribute products and services other than video entertainment material. On reconsideration, the Commission affirms its decision to dismiss the 1400 pending applications and to continue processing the newly filed applications for the 2.5 GHz band. This action is necessary to address the issues raised in the Petition for Reconsideration and Motion for Partial Stay in this proceeding.

**FOR FURTHER INFORMATION CONTACT:** Mr. Frederick J. Day/Ms. Sandra Donnell, Private Radio Bureau (202) 634-2443.

### Memorandum Opinion and Order

In the matter of various methods of transmitting program material to hotels and similar locations and use of the business radio service for the transmission of motion pictures or other program material to hotels or other similar points; Docket No. 19671.

Adopted: May 21, 1984.

Released: June 5, 1984.

By the Commission. Commissioner Rivera dissenting in part and issuing a separate statement.

### I. Introduction

1. On June 23, 1983 the Commission released a *Memorandum Opinion and*

*Order*<sup>1</sup> in this proceeding responding to the issues raised in various petitions for reconsideration of the *First Report and Order*.<sup>2</sup> On reconsideration, the Commission affirmed the principle established in the *First Report and Order* that licensees could use Private Operational-Fixed Microwave Radio Service (OFS) frequencies to distribute their own products and services to their customers. However, the Commission adopted new rules governing use of the OFS frequencies in the 2.5-2.69 GHz (2.5 GHz) band for these private distribution systems. In view of the new rules adopted on reconsideration, the Commission determined to dismiss the pending applications at 2.5 GHz and open a new filing period.

2. Satellite Broadcasting Company, Inc. (SBCI) filed a Petition for Reconsideration of the *Memorandum Opinion and Order* on August 17, 1983. Also, on September 20, 1983, SBCI filed a Motion for Partial Stay of the decisions reached in the *Memorandum Opinion and Order*.<sup>3</sup>

### II. Background

3. The *First Report and Order*, *supra*, amended Part 94 of the Commission's Rules to allow eligibles in the Private Operational-Fixed Microwave Radio Service to operate private local radio distribution systems to deliver to their customers such products as motion pictures and music or services such as computerized information. Three channels in the 2.5 GHz band were made available for point-to-multipoint transmissions while certain other available OFS bands were designated for point-to-point delivery of products and services. The Commission determined that only one 2.5 GHz transmit channel would normally be assigned to any one licensee at each location.

4. The decision to allow Private Operational-Fixed Service licensees to deliver their products to customers represented a departure from the Commission's traditional regulation of the OFS frequencies. Previously, OFS systems had been limited essentially to providing point-to-point communications within a single organization for conveying information and instructions related to the main business of the

<sup>1</sup>*Memorandum Opinion and Order*, Docket No. 19371 (FCC 83-245), released June 23, 1983, —FCC 24—, 48 FR 32,573 (July 18, 1983).

<sup>2</sup>*First Report and Order*, Docket No. 19671 (FCC 81-210), released May 15, 1981, 46 FCC 2d 289, 45 FR 27,833 (May 22, 1981).

<sup>3</sup>The Commission received no comments on or oppositions to either the Petition for Reconsideration or Motion for Partial Stay filed by SBCI.

licensee. With adoption of the *First Report and Order*, we expanded the scope of the Private Microwave Service to encompass microwave links between licensees and their customers for the delivery of products and services. However, the *First Report and Order* prohibited licensees from using OFS frequencies at 2.5 GHz to provide programming services to individual homes and apartment houses. The Commission imposed this restriction because it had initiated an independent inquiry in Docket No. 80-603 concerning the appropriate regulatory classification for point-to-multipoint transmission of subscription direct-to-home programming services.<sup>4</sup> In view of this ongoing inquiry, the Commission determined that it should not authorize private OFS licensees to deliver programming to homes and apartment houses until the question concerning the regulatory classification for such services was resolved.

5. In response to the *First Report and Order*, the Commission received approximately 1,400 applications from about sixty different entities seeking to provide entertainment and information services to customers on the three OFS channels available in the 2.5 GHz band. Some of these applicants proposed to provide services such as movies to hotels, others proposed to distribute data to businesses, and some indicated an intent to distribute entertainment and information material to private residences, notwithstanding the express prohibition against such services. Many other applicants did not specify in their applications the type of material to be distributed or the intended receiving locations.

6. Two parties filed Petitions for Reconsideration of the *First Report and Order*. The Central Committee on Telecommunications of the American Petroleum Institute (API) objected to the Commission's determination that the 2.5 GHz band should be made available for the delivery of products and services, and more particularly video entertainment material, to customers. API argued that opening up the OFS spectrum to communications directed toward mass audiences would disadvantage licensees who depended on the frequencies for internal business and institutional communications. On the other hand, Cablecom Corporation (Cablecom) filed a petition which argued that the conditions imposed on private distribution services were too restrictive. Cablecom urged the Commission to delete the prohibition

placed on delivery of products to homes and apartment houses. Cablecom also objected to the restriction limiting licensees to one channel per market area.

7. In the *Memorandum Opinion and Order* released June 23, 1983 the Commission reconsidered the *First Report and Order* and significantly revised the rules governing use of the 2.5 GHz frequencies for point-to-multipoint distribution of products and services to customers. First, the Commission decided to prohibit, for a two-year period, the delivery of video entertainment material over 2.5 GHz OFS frequencies. Second, the Commission removed the restriction against delivery of products and services to individual residences and apartment houses.<sup>5</sup> Third, the Commission changed the rules to make it clear that the use of digital classes of emission is permitted on OFS frequencies at 2.5 GHz. The Commission also determined to dismiss the 1,400 applications then pending for 2.5 GHz because it would be neither equitable nor administratively practical to proceed with processing the pending applications in view of the significant rule changes adopted on reconsideration. Instead, it determined that an entirely new filing period should be opened to allow all interested parties to file applications consistent with the rules being adopted. SBCI's Petition for Reconsideration and Motion for Partial Stay are directed solely to the Commission's determination that all of the 1,400 applications pending for 2.5 GHz should be dismissed.

### III. Petition for Reconsideration

8. SBCI views the Commission's *Memorandum Opinion and Order* as a reasonable attempt to balance the competing demands for the 2.5 GHz spectrum. However, SBCI objects to the decision to dismiss all of the 2.5 GHz applications filed prior to adoption of the *Memorandum Opinion and Order*. SBCI argues that section 309(a) of the

<sup>4</sup> The *Memorandum Opinion and Order* stated that there was no longer any need to defer the decision regarding the regulatory classification of programming which would be transmitted to private residences by OFS licensees. The Commission concluded that the OFS services are "addressed" communications intended for, and directed to, specific points of reception—the licensee's paying customers—in a manner similar to subscription FM radio services. The Commission determined, therefore, that OFS entertainment transmissions would fall within the category of "hybrid" communications, i.e., communications exhibiting characteristics of both broadcasting and point-to-point services. As such, the OFS licensees would not have to comply with the statutory provisions applicable to traditional broadcasting services. 48 Fed. Reg. at 32,583.

Communications Act of 1934, as amended, requires the Commission to conduct an individualized review of the applications to determine whether each application complies with applicable Commission rules and policies.

9. Shortly after adoption of the *First Report and Order*, SBCI applied for licenses to operate numerous OFS stations across the country to deliver a variety of entertainment and non-entertainment material to customers. In most instances, SBCI filed two or three applications for 2.5 GHz stations in each community, each specifying a different channel. SBCI now advises us that it had planned to use at least one channel in each community for the type of data, teletext, and videotext services which are not subject to the two-year video entertainment prohibition adopted in the *Memorandum Opinion and Order*. Thus, according to SBCI, at least some of their applications filed prior to the *Memorandum Opinion and Order* substantially complied with the rules ultimately adopted by the Commission on reconsideration or could have been brought into compliance with these rules by the submission of non-substantial amendments.

10. In support of its petition, SBCI contends that section 309(a) of the Act obligates the Commission to examine individually each pending application to determine whether the public interest, convenience, and necessity would be served by granting the application.<sup>6</sup> In SBCI's view, section 309(a) limits the Commission, in its review of pending applications, to essentially three options: granting the application, designating it for hearing, or dismissing it for substantial non-compliance with applicable Commission Rules. Regardless of the ultimate result, SBCI contends, the Commission's review must be individualized in order to satisfy the requirements of section 309 of the Act.

11. SBCI concedes in its petition that the Commission has statutory discretion to adopt reasonable rules and administrative procedures to effectuate its objectives. Included within this discretion, we conclude, is the ability to specify application submission processes in order to assure equitable and orderly procedures. SBCI argues

<sup>6</sup> Section 309(a) of the Communications Act provides that "the Commission shall determine, in the case of each application filed with it . . . whether the public interest, convenience, and necessity will be served by the granting of such application, and, if the Commission, upon examination of such application and upon consideration of such other matters as the Commission may officially notice, shall find that public interest, convenience, and necessity would be served by the granting thereof, it shall grant such application." 47 U.S.C. 309(a).

<sup>4</sup> Notice of Inquiry, Gen. Docket 80-603, 45 FR 72719 (November 3, 1980).

that the Commission's decision to dismiss the pending applications exceeded the bounds of reasonableness and deprived applicants of their fundamental right to a specific review of their applications. The petitioner states that there were less severe procedural mechanisms available by which the Commission could have conducted an individual review of the applications without imposing undue burdens on the processing staff. As an example, SBIC suggests that the Commission could have issued a public notice requiring all applicants to submit non-substantial amendments which would modify their applications to provide the additional information required by the *Memorandum Opinion and Order*.

#### IV. Discussion

12. We find SBIC's arguments unpersuasive. We agree with SBIC that when ruling upon the merits of an application, section 309(a) requires that we either grant or deny the application or else designate it for hearing. In this instance, however, our action was not a final decision upon the merits of the applications. Our dismissal of these applications was without prejudice. Our primary purpose in dismissing these applications was to structure our procedures for processing in the manner which would best serve the public interest. As the Supreme Court has stated, "we do not read the hearing requirement (of section 309 of the Act) as withdrawing from the power of the Commission the rulemaking authority necessary for the orderly conduct of its business."<sup>7</sup> Furthermore, section 4(i), 4(j), and 303(r) of the Communications Act delegate to the Commission adequate authority to dismiss the 1,400 pending applications when essential to the "proper dispatch of business and the ends of justice."<sup>8</sup>

13. Admittedly, the dismissal of the subject applications deprived all existing applicants including SBIC of the "cut-off" protection they had obtained under § 1227(b)(4) of the Rules. Nevertheless, all the applicants were treated comparably and, to the extent they refiled their applications, obtained similar rights.<sup>9</sup> More importantly, however, "cut-off" protection is not an absolute property right. Any "cut-off" protection our applicants receive is incidental to the primary purpose of our "cut-off" rules, i.e. the orderly

functioning of our processing of applications. The Commission has consistently indicated that under the appropriate circumstances an applicant's "cut-off" protection may be withdrawn when the Commission finds that the public interest so requires. See *Faith Center*, 51 RR 2d 615, 621 (1982) (89 FCC 2d 1054 (1982)); *Bronco Broadcasting Company, Inc.*, 58 FCC 2d 909, 911 (1976); see also *Carlisle Broadcasting Associates*, 59 FCC 2d 885 (1976). To conclude otherwise would be tantamount to elevating the "cut-off" protection claimed by one petitioner to a position superior to the Commission's statutory obligation to "make rules and regulations and prescribe such restrictions and conditions which in its view are necessary to carry out the provisions of the Act . . ."<sup>10</sup>

14. Even though many of the applicants<sup>11</sup> may have achieved some "cut-off" protection, the public interest clearly warrants our creating a new "cut-off" period. The changes adopted in the *Memorandum Opinion and Order* dramatically altered the regulatory plan for the 2.5 GHz band. Under the new rules, licensees could distribute their products and services to individual residences and could use digital types of emission. For example, on reconsideration we removed the existing restriction limiting applicants to the use of A5 and F3 classes of emission; applicants can now use classes of emission more compatible with the transmission of data, such as A9Y or F9Y. Additionally, the new rules gave a clear priority, initially, to date and non-entertainment services. Unless the Commission had opened a new application filing period during which all prospective applicants would receive equal consideration for the frequencies, we would have disadvantaged at least two distinct classes of persons: (1) Those applicants who filed in compliance with the old rules but who, through no fault of their own, were not in substantial compliance with the new rules, and (2) those entities who elected not to file applications under the old rules, having been led to believe that they could not offer service to homes or could not transmit using digital emissions. Overall, we are convinced that the public interest is best served by an equitable approach that provides all interested applicants with an

opportunity to apply for the channels under clearly enunciated conditions.<sup>12</sup>

15. Of course, we could have achieved that same result by examining all the applications on file, dismissing those that were unacceptable under the new rules, and accepting any new or old, amended applications during a second "cut-off" period. However, as we indicated in our order dismissing the approximately 1,400 pending applications,

Our preliminary analyses show that virtually all of the 1,400 pending applications would have to be revised in one way or another to be acceptable under the rules we are now adopting. The process of scrutinizing each individual application now on file for defects, notifying each applicant of the defects, and receiving, logging, and filing the amendments submitted for each of the 1,400 applicants would severely tax the capabilities of the application processing staff. Therefore, recognizing that our decision significantly changes the operating rules for private OFS distribution systems at 2.5 GHz and in light of the overwhelming burden which would be placed on our staff resources by processing amendments to the existing applications, we have determined that it is necessary to dismiss all of the pending applications for 2.5 GHz distribution systems.<sup>13</sup>

In short, the administrative burden of having to send written notices to all the applicants to request amendments, process the amendments upon receipt, associate the amendments with the corresponding applications, and then review and evaluate the amendments for up to 1,400 applications would have been a complex and time-consuming process. We estimate that the entire process would have consumed at least 2,500 staff hours, or approximately twenty percent of all staff resources available for processing all OFS applications during the year.<sup>14</sup> Because we could achieve the same result with less administrative expense by dismissing all pending applications and permitting all interested applicants, both old and new, to submit applications, our processing approach was reasonable.

<sup>7</sup> *Radio Athens, Inc. v. Federal Communications Commission*, 431 F.2d 333, 404 (D.C. Cir. 1983).

<sup>8</sup> 43 FR at 32,594. All 1,400 applications were returned to the applicants shortly after release of the *Memorandum Opinion and Order*.

<sup>9</sup> The 2.5 GHz band represents only one of many frequency bands available to licensees in the Private Operational-Fixed Service. The other frequency bands available are: 923-923 MHz, 932-940 MHz, 1600-1630 MHz, 2130-2150 MHz, 2150-2160 MHz, 2160-2200 MHz, 2450-2550 MHz, 6325-6375 MHz, 10,500-10,600 MHz, 12,200-12,700 MHz, 12,700-13,200 MHz, 13,200-13,250 MHz, 17,700-19,700 MHz, 21,200-23,000 MHz, 31,000-31,200 MHz, 33,000-49,000 MHz, and other bands above 49,000 MHz. The Commission processes approximately 7,000 applications annually for these other frequency bands.

<sup>7</sup> *United States v. Storer Broadcasting Company*, 351 U.S. 192, 202 (1956).

<sup>8</sup> 47 U.S.C. 154(j).

<sup>9</sup> According to the Commission's records, SBIC has filed approximately 133 applicants for 2.5 GHz distribution systems since the new filing period for such applications opened on August 1, 1983.

<sup>10</sup> 47 U.S.C. 303(r).

<sup>11</sup> Because some of the pending applications were not in compliance with the old rules, some of them probably had not achieved any "cut-off" protection. See *Memorandum Opinion and Order*, 43 FR 32,572, 32,583-84 (July 18, 1983).

16. Finally, in passing, we also note that, contrary to SBCI's contention, existing applicants could not have responded to all the rule changes adopted on reconsideration merely by filing non-substantial amendments to the pending applications. For instance, as we previously indicated, one of the changes adopted on reconsideration removed the existing restriction limiting applicants to the use of A5 and F3 classes of emission. Thus, applicants could use classes of emission more compatible with the transmission of data, such as A9Y or F9Y. Under § 1,962 of the Rules, however, amendment of an application to specify a different class of emission is considered to be a substantial amendment (§ 1,962(c)) requiring further public notice (§ 1,962(f)) and a new period for the cross-filing of applications or the submission of petitions to deny.

17. Accordingly, we remain convinced that, under the circumstances, dismissal of all pending applications was a proper and equitable means of implementing the new rules. This decision was arrived at only after careful consideration of how the public interest would be best served. SBCI has failed to demonstrate otherwise. Therefore, for the reasons discussed above, SBCI's Petition for Reconsideration is denied.

#### V. Motion for Partial Stay

18. In its Motion for Partial Stay of the June 23, 1983 *Memorandum Opinion and Order*, SBCI asks the Commission to stay that portion of the decision which dismissed the 1,400 applications for 2.5 GHz which were pending at the time the *Memorandum Opinion and Order* was adopted. SBCI also requests that the Commission stay the processing of the applications filed in response to the new rules, pending disposition of SBCI's Petition for Reconsideration and its Notice of Appeal.<sup>15</sup> The underlying basis for SBCI's Motion is identical to the argument raised in the Petition for Reconsideration, i.e., that the Commission erred by not conducting an individualized review of each of SBCI's pending applications, in violation of section 309 of the Communications Act of 1934, as amended.

19. We note, as a preliminary matter, that the filing of a petition to review with the court of appeals does not of itself stay or suspend the operation of an agency order. 28 U.S.C. 2349(b). The 1,400 applications pending at the time the new rules were adopted have already been dismissed and in fact were

dismissed prior to our receipt of SBCI's Motion. The applications were returned to the applicants shortly after the *Memorandum Opinion and Order* was released. SBCI's Motion is therefore moot to the extent that it seeks to compel the Commission to retain all of the applications which had been filed under the earlier rules. Additionally, with adoption of this *Memorandum Opinion and Order*, we are denying SBCI's Petition for Reconsideration, thus rendering the Motion for Partial Stay moot insofar as it seeks a stay of the processing of the new applications until the issues raised in the Petition for Reconsideration are resolved.

20. Finally, SBCI asks the Commission to stay further processing of the newly filed applications, pending disposition of its Notice of Appeal. The United States Court of Appeals for the District of Columbia Circuit has recently enunciated the factors to be evaluated when considering motions for stay. According to the Court,

(T)he factors to be considered in granting interim relief are (1) whether the petitioner has made a strong showing that he is likely to prevail on the merits; (2) whether petitioner has shown that without such relief he will be irreparably injured; (3) whether a grant of relief will work irreparable harm on others; and (4) whether the public interest favors interim relief. See *Virginia Petroleum Jobbers Ass'n v. FPC*, 259 F. 2d 921, 925 (D.C. Cir. 1958) (per curiam). These considerations are interdependent. The persuasiveness of petitioner's threatened irreparable harm is greatly diminished when its prevention will visit similar harm on other interested parties. . . . And the required likelihood of success will vary with the balance of other factors. See *WMATC v. Holiday Tours, Inc.* 559 F. 2d 841, 843-44 (D.C. Cir. 1977).<sup>15</sup>

21. As noted above, the petitioner has not been denied the right to file applications under the new rules announced in the June 23, 1983 *Memorandum Opinion and Order*. To the contrary, SBCI took advantage of the new filing period announced in the *Memorandum Opinion and Order* by filing 133 applications. Moreover, the "cut-off" rights which the petitioner has established under § 1.227(b)(4) of the Commission's Rules by virtue of filing these new applications are comparable to the cut-off rights which it had established under the previous rules. Under the circumstances, we do not find that SBCI will suffer either substantial or irreparable harm. For the reasons stated earlier, we conclude that our actions implementing the *Memorandum Opinion and Order* were necessary and in the public interest. Further, even if

SBCI could demonstrate the likelihood of irreparable harm, we are not persuaded by its arguments regarding the other essential elements of the *Virginia Petroleum Jobbers Ass'n* test. We do not agree that SBCI has demonstrated that it is likely to prevail on the merits. Similarly, we conclude that SBCI has not shown that the public interest favors interim relief. Under the balancing test set forth in *Ambach v. Bell*, we find the public interest considerations inherent in the other three elements of the *Virginia Jobbers* analysis clearly outweigh the harm which SBCI claims it will suffer. In our view, therefore, the public interest favors continued processing of the applications filed under the new rules. The three 2.5 GHz OFS channels have been largely unoccupied during the duration of this proceeding, which began in 1973. We do not think the interests of the public are served by further delays in use of this valuable spectrum. Accordingly, we determine that SBCI's Motion for Partial Stay should be denied.

#### VI. Ordering Clause

22. In view of the foregoing, it is ordered that the Petition for Reconsideration and Motion for Partial Stay filed by Satellite Broadcasting Company, Inc. are denied. It is further ordered that this proceeding is terminated.

Federal Communications Commission,  
William J. Tricarico,  
Secretary.

Separate Statement of Commissioner Henry M. Rivera Dissenting in Part

Re: *Memorandum Opinion and Order Denying Reconsideration in Docket No. 19871*  
In view of the recent crystallization of my thoughts on the subject of regulatory classification,<sup>1</sup> I believe that programming transmitted directly to the general public in the operational fixed service must be classified as broadcasting. Therefore, I dissent to this *Memorandum Opinion and Order* to the extent that it fails to correct, *sua sponte*, the error of classifying these OFS transmissions as "hybrid" services.<sup>2</sup>

[FR Doc. 84-15530 Filed 6-11-84; 8:45 am]  
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<sup>1</sup> See Remarks of Commissioner Henry M. Rivera before ALI-ABA Course of Study on Communications Law: The New Regulatory and Technological Framework, Washington, D.C., March 29, 1984.

<sup>2</sup> The underlying *Memorandum Opinion and Order* in this docket determined that programming transmitted to private residences by OFS licensees were "hybrid" communications and, as such, exempt from statutory broadcast regulation. See 48 Fed. Reg. at 32, 583 n.24. The instant *Memorandum Opinion* leaves that conclusion undisturbed.

<sup>15</sup> Notice of Appeal was filed August 17, 1983. *Satellite Broadcasting Co. v. Federal Communications Commission*, No. 83-1871 (D.C. Cir. filed August 17, 1983).

<sup>16</sup> *Ambach v. Bell*, 686 F. 2d 974, 979 (D.C. Cir. 1982).

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 26

## Public Entry and Use; Ruby Lake National Wildlife Refuge, Nevada

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** This rule issues revised regulations governing boating on Ruby Lake National Wildlife Refuge (NWR), to permit a five-year research effort that will evaluate the effects of powerboating (10 horsepower or less) on redhead and canvasback duck broods. The Service will extend the season for motorized boating in the South Sump of Ruby Lake NWR for approximately two weeks, on a limited basis. Powerboating will begin this year on July 15, 1984. The design of the research study requires the early opening to be in effect in alternate years: 1984, 1986, and 1988. The original August 1 date will be observed in 1985 and 1987. This alternate-year opening scheme will allow appropriate research treatments to be applied during periods of nonmotorized boating from July 15 to August 1.

**EFFECTIVE DATE:** July 15, 1984.

**FOR FURTHER INFORMATION CONTACT:** Rollin F. Sparrowe, Director, Division of Wildlife Research, U.S. Fish and Wildlife Service, 18th and C Streets NW., Washington, D.C. 20240 (telephone 202-653-8762).

**SUPPLEMENTARY INFORMATION:** Ruby Lake NWR was established on July 2, 1938, by Executive Order No. 7923, as a refuge and breeding ground for migratory birds and other wildlife. The refuge supports the densest nesting population of canvasbacks in North America, and is the only major canvasback breeding area in the western United States. Redhead duck production has been estimated to nearly equal canvasback production at Ruby Lake. In all, fifteen different species of waterfowl nest on the refuge.

At the same time, and compatible with Ruby Lake's high value to waterfowl, the refuge has a long history of boating use. Boats have been used for fishing on the South Sump since the mid-1940's. To protect waterfowl and other refuge resources and to ensure continued compatibility of recreational boating with the major purposes for which Ruby Lake NWR was established, the Service has regulated boating on the South Sump of Ruby Lake since the 1950's. Much of the basis for developing boating regulations for Ruby Lake and

for determining compatibility has been the reliance on biological data obtained on the effects of boating on canvasback and redhead duck nesting activity. Because the Service does not have as much data on the effects of powerboating on brood behavior and survival as it does for the effects on nesting, it will conduct this research. The additional data will further enhance the Service's waterfowl management capability and provide a biologically sound basis for determining the effects and assuring the compatibility of recreational boating.

The study will be conducted in the South Sump of Ruby Lake NWR for a five-year period. This first year is a pilot year during which techniques will be developed, equipment will be field tested and requisite initial observations of brood behavior in response to disturbances from powerboats will be made.

In order to permit this and allow replicate testing among years, the basic study design uses alternate annual powerboating dates beginning with a July 15 opening in 1984; then August 1, 1985; July 15, 1986; August 1, 1987; and July 15, 1988. Nonmotorized boating use will remain the same each year, opening June 15. In order to implement the research study, special regulations contained in 50 CFR Part 26 have been revised to reflect the alternate year opening scheme.

The policy of the Department of the Interior is, whenever practicable, to afford the public an opportunity to participate in the rulemaking process. On March 29, 1984, the proposed rule to change the motorized boating dates to facilitate the research proposal was published in the Federal Register (49 FR 12285), with a comment date of April 30, 1984. In response to requests for an extension of the comment period, on May 7 a notice was published in the Federal Register (49 FR 19363), extending the comment period to May 15, 1984. Written comments were received and are considered in the following section.

#### Responses to Comments Received

A total of 24 written comments were received in response to the proposed rulemaking, 5 from organizations and 19 from individuals. One telephone call was also received. Substantive comments are outlined and responded to below.

**Issue 1:** Commenters felt that the increased boating activity that is part of the research program could be biologically disruptive and they assert that the Fish and Wildlife Service has failed to carry out certain

responsibilities for managing Ruby Lake NWR as mandated by the National Wildlife Refuge System Administration Act, 16 U.S.C. 668dd, and the Refuge Recreation Act, 16 U.S.C. 460k, and confirmed by the decisions of the United States District Court for the District of Columbia in *Defenders of Wildlife v. Andrus*, 11 ERC 2033 (D.D.C. 1978) and 455 F. Supp. 446 (D.D.C. 1978). These mandate that refuges shall not be used for forms of recreation that are not directly related to the primary purposes; and functions of the refuge until the Secretary has determined that such recreational use will not interfere with the primary purposes for which the area was established, and that funds be available for the development, operation and maintenance of the permitted forms of recreation. Further, recreation may be permitted only after the Secretary makes a determination that such use is compatible with the major purposes for which the refuge was established.

**Response:** The Service will continue to fulfill its responsibilities for the primary management of Ruby Lake NWR as a waterfowl production area. It has been the Service's contention that, if properly regulated, incidental recreational boating on Ruby Lake NWR will not interfere with this primary purpose. In addition, funds are available within the annual refuge budget for Ruby Lake for the administration of the boating activity. The research study, other than for administration of the expanded boat use, will be funded from Service sources outside the annual Ruby Lake NWR budget.

The initial court decision of the U.S. District Court for the District of Columbia concluded that the Secretary must make a determination that proposed regulations will permit a use that is compatible with and does not interfere with the primary purpose of the refuge. It went further in its conclusions to state that it was not the function of the court to make the finding. In the subsequent decision, the court set findings of fact that were considered in the development of the final rulemaking. The parameter set by the court was that the degree and manner of boating use in the proposed regulations (unlimited horsepower in a zone concept) would have been incompatible, and that horsepower limitations should be used over speed limitations. In reaching its decision, the court relied heavily on the 1976 environmental impact assessment (EIA), entitled "Effect of Boating on Management of Ruby Lake National Wildlife Refuge," which evaluated only year-round boating alternatives.



In developing the final regulations that the court approved, the Service eliminated the hard-to-enforce zone concept in favor of allowing boating throughout the South Sump with time of use restriction. Using a conservative interpretation of the biological data available as a result of monitoring activities on the refuge, the Service concluded that beginning use of motorized boats on August 1 through December 31 would be compatible. Final regulations were promulgated in early 1979. It is emphasized here, however, that the major issue at hand was not the time the motorized boating season opened, but the use of large outboard motors for fishing and waterskiing, and the deleterious effects of these activities on waterfowl and their habitat in the South Sump. By restricting motors to 10 horsepower (hp) or less, waterskiing was eliminated and the impact of motors on vegetation was significantly reduced. Figure 21 in the 1976 EIA indicates that the August 1 use of motorized boats occurs during a little less than one third of the normal year brood activity period and during all of the late year brood period. The final regulations promulgated by this rulemaking will permit motorized boating during approximately one half of the normal year brood period. This increase is so limited that the Service has determined that the additional period of recreational use by motorized boats using 10 hp or less motors is still incidental to and compatible with the primary purposes of Ruby Lake NWR.

In making this determination, the Service has relied upon existing research on broods, and upon the monitoring studies that have been conducted at Ruby Lake NWR. Some of the effects described in these studies may be age related. For example, the break up of broods appears to be unnatural and detrimental for young ducklings, but natural and not detrimental or at least less detrimental for older ducklings. The two-week increase in boating will occur during a timeframe in the brood period when the majority of the ducklings are older. One of the important questions to be answered by the research that will be done is when does this change in brood behavior occur and does it occur before the time period in question. The existing information does not, however, provide a clear separation of the causes of changes in habitat use because of lack of controls and small sample sizes. Therefore, boating may be only one cause, and may not be the single most important factor. The 1976 EIA suggests that small boats may not have the same

effect on food availability as larger boats. Thus, one cause of change in habitat use may have already been eliminated. The reported aggression between broods as a result of crowding into the remaining habitat needs to be studied in detail. There is evidence of interbrood mixing. This behavior may also be age related and therefore needs further evaluation. The reported effects on brood size are also difficult to interpret since the factors were not isolated. The disturbance occurred during the nesting stage as well as the entire brood rearing stage. The size of early versus late broods was not determined.

Many sizes and types of powerboats were included in the disturbance. And, finally, the effects due to the timing and amount of boating activity were not determined. The time period in question should minimize the impacts on waterfowl production because most of the nesting will be completed and most of the ducklings will be older and able to care for themselves.

*Issue 2:* Some commenters questioned the need for research at Ruby Lake and cited existing literature. Others acknowledge that little information is available on the subject of the effects of motorized boating on duck brood survival, but questioned the study design and probable results.

*Response:* Boating and the regulation of boating activity at Ruby Lake NWR has been a long-standing issue. Many citizens of Elko and other areas of Nevada in proximity to Ruby Lake NWR use the South Sump of Ruby Lake to satisfy their recreational fishing needs, and they have made their concerns for continued and/or expanded use of the area well known to the Service and the Department. On the other hand, members of the conservation community nationwide have made their concerns for the protection of the resources of Ruby Lake equally well known. Therefore, the Service continues to be in the position of evaluating secondary recreational boating and its impacts on refuge resources. As mentioned in the response to Issue 1, any incidental recreational activity must be determined not to interfere with the primary purposes for which a refuge was established before it may be permitted. The Service's professional biological expertise is called to bear in every such determination. Because of the controversial nature of boating at Ruby Lake NWR, the Service has made exceptional effort to ensure the biological quality of its determinations. Continual monitoring studies have been conducted on the refuge, both prior to

the 1979 regulations, and annually since then. Also, several formal research programs have been conducted in relation to a proposed water management program for the South Sump. The results of these studies have been mixed, and in some cases conflict in certain areas. All have pointed to the need for additional research on the subject of brood activity and survival.

Published information on the effects of recreational activities on waterfowl broods is limited. Some of the existing basic scientific information on waterfowl biology is useful, but will be of limited applicability to the recreational situation at hand. In addition to the existing research, several monitoring studies have been completed, as mentioned above; but the influences of many variables are combined in these studies making it impossible to separate the effects attributable to each specific variable. Actual research on impacts of recreational boating that has been completed in the United States and Great Britain also tends to be very general in nature. Several studies address the wintering period and are of limited use for the breeding season, and more specifically the brood rearing season in question. Studies during the breeding season have emphasized the general effects of boating of all types and have not isolated specific variables such as time of season, type of disturbance, duckling age, and environmental factors; thus, the degree of impact associated with each cannot be determined or even estimated with any degree of accuracy. Without detailed data on specified activities, it is impossible to positively determine which specific activities are incompatible, or at what point a given activity may be incompatible, and the full potential of compatible uses will not be developed.

The research study is designed to answer very specific questions concerning the type of recreation and timing of activity related specifically to the one site on the Ruby Lake NWR. During the time in question good variety of duckling ages will be available from early and late nesting hens. Delaying the study to a later part of the season not only reduces the number of broods in certain age groups, creating statistical problems, but also does not permit gathering information specifically for the time period in question. The study design calls for repetition over a five-year period which will provide control and experimental situations and should allow for the separation of environmental effects. The type of

recreational activity to be tested is also highly specific. Only powerboats with motors up to 10 hp will be allowed. This design will eliminate the difficulty in interpreting data involving large and small powerboats. The relatively large number of overwater nesters at Ruby Lake NWR also increases the statistical validity of the data.

*Issue 3:* One commenter was concerned with the potential impact that increased angling pressure might have on the bass fishery and on the effectiveness of Nevada Department of Wildlife (NDOW) regulations. The same commenter felt that the proposed change in boating regulations could have an impact on ongoing refuge studies.

*Response:* As discussed in the Service's March 1984 environmental assessment (EA) for this research proposal, harvest of bass will increase with the expected increase in fishing pressure. Increased harvest of sub-adult bass may have a detrimental effect on subsequent years' production. However, little impact on bass nesting success is expected since the adult males usually stop guarding their brood by mid- to late July.

The NDOW works closely with Service staff at Ruby Lake NWR in its management of the fishery resources at Ruby Lake. It is well aware of the research that will be conducted and the earlier boating season that is part of this research. The NDOW has expressed no opposition to the research program, and did not comment on the proposed rulemaking. The NDOW has the option of further restricting creel and size limits if it feels that the fishery is being adversely impacted.

In an evaluation of the potential for conflict among research programs at Ruby Lake NWR, the Ruby Lake Refuge Biologist stated in a memorandum dated January 26, 1984, to the Service Regional Director in Portland, Oregon, that "(w)ith the exception of nightlighting, there will be little conflict among ongoing and proposed projects. Past experience shows that it is possible to conduct more than 1 project at Ruby Lake NWR without conflicts."

*Issue 4:* One commenter questioned why the Service would consider a change in the motorized boating season in view of the fact that in April 1983, in a letter to Senator Laxalt and in a statement to the Senate Appropriations Committee, the Department stated that it felt that relaxation of boating regulations would be inconsistent with the laws that govern management of national wildlife refuges.

*Response:* As pointed out in the above responses, biological monitoring and studies are an on-going effort at Ruby

Lake NWR. Not only have these activities indicated a need for a formal research program to study brood behavior and survival, but they have also allowed the Department and the Service to reach the conclusion that two weeks of additional boating to facilitate such a research program would be compatible and would not interfere with the primary purpose for which the refuge was established.

*Issue 5:* One commenter stated that it felt the Service had predetermined that motorized boat use beginning July 15 would not have a biological impact on nesting and would not result in substantial impact on broods, and that it is proceeding with research to prove that determination.

*Response:* The research is not being conducted to prove the determination that opening powerboating on the South Sump beginning July 15 is compatible with the purposes for which Ruby Lake NWR was established. Nor is it being conducted to prove that the July 15 opening will have no substantial impacts on waterfowl broods. Based on existing biological research data and studies, the Service has made the determination that regulated boating beginning July 15 has no biological impact on waterfowl nesting at Ruby Lake, is compatible during the nesting period, and will not interfere with the primary purposes for which the refuge was established. The same studies have led the Service to the conclusion that an alternate year, two-week early opening for powerboats is compatible and will not interfere with the primary purposes for which Ruby Lake NWR was established. Further, the Service concludes that adverse impacts on broods using the South Sump of Ruby Lake NWR are unlikely to result from the July 15 opening. However, the Service does recognize the fact that it has insufficient research studies and conclusions on which to base any further manipulation of recreational powerboating at Ruby Lake during the canvasback and redhead brood periods.

#### Conformance With Statutory and Regulatory Authorities

The National Wildlife Refuge System Administration Act of 1966 (NWRSAA), as amended (16 U.S.C. 668dd), authorizes the Secretary of the Interior to permit public access, use and recreation on refuges whenever he determines that such uses are compatible with the major purposes for which such areas were established. The Service has determined that permitting the use of motorized boats from July 15 through December 31 in 1984, 1986 and 1988, in order to facilitate a research

study on brood behavior and survival will not have a biological impact on waterfowl nesting. The Service also believes that the limited extension of the motorized boating season in the South Sump portion of the refuge in order to undertake the needed research will not result in an adverse biological impact on waterfowl broods. If at any time during the extended boating period the research activities indicate that motorized boating may be having a biologically detrimental effect on duck broods, additional restrictions may be imposed if deemed necessary to maintain compatibility with refuge purposes, as provided for in 50 CFR 25.21. Therefore, the additional 16 days of powerboat use necessary to implement the research study has been determined to be compatible with the major purposes for which Ruby Lake NWR was established.

The provisions of the NWRSAA relating to recreation are administered in accordance with the Refuge Recreation Act of 1962, 16 U.S.C. 460k, which authorizes the Secretary to permit recreational uses on refuges if they are appropriate incidental or secondary uses. In conformance with that Act, the Service has determined that motorized recreational boating governed by these regulations permits a secondary use of Ruby Lake NWR that is not inconsistent with the primary objectives for which it was established, and will not interfere with the primary purposes for which Ruby Lake NWR was established. In addition, funds are available within the FY 1984 annual refuge budget of approximately \$218,000 for the administration of this recreational activity that is required to permit a biological study of motorized boating impacts on canvasback and redhead duck broods. Funding to conduct the research study, other than for the expanded boating use, will come from Service sources outside the annual Ruby Lake refuge budget.

#### Economic Effect

Executive Order 12291 of February 19, 1981, requires the preparation of regulatory impact analyses for major rules. A major rule is one likely to result in an annual effect on the economy of \$100 million or more; a major increase in costs or prices for consumers, individual industries, government agencies or geographic regions, or significant adverse effects on the ability of United States-based enterprises to compete with foreign-based enterprises. The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) requires preparation of flexibility analyses for rules that will

have a significant effect on a substantial number of small entities, which include small businesses, organizations or government jurisdictions.

This rule is a temporary, minor adjustment to existing regulations for one refuge; therefore, this action will not have an adverse impact on the overall economy or a particular region, industry or group of industries, or level of government. With respect to small entities, the rule will not significantly alter the existing recreational uses of the refuge, and small entities such as sporting good stores, restaurants, motels and local governments will not be significantly affected by the rule.

Accordingly, the Department of the Interior has determined that this rule is not a "major rule" within the meaning of Executive Order 12291, and will not have a significant economic effect on a substantial number of small entities within the meaning of the Regulatory Flexibility Act.

#### Paperwork Reduction Act

This rule does contain information collection requirements that require approval of the Office of Management and Budget under 44 U.S.C. 3501 *et seq.*

#### Environmental Effects

An environmental assessment (EA) and finding of no significant impact (FONSI) have been prepared to analyze the impacts of research to evaluate powerboating activity and its effects on the distribution, behavior and survival of canvasback and redhead broods at Ruby Lake National Wildlife Refuge. The limited trial extension of the motorized boating season in alternate years that is attendant to this research does not differ significantly from existing boating use in the area, and does not constitute a major federal action. Supporting references used in making the FONSI determination include the EIA prepared in 1976 concerning the effects of boating on the management of Ruby Lake NWR, the final environmental impact statement for the "Operation of the National Wildlife Refuge System," that was filed with the Council on Environmental Quality on November 12, 1976, and the above-referenced EA. The EA and FONSI for the research proposal are available for public review and copying at the Service's Division of Wildlife Research, Room 515, Matomic Building, 1717 H Street NW., Washington, D.C., or by contacting Rollin Sparrowe at the phone number provided above.

Maps of the South Sump are available

from the Refuge Manager, Ruby Lake NWR, Ruby Valley, Nevada 89833, and will be posted at refuge boat landings. Copies of the maps can also be obtained from the Regional Director, U.S. Fish and Wildlife Service, 500 Northeast Multnomah Street, Suite 1692, Portland, Oregon 97232.

Primary author of this rule is Noreen Clough, Division of Refuge Management, U.S. Fish and Wildlife Service, 18th and C Street NW., Washington, D.C. 20240.

#### List of Subjects in 50 CFR Part 26

National Wildlife Refuge System, Recreation, Wildlife refuges.

#### PART 26—[AMENDED]

For the reasons set out in the preamble, and as provided for in 50 CFR 26.33, the following special regulations are added as set forth below:

§ 26.34 Special regulations concerning public access, use and recreation for individual national wildlife refuges.

#### Ruby Lake National Wildlife Refuge, Nevada

Beginning June 15 annually, and continuing until December 31, annually, motorless boats and boats with electric motors will be permitted only on that portion of the Ruby Lake National Wildlife Refuge known as the South Sump. For a limited alternating period, beginning on July 15, 1984; July 15, 1986; and July 15, 1988, and continuing through December 31, 1984, 1986 and 1988, respectively, boats propelled with a motor or combination of motors in aggregate not to exceed 10 horsepower rating will also be permitted on the South Sump. Beginning on August 1, 1985, and August 1, 1987, and continuing through December 31, 1985, and 1987, respectively, boats propelled with a motor or combination of motors in aggregate not to exceed a 10 horsepower rating will be permitted in the South Sump. Boats may be launched only from landings approved and so designated by the Refuge Manager.

Authority: 16 U.S.C. 668dd and 460k.)

Dated: May 25, 1984.

J. Craig Potter,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 84-15661 Filed 6-11-84; 8:45 am]

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#### DEPARTMENT OF COMMERCE

#### National Oceanic and Atmospheric Administration

#### 50 CFR Part 672

[Docket Nos. 40302-21 and 40316-29]

#### Groundfish of the Gulf of Alaska

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Emergency interim rules, extensions.

**SUMMARY:** The North Pacific Fishery Management Council (Council) has determined that emergencies continue to exist in two groundfish fisheries in the Gulf of Alaska: (1) The domestic sablefish fishery within the inner coastal waters of the Southeast Outside District of the Eastern Regulatory Area and (2) the pollock fishery in the combined Western/Central Regulatory Areas. The Secretary of Commerce, therefore, is extending two emergency interim rules now in force. These extensions are necessary to delay the opening of the traditional sablefish season in the inner coastal waters of southeast Alaska and to increase and combine the optimum yields (OYs) for pollock in the Western/Central Regulatory Areas. This emergency rule is intended to promote an orderly sablefish fishery that is managed in coordination with the State of Alaska and to prevent undue economic hardship in the pollock fishery that would otherwise occur if it were managed on the basis of understated OYs.

**DATES:** 1. *Sablefish season delay:* the extended rule is effective from 12:00 noon Alaska Daylight Time (ADT), June 7, 1984, to 12:00 noon (ADT), September 1, 1984.

2. *Pollock OY:* the extended rule is effective from 12:00 noon ADT, June 21, 1984, to 12:00 noon ADT, September 18, 1984.

**ADDRESS:** Copies of the environmental assessment (EA) prepared for the sablefish season delay and the EA/final regulatory flexibility analysis prepared for the new pollock OY are available from Robert W. McVey, Director, Alaska Region, National Marine Fisheries Service, P.O. Box 1668, Juneau, AK 99802.

**FOR FURTHER INFORMATION CONTACT:** Ronald J. Berg (Fishery Management Biologist, NMFS, Alaska Region), 907-586-7239.



## SUPPLEMENTARY INFORMATION:

## Delay the Sablefish Season

The Secretary published an emergency rule in the Federal Register (49 FR 8931, March 9, 1984) that delayed the opening of the sablefish fishery in certain areas of the Southeast Outside District of the Eastern Regulatory Area from March 6, 1984, to June 4, 1984. The Council, by unanimous vote at its February 1-3, 1984, meeting, requested the Secretary to take this action.

## Increase and Combine the Pollock OYs

The Secretary published an emergency rule on March 23, 1984 (49 FR 10931), that combined the OYs for pollock in the Western and Central Regulatory Areas and increased this amount from 200,000 metric tons (mt) to 400,000 mt. The Council, by unanimous vote at its December 7-8, 1983, meeting, requested the Secretary to take this action.

The rationale for each of those emergency rules was provided in the preambles to those rules. The Council voted unanimously at its May 23-24, 1984, meeting to request the Secretary to extend both emergency rules.

At its December 7-8, 1983, meeting the Council adopted an amendment (Amendment 13) to the Fishery Management Plan for Groundfish of the Gulf of Alaska that will establish the same pollock OY increase as did the emergency rule. A rule was proposed (at 49 FR 18144, April 27, 1984) to implement Amendment 13. This extended emergency rule will avoid a hiatus in the pollock fishery until Amendment 13 can be approved and implemented.

This emergency rule revises the first emergency rule for the sablefish fishery by deleting 50 CFR 672.23(b)(2), the reference to Sitka Sound, and redesignating § 672.23(b)(3) as § 672.23(b)(2). The season in the territorial sea within Sitka Sound opened on March 15, 1984. In order to make State and Federal seasons consistent, the extended rule will no

longer pertain to that part of the fishery conservation zone in Sitka Sound (more than three miles from shore, but within the Sound), to facilitate enforcement and monitoring of the fishery.

## Public Comments

Comments were invited on the pollock OY increase. No comments were received.

## Classification

The Assistant Administrator for Fisheries, NOAA, has determined that extension of these emergency rules is necessary to respond to emergency situations and that this extension is consistent with the Magnuson Act and other applicable law. It will avoid the adverse consequences in the pollock and sablefish fisheries described in the preambles to the original emergency rules.

The Assistant Administrator also found that the reasons justifying the original emergency rules continue, making it impractical and contrary to the public interest to provide notice and a prior opportunity for public comment or to delay for 30 days the effective date of this rule under provisions of 5 U.S.C. 553 (b) and (d).

The Assistant Administrator prepared EAs for the emergency rules and concluded that no significant impact on the human environment will occur. Copies of the EAs are available from the Director, Alaska Region, at the address above.

The Assistant Administrator has determined that this emergency rule will be implemented in a manner consistent to the maximum extent practicable with the Alaska Coastal Management Program; this determination has been submitted for review by the responsible State agency.

This emergency rule is exempt from the normal review procedures of Executive Order 12291 as provided in section 8(a)(1) of that order. This rule is

being reported to the Director of the Office of Management and Budget, with an explanation of why it is not possible to follow the regular procedures of that order.

This rule is exempt from the procedures of the Regulatory Flexibility Act because the rule is issued without opportunity for prior public comment.

This rule does not contain a collection of information requirement and therefore is not subject to the provisions of the Paperwork Reduction Act.

## List of Subjects in 50 CFR Part 672

Fish, Fisheries, Reporting and recordkeeping requirements.

Dated: June 7, 1984.

William G. Gordon,  
Assistant Administrator for Fisheries,  
National Marine Fisheries Service.

For the reasons set out in the preamble, the two emergency rules at 49 FR 8931 (March 9, 1984) and at 49 FR 10931 (March 23, 1984) are effective as set forth in the DATES section in their entirety with the following exception:

## PART 672—GROUND FISH OF THE GULF OF ALASKA

1. The authority citation for Part 672 reads as follows:

Authority: 16 U.S.C. 1801 *et seq.*

2. In § 672.23 paragraph (b)(2) is removed, paragraph (b)(3) is redesignated as (b)(2), and paragraph (b) is revised to read as follows:

## § 672.23 Seasons.

(b) Sablefish may not be taken in those waters of the FCZ identified in paragraphs (b) (1) and (2) of this section from June 4, 1984, until September 1, 1984, subject to adjustment under § 672.22 of this part.

[FR Doc. 84-15741 Filed 6-7-84; 522 pm]  
BILLING CODE 3510-22-M

# Proposed Rules

Federal Register

Vol. 49, No. 114

Tuesday, June 12, 1984

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.

## DEPARTMENT OF AGRICULTURE

### Federal Crop Insurance Corporation

#### 7 CFR Part 438

[Doc. No. 1111S; Amdt. No. 3]

#### Canning and Processing Tomato Crop Insurance Regulations

**AGENCY:** Federal Crop Insurance Corporation, USDA.

**ACTION:** Proposed rule.

**SUMMARY:** The Federal Crop Insurance Corporation (FCIC) hereby proposes to amend Appendix A to the Canning and Processing Tomato Crop Insurance Regulations (7 CFR Part 438) to include additional counties recently approved by FCIC's Board of Directors for canning and processing tomato crop insurance, to list counties inadvertently omitted from previous county listing publications, and to republish Appendix A in its entirety to reflect all counties currently designated for canning and processing tomato crop insurance. The intended effect of this rule is to update the list of counties wherein canning and processing tomato crop insurance is authorized to be offered under the provisions of the Canning and Processing Tomato Crop Insurance Regulations and to notify all interested parties in the additional affected counties that they are now eligible to participate in the program.

**DATE:** Written comments, data, and opinions on this proposed rule must be submitted not later than July 12, 1984, to be sure of consideration.

**ADDRESS:** Written comments on this proposed rule should be sent to the Office of the Manager, Federal Crop Insurance Corporation, U.S. Department of Agriculture, Washington, D.C., 20250.

**FOR FURTHER INFORMATION CONTACT:** Peter F. Cole, Secretary, Federal Crop Insurance Corporation, U.S. Department of Agriculture, Washington, D.C., 20250, telephone (202) 447-3325.

**SUPPLEMENTARY INFORMATION:** This action has been reviewed under USDA procedures established in Departmental Regulation No. 1512-1 (December 15, 1983). This action does not constitute a review as to the need, currency, clarity, and effectiveness of these regulations under that memorandum. The sunset review date established for these regulations is April 1, 1988.

Merritt W. Sprague, Manager, FCIC, has determined that this action (1) is not a major rule as defined by Executive Order No. 12291 (February 17, 1981), because it will not have an annual effect on the economy of \$100 million or more; and (2) will not increase the Federal paperwork burden for individuals, small businesses, and other persons.

The title and number of the Federal Assistance Program to which this proposed rule applies are: Title—Crop Insurance; Number 10.450.

As set forth in the notice related to 7 CFR Part 3015, Subpart V (48 FR 29116, June 24, 1983), the Federal Crop Insurance Corporation's program and activities, requiring intergovernmental consultation with State and local officials, are excluded from the provisions of Executive Order No. 12372.

This action is exempt from the provisions of the Regulatory Flexibility Act; therefore, no Regulatory Flexibility Analysis was prepared.

Under the provisions of 7 CFR 438.1, before any insurance is offered in any county, there shall be published by appendix to this part the names of the counties in which canning and processing tomato crop insurance shall be offered. The Board of Directors has approved additional counties for canning and processing tomato crop insurance and the Manager proposes to make crop insurance available in those counties effective with the 1984 and succeeding crop years. The proposed additional counties are listed and identified in Appendix A by an asterisk ("\*").

In reviewing the county listing for canning and processing tomato crop insurance, FCIC noted that several counties had been inadvertently omitted from previous regulations published in the Federal Register. These counties are included in Appendix A and are identified by two asterisks ("\*\*").

To be sure that Appendix A lists every county wherein canning and

processing tomato crop insurance is otherwise authorized to be offered, FCIC is republishing Appendix A in its entirety.

The public is invited to submit written comments, data, and opinions on this proposed rule for 30 days after publication in the Federal Register. All comments made pursuant to this action will be available for public inspection in the Office of the Manager during regular business hours, Monday through Friday.

#### List of Subjects in 7 CFR Part 438

Crop insurance, Canning and processing tomato.

#### PART 438—[AMENDED]

##### Proposed Rule

Accordingly, under the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), the Federal Crop Insurance Corporation hereby proposes to amend the Canning and Processing Tomato Crop Insurance Regulations (7 CFR Part 438), effective for the 1984 and succeeding crop years, in the following instances:

1. The Authority Citation for 7 CFR Part 438 is:

Authority: Secs. 508, 516, Pub. L. 75-430, 52 Stat. 73, 77, as amended (7 U.S.C. 1508, 1510).

2. 7 CFR Part 438 is amended by revising and reissuing Appendix A thereto to read as follows:

#### Appendix A—Counties Designated for Canning and Processing Tomato Crop Insurance—7 CFR Part 438

The following counties are designated for Canning and Processing Tomato Crop Insurance under the provisions of 7 CFR 438.1.

##### State: California

Colusa	Sacramento
**Contra Costa	San Benito
Fresno	San Joaquin
*Imperial	*Santa Barbara
*Kern	**Santa Clara
*Madera	Solano
Merced	**Stanislaus
Monterey	Sutter
*Orange	*Ventura
*Riverside	Yolo

##### State: Ohio

*Adams	Ottawa
Darke	Putnam
Fulton	Sandusky
Henry	Wood
Lucas	

Done in Washington, D.C., on May 11, 1984.  
 Peter F. Cole,  
*Secretary, Federal Crop Insurance Corporation.*

Approved by:  
 Edward Hews,  
*Acting Manager.*

Dated: June 5, 1984.  
 [FR Doc. 84-15722 Filed 6-11-84; 8:45 am]  
 BILLING CODE 3410-03-M

## 7 CFR Part 447

[Doc. No. 1117S; Amdt. No. 1]

### Popcorn Crop Insurance Regulations

AGENCY: Federal Crop Insurance Corporation, USDA.

ACTION: Proposed rule.

**SUMMARY:** The Federal Crop Insurance Corporation (FCIC) hereby proposes to amend Appendix A to the Popcorn Crop Insurance Regulations (7 CFR Part 447) to include additional counties recently approved by FCIC's Board of Directors for popcorn crop insurance, and to republish Appendix A in its entirety to reflect all counties currently designated for popcorn crop insurance. The intended effect of this rule is to update the list of counties wherein popcorn crop insurance is authorized to be offered under the provisions of the Popcorn Crop Insurance Regulations and to notify all interested parties in the additional affected counties that they are now eligible to participate in the program.

**DATE:** Written comments, data, and opinions on this proposed rule must be submitted not later than July 12, 1984, to be sure of consideration.

**ADDRESS:** Written comments on this proposed rule should be sent to the Office of the Manager, Federal Crop Insurance Corporation, U.S. Department of Agriculture, Washington, D.C., 20250.

**FOR FURTHER INFORMATION CONTACT:** Peter F. Cole, Secretary, Federal Crop Insurance Corporation, U.S. Department of Agriculture, Washington, D.C., 20250, telephone (202) 447-3325.

**SUPPLEMENTARY INFORMATION:** This action has been reviewed under USDA procedures established in Departmental Regulation No. 1512-1 (December 15, 1983). This action does not constitute a review as to the need, currency, clarity, and effectiveness of these regulations under that memorandum. The sunset review date established for these regulations is September 1, 1988.

Merritt W. Sprague, Manager, FCIC,

has determined that this action (1) is not a major rule as defined by Executive Order No. 12291 (February 17, 1981), because it will not have an annual effect on the economy of \$100 million or more; and (2) will not increase the Federal paperwork burden for individuals, small businesses, and other persons.

The title and number of the Federal Assistance Program to which this proposed rule applies are: Title—Crop Insurance; Number 10.450.

As set forth in the notice related to 7 CFR Part 3015, Subpart V (48 FR 29116, June 24, 1983), the Federal Crop Insurance Corporation's program and activities, requiring intergovernmental consultation with State and local officials, are excluded from the provisions of Executive Order No. 12372.

This action is exempt from the provisions of the Regulatory Flexibility Act; therefore, no Regulatory Flexibility Analysis was prepared.

Under the provisions of 7 CFR 447.1, before any insurance is offered in any county, there shall be published by appendix to this part the names of the counties in which popcorn crop insurance shall be offered. The Board of Directors has approved additional counties for popcorn crop insurance and the Manager proposes to make crop insurance available in those counties effective with the 1984 and succeeding crop years. The proposed additional counties are listed and identified in Appendix A by an asterisk (\*).

To be sure that Appendix A lists every county wherein popcorn crop insurance is otherwise authorized to be offered, FCIC is republishing Appendix A in its entirety.

The public is invited to submit written comments, data, and opinions on this proposed rule for 30 days after publication in the Federal Register. All comments made pursuant to this action will be available for public inspection in the Office of the Manager during regular business hours, Monday through Friday.

#### List of Subjects in 7 CFR Part 447

Crop insurance, Popcorn.

#### Proposed Rule

Accordingly, under the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), the Federal Crop Insurance Corporation hereby proposes to amend the Popcorn Crop Insurance Regulations (7 CFR Part 447), effective for the 1984 and

succeeding crop years, in the following instances:

#### 1. The Authority Citation for 7 CFR Part 447 is:

Authority: Secs. 503, 516, Pub. L. 75-430, 52 Stat. 73, 77, as amended (7 U.S.C. 1503, 1516).

#### 2. 7 CFR Part 447 is amended by revising and reissuing Appendix A thereto to read as follows:

#### Appendix A—Counties Designated for Popcorn Crop Insurance

The following counties are designated for Popcorn Crop Insurance under the provisions of 7 CFR 447.1

##### State: Illinois

*Gallatin	Saline
*Hamilton	*White
Lee	*Whiteside
Macon	

##### State: Indiana

*Carroll	Lagrange
*Clinton	*Posey
*Crawford	*Tippecanoe
*Gibson	*Wabash
*Grant	Washington
*Harrison	*Wells
Huntington	White
*Jackson	

##### State: Iowa

*Crawford	Monona
Fremont	*Plymouth
*Harrison	Sac
*Ida	*Shelby
*Mills	*Woodbury

##### State: Missouri

*Atchison	*Nadaway
*Holt	

##### State: Nebraska

*Antelope	Holt
*Buffalo	*Lincoln
Chase	*Pierce
Clay	*Reck
Dawson	*Wheeler
*Hall	

##### State: Ohio

*Allen	Madison
Fairfield	*Putnam
*Franklin	Van Wert
*Hancock	*Wood
*Licking	

Done in Washington, D.C., on May 11, 1984

Peter F. Cole,  
*Secretary, Federal Crop Insurance Corporation.*

Dated: June 5, 1984.

Approved by:  
 Edward Hews,  
*Acting Manager.*

[FR Doc. 84-15722 Filed 6-11-84; 8:45 am]  
 BILLING CODE 3410-03-M

## DEPARTMENT OF ENERGY

## Federal Energy Regulatory

## Commission

## 18 CFR Part 301

[Docket No. RM84-16-000]

**Methodology for Sales of Electric Power to Bonneville Power Administration; Notice of Proposed Interim Rule and Notice of Proposed Rulemaking**

Issued June 8, 1984.

**AGENCY:** Federal Energy Regulatory Commission.

**ACTION:** Notice of proposal to issue interim rule and notice of proposed rulemaking.

**SUMMARY:** The Bonneville Power Administration (BPA) has submitted for the Federal Energy Regulatory Commission's (Commission) approval a new methodology for determining the average system cost (ASC) of a utility's resources under the Northwest Power Act (NPA). BPA requested that the new methodology be approved effective July 1, 1984. In this notice, the Commission requests: (1) Comments on whether BPA's reasons for requesting quick action on the methodology justify interim approval (subject to refunds or other adjustments) effective July 1, 1984, and (2) any viewpoints or data not previously raised before BPA concerning whether the Commission should approve the methodology.

**DATES:** To be assured of having their comments considered, persons wishing to file comments on whether BPA's reasons for requesting approval of the methodology effective July 1, 1984 are adequate should ensure that the Commission receives their comments on or before June 22, 1984. Comments on this issue received after that date but before action by the Commission will be considered to the extent practicable. Comments on whether the methodology should be approved must be received by July 16, 1984.

**ADDRESS:** Comments must be submitted to the Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426 and must refer to Docket No. RM84-16. Any comment must clearly indicate which issue it involves. An original and 14 copies should be filed. All written comments will be placed in the Commission's public file and will be available for public inspection during regular business hours at the Commission's Division of Public Information, Room 1000, 825 North Capitol Street, NE., Washington, D.C.

20426 [(202) 357-8118]. Copies of BPA's submission are available through the Commission's Office of Public Information at the above address.

**FOR FURTHER INFORMATION CONTACT:** Jan Macpherson, Office of the General Counsel, 825 North Capitol Street, NE., Washington, D.C. 20426, (202) 357-8033.

## I. Introduction

This notice of a proposed interim rule and of a proposed rulemaking responds to the submission by the Bonneville Power Administration (BPA) of a new average system cost (ASC) methodology under section 5 of the Northwest Power Act (NPA).<sup>1</sup> On June 5, 1984, BPA submitted a new ASC methodology for the Commission's approval. This methodology, if approved, would govern the rates at which investor-owned utilities sell power to BPA. These utilities in turn receive power priced by BPA at a lower rate. The benefits of this exchange are passed on to residential customers of the utilities. The cost of this exchange program affects BPA's rates for its sales to its other customers.<sup>2</sup>

## II. Background

The new ASC methodology was developed by BPA by means of a rulemaking proceeding that included several rounds of public comment and consultations.<sup>3</sup> As a result of this proceeding, BPA revised its ASC methodology in many respects. The more important features of the revised ASC methodology are as follows.

First, the new methodology would retain the jurisdictional approach under which retail rate orders of regulatory agencies are used as the primary source of data for computing the ASC for utilities participating in the residential exchange. However, BPA would carry out its statutory role through an independent determination of the validity of all data submitted in ASC filings. This independent determination would require greater BPA involvement in the retail rate cases of utilities participating in the residential exchange program.

Second, the methodology now includes transmission costs in the calculation of ASC, with a review of all future transmission plant additions to

ensure that they are not redundant of the existing transmission grid.

Third, the methodology excludes all construction work in progress from the calculation of ASC.

Fourth, the methodology uses participating utilities' weighted cost of debt securities to determine a return component of ASC.

Fifth, the methodology excludes income taxes from ASC.

Sixth, it simplifies procedures for functionalizing (separating) costs between subsidized generation and transmission accounts and nonsubsidized distribution and "other" accounts.

Seventh, the methodology provides that once an ASC methodology is adopted, the Administrator may retain that methodology for at least one year after implementation so that experience may be gained thereunder before it is subject to further revision or change.

Eighth, the methodology changes the timetable for BPA review of individual ASC filings to permit more thorough analysis.

Ninth, the reformed ASC methodology would be "phased in" in order to minimize the retail rate effects of the change in methodology. Under the phase-in, if the new methodology is approved by the Commission effective July 1, 1984 (the date on which participating utilities qualify to exchange 90 percent of their residential loads under section 5(c) of the Northwest Power Act), for the ensuing 12-month period, the actual ASC subsidy for each participating utility would be determined as the average of the ASC in effect on July 1, 1984, and the ASC calculated under the new methodology. On July 1, 1985, the new methodology would become the exclusive means of determining the ASC of each participating utility.

Finally, the methodology would require each exchanging utility to file under the new methodology within 20 days after implementation by the Commission. Any utility failing to do so would have its ASC deemed equal to zero until it files.

On June 5, 1984, the Commission received from BPA its revised methodology and the Record of Decision. In its accompanying material, BPA requested that the Commission approve the methodology effective July 1, 1984, for three reasons:

First, section 5(c)(2) of the Northwest Power Act specifies that Pacific Northwest utility loads eligible for the residential exchange will increase by 10 percent on July 1, 1984, with a corresponding increase in the subsidy. Any reduction in the subsidy under the forthcoming revised methodology will tend to be offset by this increase in eligible

<sup>1</sup> Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. 839-839h (1982).

<sup>2</sup> For a complete discussion of the power exchange program under the NPA, see the Commission's rule approving the existing ASC methodology, 48 FR 46,970-71 (Oct. 17, 1983).

<sup>3</sup> For a complete description of the procedural background of BPA's new methodology, see 49 FR 4,230-33 (Feb. 3, 1984).

loads if the Commission grants interim approval by July 1, 1984. This offset will minimize the effects of the revised methodology on participating utilities and their ratepayers. If implementation of the revised methodology is not synchronized with the increase in load eligibility, there will likely be fluctuations in the bills of exchanging utilities and their retail customers.

Second, BPA's next general rate proceeding begins in August of this year. We must know by about July 1, 1984, what level of subsidy payments to include in BPA's revenue requirement. Determination of revenue requirement is the first step in developing our wholesale rate proposal, so delays in ascertaining the level of ASC subsidy will necessarily delay the rest of the process. Implementation of the revised ASC methodology, at least on an interim basis, by July 1, 1984, would greatly assist BPA in preparing for its next rate case.

Third, section 7(c)(2) of the Northwest Power Act states that the minimum rate BPA can charge its direct service industrial (DSI) customers after July 1, 1985, is determined by the rates in effect during the preceding 12 months. The DSI rate is materially affected by the level of the residential exchange subsidy. If the revised ASC methodology is implemented by July 1, 1984, this will cause the statutory minimum rate to reflect the level of the subsidy to be paid by BPA over the effective period for BPA's post-1985 rates. Implementation of the revised ASC methodology by July 1, 1985, would give BPA and extra degree of pricing flexibility in its 1985 rate case.<sup>4</sup>

### III. Discussion

BPA's filing raises two issues with which the Commission must deal, particularly in light of BPA's request for fast review and approval. The first issue is whether BPA's reasons for asking the Commission for quick approval of the methodology, effective July 1, 1984, warrant interim approval even if subject to refunds or other adjustments. Second, the Commission must consider whether the new methodology should be approved as reasonable under the NPA. The Commission solicits comments on both issues.

Concerning the first issue, the Commission is sensitive to BPA's request for interim approval by July 1, 1984. The Commission would like the benefit of receiving comments from other interested parties as to whether the ASC should be put into effect immediately. Hence, comments are sought by June 22, 1984, specifically on that issue.

In regard to the second issue concerning whether the new methodology is reasonable under the NPA, the Commission seeks comments by July 16, 1984. Commenters should not

merely repeat arguments made before BPA. The Commission already has copies of all these comments and will consider them. Through this additional opportunity for comment, the Commission is ensuring that no significant information or views will be overlooked. In addition, commenters must recognize the scope of the issues facing the Commission. As stated in the Commission's rule approving the existing methodology,<sup>5</sup> the Commission's role under section 5 of the NPA is appellate in nature. Congress intended the Commission to disapprove a methodology submitted by BPA only if the methodology is inconsistent with the NPA. Thus, comments should focus on whether the methodology can reasonably be considered consistent with the NPA.

Those affected by the ASC methodology are already aware of the content and basis of the new methodology, in view of BPA's extensive public participation procedures. In addition, EPA is serving this notice on all parties to its rulemaking proceeding. Other interested persons may obtain BPA's filing from the Commission's Division of Public Information at the address shown above under "Addresses."

### IV. Paperwork Reduction Act Statement

Any revised information collection provisions in the BPA methodology that may be included in Part 301 of the Commission's regulations are being submitted to the Office of Management and Budget (OMB) for its approval under the Paperwork Reduction Act, 44 U.S.C. 3501-3502 (1932), and OMB's regulations, 48 FR 13,656 (1983) (to be codified at 5 CFR Part 1320). Inquiries relating to the information collection provisions in this rule can be made to: Jan Macpherson, Office of the General Counsel, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426 (202) 357-8033. Comments on the information collection provisions can be sent to the Office of Information and Regulatory Affairs of OMB, New Executive Office Building, Washington, D.C. 20503 (Attention: Desk Officer for the Federal Energy Regulatory Commission).

The information collection requirements of the revised BPA methodology will not be effective, even on an interim basis, until OMB's approval and control number have been received by the Commission.

### List of Subjects in 18 CFR Part 301

Electric power rates, Electric utilities, Reporting and recordkeeping requirements.

In consideration of the foregoing, the Commission proposes to review Part 301, Chapter A, Title 18 of the Code of Federal Regulations according to the average system cost methodology submitted to the Commission by the Bonneville Power Administration on June 5, 1984.

By direction of the Commission.  
Kenneth F. Plumb,  
Secretary.

(FR Doc. 84-12000 Filed 6-11-84; 8:05 am)  
BILLING CODE 6717-01-3

### DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Housing—Federal Housing Commissioner

#### 24 CFR Part 205

[Docket No. R-24-1174; FR-1779]

Mortgage Insurance for Land Development (Title X) Refinancing of Existing Mortgage

AGENCY: Office of the Assistant Secretary for Housing—Federal Housing Commissioner, HUD.

ACTION: Proposed rule.

SUMMARY: This rule proposes to provide for HUD-insured refinancing of existing mortgages insured under Title X of the National Housing Act. The provision for refinancing would provide relief to mortgagors when interest rates decline and would reduce the risk of foreclosure to the Department.

DATE: Comment due August 13, 1984.

ADDRESS: Interested persons are invited to submit written comments regarding this proposed rule to the Rules Docket Clerk, Office of the General Counsel, Room 10278, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, D.C. 20410. Communications should refer to the docket number and title. A copy of each communication submitted will be available for public inspection and copying during regular business hours at the above address.

FOR FURTHER INFORMATION CONTACT: John J. Coonts, Director, Single Family Development Division, Department of Housing and Urban Development, Room 9270, 451 Seventh Street SW., Washington, D.C. 20410; telephone (202)

<sup>4</sup> Letter of May, 1984 from the Administrator of BPA to the Chairman of this Commission

<sup>5</sup> 43 FR 46 970-71 (Oct. 17, 1978).

755-6720. (This is not a toll-free number.)

**SUPPLEMENTARY INFORMATION:** Section 1002 of the National Housing Act, 12 U.S.C. 1749bb (the "Act") authorizes the Secretary to insure a mortgage for the acquisition and development of real property to be used for residential purposes. The regulations governing eligibility of these mortgages for insurance are contained in 24 CFR Part 205. Section 223(a)(7) of the Act authorizes the Secretary to refinance an existing mortgage insured under the Act. Although the Act permits refinancing there are no provisions in the current regulations for refinancing an existing mortgage insured under Title X of the Act.

Borrowers with mortgages insured under the current regulations during a period of high interest rates are obligated to continue to pay interest at the specified rate even though interest rates decline. This may result in an undue hardship for the mortgagor and can increase the risk of foreclosure to the Department. This rule would allow mortgagors to refinance their mortgages, thereby enabling them to take advantage of reduced interest rates to lower their debt service requirements.

A technical correction would be made to § 205.47(b)(3) to correct a misnomer. A longer maturity may be approved in order to avoid undue hardship to the mortgagor, not the mortgagee.

The rule does not constitute a "major rule" as that term is defined in section 1(b) of the Executive Order on Federal Regulation issued by the President on February 17, 1981. Analysis of the proposed rule indicates it does not: (1) Have an annual effect on the economy of \$10 million or more; (2) cause a major increase in costs or prices for consumers, individual industries, Federal, State or local government agencies, or geographic regions; or (3) have significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

A Finding of No Significant Impact with respect to the environment has been made in accordance with HUD regulations in 24 CFR Part 50, which implements section 102(2)(C) of the National Environmental Policy Act of 1969 42 U.S.C. 4332. The Finding of No Significant Impact is available for public inspection and copying during regular business hours in the Office of the Rules Docket Clerk, Office of the General Counsel, Room 10278, Department of

Housing and Urban Development, 451 Seventh Street SW., Washington, D.C. 20410.

This rule is listed at 49 FR 15923 as item H-41-83 in the Department's Semiannual Agenda of Regulations published on April 19, 1984, under Executive Order 12291 and the Regulatory Flexibility Act.

In accordance with 5 U.S.C. 605(b) (the Regulatory Flexibility Act) the Undersigned hereby certifies that this rule does not have a significant economic impact on a substantial number of small entities because there are only a few projects which carry mortgages at higher interest rates and which would contemplate refinancing.

The Catalog of Federal Domestic Assistance program number is 14.125—Mortgage Insurance—Land Development and New Communities (Title X).

#### List of Subjects in 24 CFR Part 205

Community facilities, Mortgage insurance, Land development.

#### PART 205—[AMENDED]

Accordingly, the Department proposes to amend 24 CFR Part 205 as follows:

##### 1. By revising § 205.47(b)(3) as follows:

**§ 205.47 Mortgage amortization and maximum maturity.**

\* \* \* \* \*

(b) \* \* \*

(3) In a case where the Commissioner determines that unusual or unforeseen circumstances make such longer maturity necessary in order to avoid undue hardship to the mortgagor.

##### 2. By adding a new § 205.68, to read as follows:

**§ 205.68 Eligibility of refinancing transactions.**

A mortgage given to refinance an existing insured mortgage may be insured under this subpart. The principal amount and the term of the new mortgage shall not exceed the unpaid amount and the unexpired term of the existing insured mortgage.

Authority: Section 223(a)(7), National Housing Act, 12 U.S.C. 1715n.

Dated: June 4, 1984.

Shirley M. Wiseman,  
General Deputy Assistant Secretary for  
Housing—Federal Housing Commissioner.

[FR Doc. 84-15832 Filed 6-11-84; 8:45 am]

BILLING CODE 4210-27-M

## VETERANS ADMINISTRATION

### 38 CFR Parts 8 and 9

#### National Service Life Insurance, Servicemen's Group Life Insurance and Veterans' Group Life Insurance

**AGENCY:** Veterans Administration.

**ACTION:** Proposed regulations.

**SUMMARY:** The Veterans Administration is amending certain regulations to: (1) Reflect that National Service Life Insurance (NSLI) policyholders have the option to purchase paid-up additions with their dividends; (2) Ensure that no claims for Servicemen's or Veterans' Group Life Insurance (SGLI/VGLI) are denied because of a failure to file a claim within four years of the insured's death; and (3) Make the insurer under the SGLI/VGLI programs responsible only for the return of premiums paid in excess of the premiums payable for the maximum allowable combined amount of SGLI/VGLI coverage.

**DATES:** Comments must be received on or before July 11, 1984. It is proposed that the amendment concerning NSLI paid-up additions be effective on the date of final approval and apply to applications for insurance submitted on or after July 1, 1972. It is further proposed that the amendment regarding timely filing of a claim for SGLI/VGLI be effective on the date of final approval and apply to all claims determined on or after October 1, 1982. These dates will then coincide with the effective dates of the respective legislative changes. Finally, it is proposed that the effective date of the change concerning the return of excess premiums paid be the date of final approval.

**ADDRESSES:** Interested persons are invited to submit written comments, suggestions, or objections regarding these proposed regulations to: Administrator of Veterans Affairs (271A), 810 Vermont Avenue NW., Washington, DC 20420. All written comments received will be available for public inspection only in the Veterans Services Unit, room 132, of the above address, between the hours of 8:00 a.m. and 4:30 p.m. Monday through Friday (except holidays) until July 25, 1984.

**FOR FURTHER INFORMATION CONTACT:** Mr. Robert W. Carey, Assistant Director for Insurance, Veterans Administration Regional Office and Insurance Center, P.O. Box 8079, Philadelphia, PA 19101 (215-951-5360).

**SUPPLEMENTARY INFORMATION:** Public Law 92-188 authorized a new dividend option for NSLI, under which a policyholder may request that dividends



on his or her participating policy be used to purchase additional paid-up insurance. The regulation change to 38 CFR 8.26 will update the regulation to reflect that a paid-up addition dividend option is available.

Under prior law, when a SGLI or VGLI claim was not filed within four years of the insured's death, the proceeds would escheat to the SGLI revolving fund. Public Law 97-308 amended the law to ensure that no claims are denied because of a failure to file within the four year period. The change to 38 CFR 9.18(d) will amend the regulation to conform with the change in the law.

Under existing law, no person may carry a combined amount of SGLI and VGLI in excess of \$35,000. Despite this provision, some insureds have paid premiums for both SGLI and VGLI in excess of the coverage allowed. The regulatory amendment to 38 CFR 9.36 will state that the insurer under the SGLI/VGLI programs will be responsible only for the return of premiums paid in excess of the premiums payable for the maximum allowable amount of coverage.

The Administrator hereby certifies that these proposed rules, if promulgated, will not have a significant economic impact on a substantial number of small entities as they are defined in the regulatory Flexibility Act (RFA), 5 U.S.C. 601-612. Pursuant to 5 U.S.C. 605(b), these proposed rules are therefore exempt from the initial and final regulatory flexibility analyses requirements of sections 603 and 604. The reason for this certification is that these rules will affect only certain NSLI, SGLI and VGLI insureds. They will, therefore, have no significant direct impact on small entities in terms of compliance costs, paperwork requirements or effects on competition. The agency has also determined that these regulations are nonmajor in accordance with Executive Order 12291, Federal Regulation. These regulations will not have a large effect on the economy, will not cause an increase of costs or prices, and will not otherwise have any significant adverse economic effects.

Because statutes upon which these regulatory amendments are based are already in effect, the administrator has determined that these amendments should be effective immediately upon final approval.

#### List of Subjects in 38 CFR Parts 8 and 9

Life insurance, Veterans.

(Catalog of Federal Domestic Assistance Program number 64.103)

Approved: May 23, 1984.

By direction of the Administrator.

Everett Alvarez, Jr.,  
Deputy Administrator.

38 CFR Parts 8 and 9, Insurance, are amended as follows:

#### PART 8—[AMENDED]

1. In § 8.26, paragraph (b) is revised as follows:

##### § 8.26 How paid

\* \* \* \* \*

(b) Unless and until the VA receives a written request from the insured that National Service Life Insurance dividends be paid in cash, or that they be used to pay an insurance indebtedness, or that they be placed on deposit or be used to pay premiums in advance, or that they be used to pay the premiums on a particular policy or policies, or that they be used to purchase paid-up additions, any such dividends shall be held to the credit of the insured to be applied to pay monthly premiums becoming due and unpaid after the date such dividends are payable on any National Service or United States Government Life Insurance policy or policies held by the insured: *Provided*, That such dividend credits will be applied as of the due date of any unpaid premium. Dividend credits will earn interest at such rate and in such manner as the Administrator may determine. (38 U.S.C. 797(c))

\* \* \* \* \*

#### PART 9—[AMENDED]

##### § 9.18 [Amended]

2. In § 9.18, paragraph (d) is removed and reserved.

3. In § 9.36, paragraph (a) is revised as follows:

##### § 9.36 Veterans' Group Life Insurance.

Veterans' Group Life Insurance shall be issued under the following rules:

(a) The insurance shall be issued in the amount of \$5,000, \$10,000, \$15,000, \$20,000, \$25,000, \$30,000 or \$35,000. No person may carry a combined amount of Servicemen's Group Life Insurance and Veterans' Group Life Insurance in excess of \$35,000 at any one time. Should any person remit premiums in excess of the premiums payable for the maximum allowable amount of coverage, the insurer shall be responsible only for the refund of such excess premiums paid. (38 U.S.C. 777)

\* \* \* \* \*

FR Doc. 84-1103 Filed 6-11-84; 8:55 am

BILLING CODE 6320-01-M

#### ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Part 52

[A-7-FRL 2605-7; EPA Action NE 1410]

#### Approval and Promulgation of the Nebraska State Implementation Plan for Lead

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rulemaking.

**SUMMARY:** EPA is today proposing to approve a draft submittal of the lead State Implementation Plan (SIP) for Omaha submitted on March 9, 1984, and supplemented by a letter dated April 20, 1984, by the State of Nebraska. EPA proposes to approve this control strategy for Omaha, with the understanding that the State will submit an enforceable compliance schedule for reducing lead emissions from the ASARCO lead refinery in Omaha prior to final rulemaking. This control strategy is intended for the use of attaining and maintaining the lead NAAQS. The public is asked to comment on this proposed action as identified in the Supplementary Information.

**DATE:** Comments on this proposal must be received by July 12, 1984 in order to be considered.

**ADDRESSES:** Written comments should be sent to Dewayne E. Durst at EPA Region VII at the address given below. Copies of the materials submitted by Nebraska and EPA's technical support document may be examined during normal business hours at the following locations:

Environmental Protection Agency,  
Region VII, Air Branch, 324 East 11th  
Street, Kansas City, Missouri 64106  
Department of Environmental Control,  
301 Centennial Mall, Lincoln,  
Nebraska 68503

**FOR FURTHER INFORMATION CONTACT:**  
Dewayne E. Durst or Jane C. Johnson at  
EPA Region VII, Air Branch, or call (816)  
374-3791, (FTS) 758-3791.

**SUPPLEMENTARY INFORMATION:** On January 9, 1981, the Governor of Nebraska submitted the Nebraska lead SIP to EPA for approval. On November 29, 1983 (48 FR 53637), EPA approved all parts of the Nebraska lead SIP, except the portion of the plan pertaining to Omaha. The reader is referred to the proposal published on August 19, 1983, in the Federal Register (48 FR 39069) for a discussion of the contents of the plan. On December 29, 1983 (48 FR 57323), EPA proposed to approve the lead SIP for Omaha, except for the demonstration



of attainment and control measures which were proposed to be disapproved. Today's proposal addresses only the demonstration of attainment and control measures for the Omaha lead SIP.

On March 9, 1984, the State of Nebraska submitted additional draft material for the Omaha lead SIP. A hearing was held on April 13, 1984, before the Nebraska Environmental Control Council to receive comments on the proposed control strategy for Omaha. The Council then adopted the proposed control strategy as a revision to the Nebraska lead SIP for Omaha. This submittal addresses the demonstration of attainment and control measures for the Omaha lead SIP. As stated in the December 29, 1983, proposal, there is only one operating point source in the Omaha area, a lead refinery located northeast of the central business district on the banks of the Missouri River. The control strategy described in the State submittal addresses emission controls for this lead refinery.

The SIP revision submittal includes a demonstration of attainment for the Omaha area, control measures to be implemented by the ASARCO lead refinery, 1982 and 1983 monitoring data for Omaha and Bellevue, and a graphic representation of lead concentrations for Omaha. The control measures require reduction of process fugitive emissions from the smelting and refining operations at the ASARCO lead refinery. Other control measures required for the ASARCO refinery are improved baghouse dust handling practices, modified baghouse stacks to result in good engineering practice design, and control of on plant windblown dust and resuspended dust from vehicular traffic by applying dust suppressants and paving. For more detailed information on these control measures, the reader is referred to the technical support document available for inspection at the above addresses. EPA has determined that these control measures are adequate for attaining and maintaining the lead NAAQS.

The control strategy which has been developed for Omaha attempts to deal with the uncertainty of the lead emission inventory and dispersion modeling by including contingencies which provide for adjustment of the strategy as it is being implemented. The plan provides for implementing all control measures needed to meet the lead standard as expeditiously as possible, but in no case later than thirty-six months from EPA approval. There are a great number of individual control measures and activities listed in the

draft submittal. For those measures which are not complicated and will not require much time to implement, only start and completion dates are required, but for those measures which involve longer lead times or construction contracts, additional interim dates must be specified.

The draft strategy states that any specific measure may be revised, modified, or replaced as long as the new measure continues to demonstrate attainment of the lead NAAQS. In some cases, alternative control measures have been specified, but for other measures, they have not. The reason for listing the alternatives is that in order to approve the demonstration of attainment in a SIP, it must include a description of each control measure and a demonstration that the control strategy provides for attainment of the standard (40 CFR 51.87(a)(1)) with any alternative allowed. In addition to listing the control measures with alternatives and the demonstration of attainment, a schedule must be provided for each control measure and for those measures which extend more than one year, interim dates or increments of progress must be provided (40 CFR 51.15), and where alternative control measures are listed, the dates for selecting alternatives must be specified.

In a letter dated April 20, 1984, the State of Nebraska committed to provide an enforceable compliance schedule in the form of an Administrative Order prior to final rulemaking. This Administrative Order will not alter the control strategy, but will identify specific measures to be taken and make it enforceable.

Another contingency included in the present control strategy is the option to alter the amount of control based upon a comparison of measured data from the new lead sampling station and predicted concentrations based upon the dispersion modeling. While it does appear that the maximum modeled values would be at the high end of concentrations which would be expected, there is no assurance that monitoring data from 1984 will represent the critical values which might be monitored. The reason for this is the variability of meteorological conditions from one year to the next, and the impact of these variations on ambient concentrations of air pollutants, including lead. Thus, EPA agrees that a comparison of modeled and measured concentrations must be made to determine if the modeling is reasonable, but we do not agree that the adequacy of the control strategy can be based solely on air quality data measured at

one monitoring station during 1984. If, after a comparison of the measured and modeled concentrations, it is determined the control strategy should be revised to eliminate some of the control measures, a revised lead SIP should be prepared and submitted.

Several control measures are only marginally specified, several rely on evaluation of effectiveness or feasibility or will be implemented "if necessary," without further clarification of what constitutes "necessary." These measures need to be specified more concretely to enable determination of whether the measures are being implemented. Examples of this lack of specificity are provided in the technical support document.

EPA is working with the State of Nebraska to develop an acceptable Administrative Order. The State has submitted a draft of the Order, which is available for public inspection at the locations listed in the "ADDRESSES" section, above.

One of the possible measures to be undertaken by ASARCO, Inc. would be an increase in the height of the stacks on the baghouse. On October 13, 1983, the United States Court of Appeals for the District of Columbia Circuit remanded portions of EPA's stack height regulations (40 CFR 51.1, 51.12 and 51.18 (1983)) to the Agency for reconsideration. *Sierra Club v. EPA*, 719 F.2d 436. Recently, a group of industry intervenors filed a petition for a writ of certiorari with the United States Supreme Court, where it is still pending. The stack heights in this SIP action, however, are below the *de minimus* height of 65 meters. The *de minimus* provision of EPA's regulations (40 CFR 51.1(ii)(1)(1983)) was not challenged in the Court of Appeals. Accordingly, in EPA's opinion the possible raising of the baghouse stacks at ASARCO's facility to a height of approximately 45 meters (20 meters below the *de minimus* height specified in EPA's regulations) is approvable. If, however, the *de minimus* provision of EPA's regulations is modified as a result of the further judicial process, it may be necessary to review this SIP action consistent with any change in EPA's regulation.

#### Proposed Action

EPA has evaluated the submittals from the State of Nebraska concerning the lead SIP control strategy for Omaha. In this action, EPA proposes to approve the Nebraska lead SIP for Omaha as meeting the following regulations: 40 CFR 51.80, Demonstration of Attainment and 51.87, Control Measures, with the understanding that the State of

Nebraska will submit an enforceable compliance schedule, meeting the requirements of 40 CFR 51.15, prior to final rulemaking. All other portions of the Nebraska lead SIP for Omaha were proposed for approval on December 29, 1983 (48 FR 57323).

This action is being proposed under the "parallel processing" procedure (47 FR 27073). If the control strategy which the State of Nebraska submits in final form differs substantially from the material already submitted, EPA will evaluate those changes and may publish a revised Notice of Proposed Rulemaking.

The Administrator's final decision to approve the Omaha control strategy for the Nebraska lead SIP will be based on whether it meets the requirements of Section 110 of the Clean Air Act, as amended, EPA regulations in 40 CFR Part 51, and comments received in response to today's proposal and the December 29, 1983 (48 FR 57323) proposal.

#### Implications of Action

EPA reached an agreement on July 26, 1983, with the Natural Resources Defense Council (NRDC) and other plaintiffs who filed a citizens suit under section 304(a) of the Clean Air Act. The suit, *NRDC v. Ruckelshaus*, No. 82-2137(D.D.C.), concerned the action EPA must take on lead implementation plans. Further information on the Settlement Agreement and Consent Decree appears in the Federal Register of August 10, 1983 (48 FR 36250). The Settlement Agreement and Consent Decree established specific deadlines for completion of SIPs for lead. This proposed action on the Nebraska lead SIP for Omaha is consistent with that Settlement Agreement and Consent Decree. Under the Agreement, EPA must provide opportunity for public comment, and publish final action on its proposed approval of the Nebraska lead SIP by August 1, 1984. If EPA's final action is to disapprove any part of the State submittal, the Agency must propose a Federal Implementation Plan (FIP) for Nebraska by October 1, 1984.

Under 5 U.S.C. 605(b), the Administrator has certified that SIP approvals do not have significant economic impact on a substantial number of small entities (46 FR 8709).

The Office of Management and Budget has exempted this rule from the requirements of section 3 of Executive Order 12291.

This notice of proposed rulemaking is issued under the authority of sections 110 and 301 of the Clean Air Act (42 U.S.C. 7410 and 7601).

#### List of subjects in 40 CFR Part 52

Air Pollution Control, Ozone, Sulfur Oxides, Nitrogen Oxides, Lead, Particulate Matter, Carbon Monoxide, Hydrocarbons, and Intergovernmental Relations.

Dated May 3, 1984.

Morris Kay,

Regional Administrator.

(FR Doc. 84-10349 Filed 6-11-84; 8:45 am)

BILLING CODE 6550-02-M

#### 40 CFR Part 60

[AD-FRL 2305-6]

**Standards of Performance for New Stationary Sources: Addition of Appendix F, Quality Assurance Procedures, Procedure 1: Reopening of Comment Period**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Reopening of Comment Period.

**SUMMARY:** Addition of Appendix F, quality assurance procedures for continuous emission monitors used as the compliance method was proposed March 14, 1984 (49 FR 9676). The date for completion of the comment period for this proposal was specified to be May 14, 1984. The Agency has received requests from two commenters to extend the comment period to allow for more complete review and comment on the proposal. The purpose of this notice is to reopen the comment period and extend the comment deadline to July 13, 1984.

**DATES:** *Comments.* Comments must be received on or before July 13, 1984.

**ADDRESSES:** *Comments.* Comments should be submitted (in duplicate if possible) to: Central Docket Section (LE-131), Attention Docket Number A-80-29, U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460.

**Docket.** Docket Number A-80-29, containing supporting information used in developing the proposed rulemaking, is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section (LE-131), West Tower Lobby, Gallery 1, Waterside Mall, 401 M Street SW., Washington, D.C. 20460. A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Mr. Darryl J. von Lehmden, Quality Assurance Division, Environmental Monitoring Systems Laboratory (MD-77A), U.S. Environmental Protection Agency, Research Triangle Park, North

Carolina 27711, telephone number (919) 541-2415.

Dated: June 6, 1984.

Joseph A. Cannon,  
Assistant Administrator for Air and Radiation.

(FR Doc. 84-10349 Filed 6-11-84; 8:45 am)

BILLING CODE 6550-02-M

#### FEDERAL COMMUNICATIONS COMMISSION

#### 47 CFR Part 73

[Gen. Docket No. 84-282]

**Inquiry Into § 73.1910 of the Commission's Rules Concerning the General Fairness Doctrine Obligations of Broadcast Licensees; Order Extending Time for Filing Comments and Reply Comments**

**AGENCY:** Federal Communications Commission.

**ACTION:** Notice of Inquiry; Extension of comment/reply comment period.

**SUMMARY:** In response to a motion to extend comment and reply comment periods filed by Media Access Project, the Commission grants a limited extension to file initial and reply comments in Gen. Docket 84-282 relating to the general fairness doctrine obligations imposed on broadcasters, and published on May 14, 1984 on page (49 FR) 20317.

**DATES:** Comment and reply comment dates are extended to September 6, 1984, and October 8, 1984, respectively.

**ADDRESSES:** Federal Communications Commission, Washington, D.C. 20554.

**FOR FURTHER INFORMATION CONTACT:** Steve Bailey (202) 254-3560.

#### Order Extending Comment and Reply Comment Filing Periods

In the matter of inquiry into § 73.1910 of the Commission's Rules and Regulations concerning the general fairness doctrine obligations of broadcast licensees: Gen. Docket No. 84-282.

Adopted: June 4, 1984.

Released: June 5, 1984.

1. On April 11, 1984, the Commission adopted a notice of inquiry in the above-captioned proceeding relating to the obligations imposed upon broadcast licensees under the general fairness doctrine. *Notice of Inquiry in Gen. Docket No. 84-282*, FCC 84-140 (released May 8, 1984). By issuance of the notice, it solicited public comment on all aspects of the fairness doctrine including its purposes, effects, and relevancy in light of significant changes

in the mass media marketplace and recent developments in First Amendment jurisprudence and communications law in general.

2. On May 17, 1984, Media Access Project (MAP),<sup>1</sup> pursuant to § 1.46 of the Commission's Rules and Regulations, filed a motion for extension of time requesting that the initial comment period in the above-captioned proceeding be extended from August 6, 1984, to November 16, 1984, and the reply comment period from September 5, 1984, to February 6, 1985. In support of its request, MAP explains that "an unusually lengthy period of time for comments" is sought "due to the extraordinary nature of the Notice of Inquiry." MAP maintains that this proceeding involves "the most important element of the current regulatory system's protection of the public interest," "contemplates a major departure" from previous Commission policies, suggests "changes through a voluminous, detailed and complex legal

document, advancing numerous new and unexplored issues of fact and law." According to MAP, analysis of the issues in this proceeding will require "financial resources, legal expertise and policy research not available to civic, consumer, minority, women's, religious and labor organizations." Given the importance of this particular proceeding, the limited resources of public interest groups, the detailed policy and legal arguments set forth against retention of the doctrine, the profound and pervasive impact repeal or modification of the fairness doctrine would have on the public, MAP maintains that a longer than usual comment period is essential for meaningful public participation and comment.

3. While we agree with MAP that the general fairness doctrine is at present an important component of broadcast regulation and that our inquiry into the doctrine is a matter of considerable public importance, we disagree with MAP's contention that grant of such a lengthy extension is essential for a meaningful opportunity for public participation and comment. The time periods we have set—approximately 90 days for the filing of initial comments from the release date of the notice and 30 days thereafter for reply comments—provide an adequate opportunity for written analysis and comment on the issues raised by the notice. In addition, we have stated our intention "to provide an opportunity at some stage in this proceeding either through an *en banc* Commission meeting or some other oral proceeding for legal scholars, communications experts, government policymakers, and members of the public" to discuss the First Amendment issues relating to the fairness doctrine. *Notice, supra*, at para. 4. Together, these procedures should prove ample in affording interested persons a meaningful opportunity to participate in this proceeding.

4. We are also disinclined to grant the requested extension for another reason. As we emphasized in our notice, we have no "intention to alter or change any existing policies or laws relating to the fairness doctrine" in *this* inquiry proceeding but that *if* we determined that substantive changes should be made to existing policies or rules, we would institute a notice of proposed rule making or, if more appropriate, recommend such changes in the form of legislative proposals to Congress. *Id., supra*, para. 2. Given the fact that no substantive changes to the fairness doctrine are proposed by this inquiry and therefore interested persons will have further opportunity to comment upon any substantive recommendations coming forth from this inquiry, we do not believe that an "unusually lengthy period" for initial and reply comments is necessary.

5. Although a lengthy extension does not appear warranted, we will grant a limited extension as set forth below so that parties may have some additional time to address the issues raised in the proceeding. We emphasize, however, that we do not contemplate granting any further extensions.

6. Therefore, it is hereby ordered, that pursuant to applicable procedures set out in §§ 1.4 and 1.415 of the Commission's Rules and Regulations, 47 CFR 1.4 and 1.415, and the authority delegated in 0.251 of the Commission's Rules and Regulations, 47 CFR 0.251, interested persons may file comments on or before September 8, 1984 and reply comments on or before October 8, 1984.

7. It is further ordered, that the motion for extension of time filed by Media Access Project is granted to the extent indicated above and otherwise is denied.

Bruce E. Foia,  
General Counsel.

[FR Doc. 84-15534 Filed 6-11-84; 8:45 am]  
BILLING CODE 6712-01-M

<sup>1</sup> Media Access Project's request is filed on behalf of the following: Action for Children's Television, AFSCME, Anti-Defamation League of B'nai B'rith, Black Citizens for Fair Media, Capital Press Club, Citizens Communication Center, Communication Commission of the National Council of Churches, Communications Task Force of the National Conference of Black Lawyers, Consumer Federation of America, Critical Mass Energy Project, Department of Communication of the U.S. Catholic Conference, Environmental Action, Environmental Policy Institute, Friends of the Earth, Fund for Secure Energy, International Union, UAW, Jobs in Energy, Leadership Conference on Civil Rights, League of United Latin American Citizens, League of Women Voters of the United States, National Association for Better Broadcasting, National Bar Association, National Black Media Coalition, National Council of La Raza, National Education Association, National Organization for Women Legal Defense and Education Fund, National Urban League, Nuclear Information and Resource Service, Office of Communication of the United Church of Christ, Organizing Media Project, Dr. Everett C. Parker, People for the American Way, Public Citizen, Public Media Center, Sierra Club, Solar Lobby/Center for Renewable Resources, Telecommunications Research and Action Center, and Union of Concerned Scientists.

# Notices

Federal Register

Vol. 49, No. 114

Tuesday, June 12, 1984

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.

## ADMINISTRATIVE CONFERENCE OF THE UNITED STATES

### Public Meeting of Assembly

Notice is hereby given, pursuant to the Federal Advisory Committee Act, Pub. L. No. 92-463, that the membership of the Administrative Conference of the United States, which makes recommendations to administrative agencies, to the President, Congress, and the Judicial Conference of the United States regarding the efficiency, adequacy, and fairness of the administrative procedures used by administrative agencies in carrying out their programs, will meet in Plenary Session on Thursday, June 28, 1984 at 1:30 p.m. and Friday, June 29, 1984 at 9:15 a.m. in The Amphitheater of the Federal Home Loan Bank Board, 1700 G Street, NW., Washington, D.C.

The Conference will consider proposed recommendations on the following subjects:

1. Public regulation of siting industrial development projects.
2. Procedures for product recalls.
3. Implementation and effects of the Government in the Sunshine Act.
4. Negotiated cleanup of hazardous waste sites under the CERCLA.
5. Immigration and Naturalization Service procedures for deciding exclusion, detention, and asylum matters.

Plenary sessions are open to the public. Further information on the meeting, including copies of the proposed recommendations, may be obtained from the Office of the Chairman, 2120 L Street, NW., Suite 500, Washington, D.C. 20037, telephone (202) 254-7020.

Dated: June 5, 1984.

Richard K. Berg,  
General Counsel.

[FR Doc. 84-10223 Filed 6-11-84; 8:45 am]  
BILLING CODE 6110-01-M

## DEPARTMENT OF AGRICULTURE,

### Federal Grain Inspection Service

#### Advisory Committee Meeting

Pursuant to the provisions of section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463), notice is hereby given of the following meeting:

Name: Federal Grain Inspection Service Advisory Committee.

Date: June 29, 1984.

Place: U.S. Department of Agriculture, 1400 Independence Avenue, SW., Room 2020, South Building, Washington, D.C. 20250.

Time: 8:30 a.m.

Purpose: A subcommittee to review and prepare recommendations to the Federal Grain Inspection Service Advisory Committee on insect infestation.

The meeting will be open to the public. Public participation will be limited to written statements unless otherwise requested by the Subcommittee Chairman. Persons, other than members, who wish to address the Subcommittee at the meeting or submit written statements before or at the meeting should contact William Hay, Subcommittee Chairman, 3526 Pillsbury Center, Minneapolis, MN 55402, telephone (612) 330-4819.

Dated: May 17, 1984.

K. A. Gilles,  
Administrator.

[FR Doc. 84-10225 Filed 6-11-84; 8:45 am]  
BILLING CODE 3410-EN-M

## Soil Conservation Service

### English Coulee Watershed, North Dakota; Record of Decision

AGENCY: Soil Conservation Service, USDA.

ACTION: Notice of Availability of a Record of Decision.

SUMMARY: August J. Dornbusch, Jr., responsible Federal official for projects administered under the provisions of Pub. L. 83-568, 16 U.S.C. 1001-1003, in the State of North Dakota, is hereby providing notification that a record of

decision to proceed with the installation of the English Coulee Watershed project is available. Single copies of this record of decision may be obtained from August J. Dornbusch, Jr. at the address shown below.

FOR FURTHER INFORMATION CONTACT: August J. Dornbusch, Jr., State Conservationist, Soil Conservation Service, Federal Building, Room 270, 3rd & Rosser Avenue, P.O. Box 1458, Bismarck, North Dakota 58502, telephone (701) 255-4011, ext. 421.

(Catalog of Federal Domestic Assistance Program No. 10.504, Watershed Protection and Flood Prevention. State and local review procedures for Federal and federally assisted programs and projects are applicable)

Dated: June 4, 1984.

August J. Dornbusch, Jr.,  
State Conservationist.

[FR Doc. 84-10223 Filed 6-11-84; 8:45 am]  
BILLING CODE 3410-15-M

## Woodlake-Antelope Valley Watershed, California; Environmental Impact

AGENCY: Soil Conservation Service, USDA.

ACTION: Notice of a Finding of No Significant Impact.

SUMMARY: Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969; the Council on Environmental Quality Guidelines (40 CFR Part 1500); and the Soil Conservation Service, (7 CFR Part 650); the Soil Conservation Service, U.S. Department of Agriculture, gives notice that an environmental impact statement is not being prepared for the Woodlake-Antelope Valley Watershed, Tulare County, California.

FOR FURTHER INFORMATION CONTACT: Eugene E. Andreuccetti, State Conservationist, Soil Conservation Service, 2828 Chiles Road, Davis, CA 95616, telephone (916) 449-2848.

SUPPLEMENTARY INFORMATION: The environmental assessment of this federally assisted action indicates that the project will not cause significant local, regional, or national impacts on the environment. As a result of these findings, Eugene E. Andreuccetti, State Conservationist, has determined that the

preparation and review of an environmental impact statement are not needed for this project.

The project concerns a plan for flood control. The planned works of improvement include constructing 1.89 miles of new channel, enlarging 0.75 miles of existing channel, and floodproofing one building.

The Notice of a Finding of No Significant Impact (FONSI) has been forwarded to the Environmental Protection Agency and to various Federal, State, and local agencies and interested parties. A limited number of copies of the FONSI are available to fill single copy requests at the above address. Basic data developed during the environmental assessment are on file and may be reviewed by contacting Eugene E. Andreuccetti.

No administrative action on implementation of the proposals will be taken until 30 days after the date of this publication in the Federal Register.

(Catalog of Federal Domestic Assistance Program No. 10.904, Watershed Protection and Flood Prevention Program. Executive Order 12372 regarding intergovernmental review of Federal and federally assisted programs and projects is applicable)

Dated: May 31, 1984.

Paul H. Calverley,

*Deputy State Conservationist.*

[FR Doc. 84-15677 Filed 6-11-84; 8:45 am]

BILLING CODE 3410-16-M

#### **Whitingham School Drainage RC&D Measure, Vermont**

**AGENCY:** Soil conservation Service.

**ACTION:** Notice of a finding of no significant impact.

**SUMMARY:** Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969; the Council on Environmental Quality Guidelines (40 CFR Part 1500); and the Soil Conservation Service Guidelines (7 CFR Part 650); the Soil Conservation Service, U.S. Department of Agriculture, gives notice that an environmental impact statement is not being prepared for the Whitingham School Drainage RC&D Measure, Windham County, Vermont.

**FOR FURTHER INFORMATION CONTACT:** John C. Titchner, State Conservationist, Soil Conservation Service, 69 Union Street, Winooski, Vermont, 05404, telephone (802) 951-6795.

**SUPPLEMENTARY INFORMATION:** The environmental assessment of this federally assisted action indicates that the project will not cause significant local, regional, or national impacts on the environment. As a result of these

findings, John C. Titchner, State Conservationist, has determined that the preparation and review of an environmental impact statement are not needed for this project.

The measure concerns a plan of critical area treatment at a school's recreational facility. The planned work includes surface and subsurface drainage and reseeded of disturbed areas. The drainage will be confined to the athletic field. Wetlands will not be affected.

The Notice of a Finding of No Significant Impact (FONSI) has been forwarded to the Environmental Protection Agency and to various Federal, State, and local agencies and interested parties. A limited number of copies of the FONSI are available to fill single copy requests at the above address. Basic data developed during the environmental assessment are on file and may be reviewed by contacting John C. Titchner, State Conservationist.

No administrative action on implementation of the proposal will be taken until 30 days after the date of this publication in the Federal Register.

(Catalog of Federal Domestic Assistance Program No. 10.901, Resource Conservation and Development Program. Office of Management and Budget Circular A-95 regarding State and local clearinghouse review of Federal and federally assisted programs and projects is applicable)

Dated: June 4, 1984.

John C. Titchner,  
*State Conservationist.*

[FR Doc. 84-15671 Filed 6-11-84; 8:45 am]

BILLING CODE 3410-16-M

#### **CIVIL RIGHTS COMMISSION**

##### **Iowa Advisory Committee; Amendment**

Notice is hereby given, pursuant to the provisions of the Rules and Regulations of the U.S. Commission on Civil Rights that a meeting of the Advisory Committee to the Commission originally scheduled for June 25-26, 1984, at Sioux City, Iowa (FR Doc 84-12995 on page 20533), has a new address, date, and time.

The meeting will convene at 9:45 a.m. and will end at 12:30 p.m., on June 26, 1984, at the Ramada Inn, Room 208, 929 Third Street, Des Moines, Iowa 50309.

Dated at Washington, D.C., June 6, 1984.

John I. Binkley,  
*Advisory Committee Management Officer.*

[FR Doc. 84-15626 Filed 6-11-84; 8:45 am]

BILLING CODE 6335-01-M

##### **Florida Advisory Committee; Public Meeting**

Notice is hereby given, pursuant to the provisions of the Rules and Regulations of the U.S. Commission on Civil Rights, that a meeting of the Florida Advisory Committee to the Commission will convene at 1:00 p.m. and will end at 5:00 p.m., on June 29, 1984, at the Tampa Airport Marriott, Charlotte Room, Tampa International Airport, Tampa, Florida 33309. The purpose of the meeting is to plan for the Regional State Advisory Committee conference and to make plans for future programs.

Persons desiring additional information, or planning a presentation to the Committee, should contact the Southern Regional Office at (404) 221-4391.

The meeting will be conducted pursuant to the provisions of the Rules and Regulations of the Commission.

Dated at Washington, D.C., June 5, 1984.

John I. Binkley,

*Advisory Committee Management Officer.*

[FR Doc. 84-15639 Filed 6-11-84; 8:45 am]

BILLING CODE 6335-01-M

##### **Maine Advisory Committee; Agenda and Public Meeting**

Notice is hereby given, pursuant to the provisions of the Rules and Regulations of the U.S. Commission on Civil Rights, that a meeting of the Maine Advisory Committee to the Commission will convene at 6:00 p.m. and will end at 8:30 p.m., on July 10, 1984, at the Maine Teachers Association, 35 Community Drive, Augusta, Maine 04333. The purpose of the meeting is to discuss Maine's Equal Rights Amendment, the Regional Conference of Advisory Committee members, equal employment opportunity programs of large employers, and education for Indo-Chinese refugees.

Persons desiring additional information, or planning a presentation to the Committee, should contact the Mid-Atlantic Regional Office at (202) 254-6670.

The meeting will be conducted pursuant to the provisions of the Rules and Regulations of the Commission.

Dated at Washington, D.C., June 6, 1984.

John I. Binkley,  
*Advisory Committee Management Officer.*

[FR Doc. 84-15651 Filed 6-11-84; 8:45 am]

BILLING CODE 6335-01-M

**DEPARTMENT OF COMMERCE****International Trade Administration**

[A-588-021]

**Preliminary Determination of Sales at Less Than Fair Value; Cell Site Transceivers From Japan**

**AGENCY:** International Trade Administration, Commerce.  
**ACTION:** Notice.

**SUMMARY:** We preliminarily determine cell site transceivers from Japan are being sold, or are likely to be sold, in the United States at less than fair value. Therefore, we have notified the United States International Trade Commission (ITC) of our determination, and we have directed the U.S. Customs Service to suspend liquidation of all entries of the subject merchandise. We have directed the U.S. Customs Service to require a cash deposit or the posting of a bond for each such entry in an amount equal to the estimated dumping margins, as described in the "Suspension of Liquidation" section of this notice. We found that critical circumstances exist with respect to imports of cell site transceivers from Japan, so liquidation is being suspended retroactively.

If this investigation proceeds normally, we will make our final determination by August 20, 1984.

**EFFECTIVE DATE:** June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:** Andrew Debicki, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street & Constitution Avenue, NW., Washington, D.C. 20230; telephone: (202) 377-5403.

**SUPPLEMENTARY INFORMATION:****Preliminary Determination**

We preliminarily determine there is a reasonable basis to believe or suspect cell site transceivers from Japan are being sold, or are likely to be sold, in the United States at less than fair value, as provided in section 733 of the Tariff Act of 1930, as amended (19 U.S.C. 1673b) (the Act).

We found the foreign market value of cell site transceivers from Japan exceeded the United States price on all sales. The overall weighted-average margin on all sales compared is 40.63 percent.

**Case History**

On December 28, 1983, we received a petition from E.F. Johnson and Company on behalf of the cell site transceivers industry in the United States. In accordance with the filing requirements

of § 353.36 of our regulations (19 CFR 353.36), the petition alleged that imports of cell site transceivers from Japan are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Act and that these imports are retarding, or threatening to retard the establishment of a United States industry. The petition alleged sales of cell site transceivers in the home market were being made at less than the cost of production. The petition also alleged that, pursuant to section 733(e) of the Act, "critical circumstances" exist in this case.

After reviewing the petition, we determined it contained sufficient grounds to initiate an antidumping investigation. We notified the ITC of our action and initiated the investigation on January 17, 1984 (49 FR 3109). On February 13, 1984, we were informed by the ITC that there is a reasonable indication that imports of cell site transceivers are materially injuring a United States industry.

**Scope of Investigation**

The merchandise covered by this investigation is cell site transceivers and related subassemblies as provided for in item 695.2976 of the Tariff Schedules of the United States Annotated. Cell site transceivers and related subassemblies are part of the radio frequency equipment (RF) in the base station (cell site) of a cellular radio communications system. This single package RF equipment functions as a locating receiver and provides simultaneous two-way voice and data communications between the base station and the subscriber's mobile telephone by using different frequencies to transmit and receive. Subassemblies are an assemblage of component parts dedicated for use in cell site transceivers as defined above.

**Fair Value Comparison**

To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States price with the foreign market value.

**United States Price**

As provided in section 772(b) of the Act, we used the purchase price of the subject merchandise to represent the United States price because the merchandise was sold to unrelated U.S. purchasers prior to its importation into the United States. We calculated the purchase price based on the F.O.B. price, El Segundo, California to United States purchasers. We deducted port charges, inland freight, ocean freight and

insurance costs incurred in delivering the product.

**Foreign Market Value**

In accordance with section 773(a)(2) of the Act, we used "Constructed Value" to determine the foreign market value. Kokusai Electric Company, Ltd. has not sold a product "such or similar" to that sold in the U.S. in either its home market or in a third country. The petitioner also alleged sales in the home market were at prices below the cost of producing cell site transceivers. To determine constructed value we examined production costs, including materials, labor and general expenses.

On February 23, 1983, Kokusai entered into a contract to sell cell site transceiver units to a U.S. buyer. The company had not previously manufactured this product. Production began in late 1983. Consequently, available manufacturing cost information covering the period from the beginning of production through March 1984 included certain pre-operating and start-up costs which were not indicative of production costs incurred in the ordinary course of business. To adjust for this situation, we calculated constructed value on the basis of "normalized costs of production" for manufacturing the product under the contract. Normalized costs of production is the weighted average of actual costs incurred through March 1984 and the anticipated cost of manufacturing the remaining number of units needed to fulfill the contract commitment. Under this method, pre-operating costs, start-up costs, research and development, and tooling are amortized, on a pro-rata basis, over the total number of units to be manufactured under the contract.

As noted, since Kokusai has only recently begun producing the product under investigation, we have sought to adjust its costs for possible start-up effects. We will continue to attempt to ascertain the extent to which Kokusai's costs reflect start-up effects. In determining the amounts for the cost factors of constructed value, we made certain adjustments to the figures submitted by the respondent. These adjustments entailed: (1) Including all costs incurred in the production of component parts manufactured by other divisions of Kokusai, (2) revising cost projections to reflect estimates supportable by verified information, (3) adding overhead costs to the direct costs of research and development and (4) resorting, in certain instances where the respondent has been unable to provide sufficient data, to the best information available. We used the



statutory 10 percent for general expenses because actual expenses did not meet the minimum of 10 percent of the sum of material and fabrication costs required by section 773(e)(1)(B)(i) of the Act. We calculated profit using the statutory minimum of eight percent of the sum of the general expenses and material and fabrication costs, as prescribed in section 773(e)(1)(B)(ii) of the Act. We made currency conversions from Japanese yen to U.S. dollars in accordance with § 353.56(a)(i) of our regulations.

#### *Determination of Critical Circumstances*

Counsel for petitioner alleged imports of cell site transceivers from Japan present "critical circumstances." Under section 773(e)(1) of the Act (19 U.S.C. 1673b(e)(1)), critical circumstances exist when the Department has a reasonable basis to believe or suspect that: (1)(a) There is a history of dumping in the United States or elsewhere of the merchandise under investigation, or (b) the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise under investigation at less than fair value; and (2) there have been massive imports of the merchandise under investigation over a relatively short period.

Based upon our analysis of the information, we preliminarily determine there is no history of dumping. We also considered whether the person by whom, or for whose account, these products were imported knew or should have known that the exporter was selling these products at less than fair value. It is the Department's position that a reasonable basis to believe or suspect that the importer knew or should have known that a product was being sold at less than its fair value exists where margins calculated on the basis of responses to the Department's questionnaire are sufficiently large. In this case the weighted-average margin is 40.63%. Where, as here, there is a corporate relationship between the exporter and the importer of record, margins of this size indicate that the importer knew or should have known that prices for sales to the United States (as adjusted according to the antidumping law) were sufficiently below home market sales prices. Consequently, there is a reasonable basis to believe or suspect that the importers knew or should have known that the merchandise was being sold in the United States at less than fair value. We also preliminarily find that imports

of the product subject to this investigation appear massive over a relatively short period.

In reaching this determination, we considered the specific circumstances surrounding Kokusai's contract with its U.S. buyer. First, at the time the contract was entered into, it represented a substantial portion of the U.S. market. Second, even with increased demand, the market remains relatively small in terms of the number of units needed to fill current demand. Third, Kokusai began deliveries shortly before the petition was filed. In the interim between the filing and the present, Kokusai's deliveries have increased rapidly and significantly to the point that completion of its contract obligations may reasonably be expected in the near future. Consequently, on the basis of our analysis of the information, we preliminarily determine imports of the product subject to this investigation appear massive over a relatively short period.

For the reasons described above, we preliminarily determine that "critical circumstances" do exist with respect to cell site transceivers from Japan.

#### *Verification*

As provided in section 776(a) of the Act, we will verify all information used in reaching our final determination.

#### *Suspension of Liquidation*

In accordance with section 773(d) and 773(e) of the Act, we are directing the United States Customs Service to suspend liquidation of all entries of cell site transceivers from Japan which are subject to this investigation. This suspension of liquidation applies to unliquidated entries of merchandise entered, or withdrawn from warehouse, for consumption, on or after the date which is 90 days before the date of publication of this notice in the Federal Register. The U.S. Customs Service shall require a cash deposit or the posting of a bond equal to the estimated amount of the weighted-average margin by which the foreign market value of the merchandise subject to this investigation exceeds the United States price. The suspension of liquidation will remain in effect until further notice. The weighted-average margins are as follows:

Manufacturers/producers/exporters	Weighted-average margins (percent)
Kokusai.....	40.63
All other manufacturers/producers/exporters.....	40.63

In accordance with section 773(f) of the Act, we are notifying the ITC of our determination. In addition, we are making available to the ITC all non-privileged and non-confidential information relating to this investigation. We will allow the ITC access to all privileged and confidential information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Import Administration.

The ITC will determine whether these imports are materially injuring or threatening materially to injure a U.S. industry, before the later of 120 days after the Department makes its preliminary affirmative determination or 45 days after the Department makes its final determination.

#### *Public Comment*

In accordance with § 353.47 of the Commerce Department Regulations, if requested, we will hold a public hearing to afford interested parties an opportunity to comment on this preliminary determination at 10:00 a.m. on July 11, 1984, at the United States Department of Commerce, Room 3708, 14th Street and Constitution Avenue, NW., Washington, D.C. 20230. Individuals who wish to participate in the hearing must submit a request to the Deputy Assistant Secretary for Import Administration, Room 3099B, at the above address within 10 days of this notice's publication. Requests should contain: (1) The party's name, address, and telephone number; (2) the number of participants; (3) the reason for attending; and (4) a list of the issues to be discussed. In addition, prehearing briefs in at least 10 copies must be submitted to the Deputy Assistant Secretary by July 5, 1984. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 353.46, within 30 days of this notice's publication, at the above address and in at least 10 copies.

This determination is being published pursuant to section 773(f) of the Act (19 U.S.C. 1673(b)).

Dated: June 5, 1984.

Alan F. Holmer,  
Deputy Assistant Secretary for Import Administration.

[FR Doc. 84-15833 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-DS-M



[A-583-401]

**Antidumping Duty Order; Bicycle Tires and Tubes From Taiwan**

**AGENCY:** Import Administration, International Trade Administration, Commerce.

**ACTION:** Notice.

**SUMMARY:** In separate investigations, concerning bicycle tires and tubes (BTT) from Taiwan, the United States Department of Commerce (the Department) and the United States International Trade Commission (ITC) have determined that BTT from Taiwan (with the exception of those produced by Nan Kang Rubber and Industrial Corporation (Nan Kang)) are being sold at less than fair value and that sales of BTT from Taiwan are materially injuring a United States industry. Therefore, all entries, or warehouse withdrawals, for consumption of BTT from Taiwan (except those produced by Nan Kang) made on or after January 20, 1984, the date on which the Department published its "Suspension of Liquidation" notice in the Federal Register, will be liable for the possible assessment of antidumping duties. Further, a cash deposit of estimated antidumping duties must be made on all such entries of BTT and withdrawals from warehouse, for consumption made on or after the date of publication of this antidumping duty order in the Federal Register.

**EFFECTIVE DATE:** June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:** Stuart Keitz, Office of Investigations, International Trade Administration, United States Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, D.C. 20230. Telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:** The merchandise covered by this order is pneumatic bicycle tires and tubes of rubber or plastic, whether sold together as units or separately, and currently classifiable under item numbers 772.48 and 772.57 of the *Tariff Schedules of the United States*, respectively.

In accordance with an order from the Court of International Trade issued on December 5, 1983, the Department published a Notice of Redetermination of Sales at Less Than Fair Value and Suspension Liquidation on January 20, 1984 (49 FR 2492). On May 30, 1984, in accordance with section 735(d) of the Tariff Act of 1930, as amended (the Act) (19 U.S.C. 1673d(d)), the Department received notification that imports of BTT from Taiwan are materially injuring a United States industry.

Therefore, in accordance with sections 736 and 751 of the Act (19

U.S.C. 1673e and 1675), the Department directs United States Customs officers to assess, upon further advice by the administering authority pursuant to section 736(a)(1) of the Act (19 U.S.C. 1673e(a)(1)), antidumping duties equal to the amount by which the foreign market value of the merchandise exceeds the United States price for all entries of BTT from Taiwan, except for BTT produced by Nan Kang. These antidumping duties will be assessed on all unliquidated entries of BTT (except for those produced by Nan Kang) entered, or withdrawn from warehouse, for consumption on or after January 20, 1984, the date on which the Department published its "Suspension of Liquidation" notice in the Federal Register.

On and after the date of publication of this notice, United States Customs officers must require, at the same time as importers would normally deposit estimated Customs duties on BTT, a cash deposit equal to the estimated weighted-average antidumping duty margins set forth below:

Manufacturers/producers/exporters	Weighted-average margin percentage
Chong Shin Rubber Industrial Co., Ltd.	1.03
Kenda Rubber Tire Corp., Ltd.	7.92
Hwa Feng Rubber Industrial Co., Ltd.	3.23
All other Manufacturers/Producers/Exporters Except Nan Kang Rubber and Industrial Corp.	3.65

This determination constitutes an antidumping duty order with respect to BTT from Taiwan, pursuant to section 735 of the Act (19 U.S.C. 1673e) and § 353.48 of the Commerce Regulations (19 CFR 353.48).

We have deleted from the Commerce Regulations, Annex 1 to 19 CFR Part 353, which listed antidumping findings and orders currently in effect. Instead, interested parties may contact the Office of Information Service, Import Administration, for copies of the updated list of orders currently in effect.

**Notice of Review**

In accordance with section 751(a)(1) of the Act (19 U.S.C. 1675(a)(1)), we hereby give notice that we are commencing an administrative review of this order on June 12, 1984. For further information regarding this review, contact Edward Haley at (202) 377-3601.

This notice is published in accordance with section 736 of the Act (19 U.S.C. 1673e) and § 353.48 of the Department of Commerce Regulations (19 CFR 353.48).

Dated: June 6, 1984.

Alan F. Holmer,  
Deputy Assistant Secretary for Import Administration.

[FR Doc. 84-11775 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-03-W

[C-201-401]

**Bars and Shapes From Mexico; Preliminary Affirmative Countervailing Duty Determinations**

**AGENCY:** International Trade Administration, Import Administration, Commerce.

**ACTION:** Notice of preliminary affirmative countervailing duty determinations.

**SUMMARY:** We preliminarily determine that certain benefits which constitute bounties or grants within the meaning of the countervailing duty law are being provided to manufacturers, producers, or exporters in Mexico of certain deformed concrete reinforcing bars, hot-rolled carbon steel bars, and hot-rolled carbon steel bar-size shapes (bars and shapes), as described in the "Scope of Investigation" section below. The estimated net bounty or grant is 1.73 percent *ad valorem* for the 4 companies that provided information and 104.53 percent *ad valorem* for all other manufacturers, producers, or exporters. Therefore, we are directing the U.S. Customs Service to suspend liquidation of all entries of bars and shapes from Mexico which are entered, or withdrawn from warehouse, for consumption, and to require a cash deposit or bond on these products in the amount equal to the estimated net bounty or grant.

If these investigations proceed normally, we will make our final determinations by August 20, 1984.

**EFFECTIVE DATE:** June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:** Mary A. Martin, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, D.C. 20230, telephone: (202) 377-1778.

**SUPPLEMENTARY INFORMATION:**

**Preliminary Determinations**

Based upon our investigations, we preliminarily determine there is reason to believe or suspect that certain benefits which constitute bounties or grants within the meaning of section 303 of the Tariff Act of 1930, as amended (the Act), are being provided to manufacturers, producers, or exporters

in Mexico of bars and shapes. For purposes of these investigations, the following programs are preliminarily found to confer bounties or grants:

- Fund for the Promotion of Exports of Mexican Manufactured Products (FOMEX).
- Preferential Federal Tax Incentives (CEPROFI).
- Fund for Industrial Development (FONEI).

For these preliminary determinations, we have used the best information otherwise available for all firms that did not provide information in response to our questionnaires. We used the questionnaire responses of those firms which did respond in making preliminary determinations with respect to those firms.

The estimated bounty or grant is 1.73 percent *ad valorem* for the 4 companies that provided information and 104.58 percent *ad valorem* for all other manufacturers, producers, or exporters.

#### Case History

On March 13, 1984, we received a petition from the Labor-Management Committee for Fair Foreign Competition, Inc., on behalf of U.S. producers of bars and shapes who represent a major portion of that industry. In compliance with the filing requirements of § 355.26 of our regulations (19 CFR 355.26), the petition alleges that manufacturers, producers, or exporters in Mexico of bars and shapes receive, directly or indirectly, bounties or grants within the meaning of section 303 of the Tariff Act of 1930, as amended (the Act) and that these imports are materially injuring, or threatening to materially injure, a U.S. industry. Critical circumstances were also alleged under section 703(e) of the Act.

We found the petition to contain sufficient grounds upon which to initiate countervailing duty investigations, and on March 28, 1984, we initiated such investigations (49 FR 13178). We stated that we expected to issue preliminary determinations by June 6, 1984.

Mexico is not a "country under the Agreement" within the meaning of section 701(b) of the Act, and the merchandise being investigated is dutiable. Therefore, section 303 (a)(1) and (b) of the Act applies to these investigations, and the critical circumstances provision is not applicable. Also, the domestic industry is not required to allege that, and the U.S. International Trade Commission is not required to determine whether, imports of these products cause or threaten material injury to a U.S. industry.

We presented a questionnaire concerning the allegations to the government of Mexico in Washington, D.C., on March 28, 1984, and requested a response by April 27, 1984. In a letter dated April 25, 1984, the Mexican government requested an extension of two weeks to submit its response. We granted an extension of one week, but the Mexican government did not provide a response until May 11, 1984, one week after the extended due date. The response provided information about benefits received by three small, privately held steel producers: Aceros de Chihuahua, S.A. de C.V. (AC); Compania Siderurgica de Guadalupe, S.A. (CSG); and Fundidora y Laminadora Anahuac, S.A. (FLA). The response stated that three firms, Altos Hornos de Mexico, S.A.; Hylsa, S.A.; and Siderurgica Lazaro Cardenas will voluntarily stop their exports of the products under investigation. No other information concerning these three companies was supplied.

On May 14, 1984, the Mexican government provided us with a revised version of its May 11 response that included information on benefits provided to a fourth privately owned company, Aceros San Luis, S.A. (ASL).

We served a supplemental questionnaire on the Mexican government on April 27, 1984. We requested a response by May 11, 1984. No response to this supplemental questionnaire has been received.

In a letter dated May 14, 1984, we advised the Mexican government that, because the responses have not been provided in a timely manner, it may be necessary for us to use the best information available for the preliminary determinations due June 6, 1984.

The Mexican government advised us in a letter dated May 24, 1984, that, although the largest producers/exporters of steel bars and shapes from Mexico have indicated that they intend to unilaterally limit their exports of this merchandise to the United States, a limited number of smaller firms wish to retain the opportunity to export the merchandise to the United States, within the quantitative ceiling that the government of Mexico has imposed by its policy of unilateral limitation. Accordingly, the Mexican government requested that we utilize the information submitted in the response with respect to the small firms.

#### Scope of Investigations

The product covered by these investigations are certain deformed concrete reinforcing bars, hot-rolled carbon steel bars, and hot-rolled carbon

steel bar-size shapes. For a further description of these products, see Appendix A of this notice.

There are seven known producers and exporters in Mexico of bars and shapes which export to the United States. We have received information from the government of Mexico regarding CSG, AC, FLA, and ASL (the responding companies).

The period for which we are measuring benefits is calendar year 1983. In their responses, the government of Mexico and the responding companies provided data for the applicable period. We are using the best information otherwise available for all manufacturers, producers, or exporters of bars and shapes from Mexico other than the responding companies.

#### Analysis of Programs

Based upon our analysis to date of the petition and the responses to our questionnaires, we preliminarily determine the following:

##### *I. Programs Preliminarily Determined To Confer Bounties or Grants*

We preliminarily determine that bounties or grants are being provided to the responding companies that manufacture, produce, or export bars and shapes in Mexico under the following programs:

##### **A. FOMEX**

FOMEX is a trust established by the government of Mexico to promote the manufacture and sale of exported products. The fund is administered by the Mexican Treasury Department with the Bank of Mexico acting as the trustee. The Bank of Mexico administers the financing of FOMEX loans through financial institutions that establish contracts for lines of credit with manufacturers and exporters. On July 27, 1983, FOMEX was formally incorporated into the National Bank of Foreign Trade.

Exporters may obtain either FOMEX pre-export loans denominated in pesos with a maximum annual interest rate of 8 percent, or FOMEX export loans denominated in dollars with a maximum annual interest rate of 6 percent. CSA and FLA received FOMEX loans during the period under investigation.

Since FOMEX pre-export and export financing programs provide loans for export-related purposes at interest rates significantly less than those prevailing for comparable commercially available loans, we preliminarily determine that this program confers a bounty or grant upon the exportation of bars and shapes.

To quantify the benefit we used, as a benchmark for the commercial interest rate in Mexico, the national average commercial rate for comparable short-term peso or dollar-denominated loans during the appropriate period. For peso loans, we chose the nominal rate published monthly by the Banco de Mexico in the Indicadores Economicos (the "IE rate") as our benchmark. These rates are the weighted average of the rates charged by commercial banks on peso loans.

For dollar-denominated loans, we used the interest rate for commercial and industrial short-term loans as published by the U.S. Federal Reserve Bank, since we could not find a national average commercial short-term interest rate for dollar-denominated loans in Mexico. Based on this information, we determine that, during the appropriate period, comparable peso-denominated loans were available commercially at 63.09 percent, and comparable dollar-denominated loans were available at an average rate for the investigation period of 14.39 percent.

We determined the benefits from these loans based on a comparison of the cost of the FOMEX financing and the cost of comparable commercially available loans. This benefit was allocated over the responding companies' total bar and shapes exports to the United States during the review period. On this basis, we calculated a bounty or grant in the amount of 1.11 percent *ad valorem*.

#### B. CEPROFIs

DEPROFIs are tax credits used to promote National Development Plan (NDP) goals, which include increased employment, encouragement of regional decentralization, and industrial development, particularly of small and medium-sized firms. CEPROFI tax credits are granted for investments in plant and equipment and for certain payments relating to increased employment and wages. The value of the tax credits is established as a percentage of the investment made. Certain types of investments receive higher percentage tax credits than do others.

The CEPROFI tax credits are issued as tax certificates of fixed value, which may be used to pay Mexican federal taxes for up to five years. Certain CEPROFI certificates are granted for making investments in "priority" industrial activities; others are available to all industries on equal terms.

Article 25 of the decree that established the basic authority for the issuance of CEPROFIs, published in the *Diario Oficial* on March 6, 1979,

requires each recipient to pay a 4 percent supervision fee. The 4 percent supervision fee is "paid in order to qualify for, or to receive" the CEPROFIs. Therefore, it is an allowable offset from the gross bounty or grant as defined by section 771(6)(A) of the Act. CGS, AC, and ASL received CEPROFIs.

Because the response does not indicate the purpose for which the CEPROFIs were obtained, we are assuming for these preliminary determinations, based upon our knowledge of this program from previous investigations, that the CEPROFIs were granted for investment in "priority" industrial activities or available only in certain regions of the country. Because these types of CEPROFIs are limited to a specific group of industries or to companies located in specific regions, we preliminarily determine that these CEPROFIs confer a bounty or grant. To calculate the amount of the bounty or grant, we allocated the CEPROFI benefits granted to bars and shapes producers during the period of investigation over total sales of the merchandise under investigation. We thus determined a bounty or grant in the amount of 0.60 percent *ad valorem* exists.

#### C. FONEI

FONEI is a specialized financial development fund, administered by the Bank of Mexico, which grants long-term credit at below market rates for the creation, expansion, or modernization of enterprises in order to foster industrial decentralization and the efficient production of goods capable of competing in the international market. FONEI loans are available under various programs having different eligibility requirements.

In its response to our questionnaire, the government of Mexico indicated that CSG received FONEI loans for plant expansion and for pollution control. FONEI loans for pollution control are generally available to all Mexican firms, and were found not countervailable in our *Final Countervailing Duty Determination and Countervailing Duty Order; Portland Hydraulic Cement and Cement Clinker from Mexico* (48 FR 43083) (See section IIB of this notice).

FONEI loans for plant expansion are only available to companies located outside of Zone IIIA (Mexico City and environs). Because such loans are limited to particular geographic regions and are made at below market rates, we preliminarily determine that FONEI loans for plant expansion confer a bounty or grant upon respondents. Because the interest rates on the FONEI loans under review are subject to

change and have changed over the life of the loans, we treated these loans as a series of short-term loans. To evaluate the benefit of these loans, we compared the cost of the FONEI loans with the cost of commercially available loans bearing an interest rate equivalent to the IE rate. We then divided the amount of the benefit (i.e., the difference in the two loan costs) by total bars and shapes sales of the responding companies for the period. In this manner, we calculated a benefit of 0.02 percent for FONEI loans.

#### II. Programs Preliminarily Determined Not To Confer Bounties or Grants

We preliminarily determine bounties or grants are not being provided to the responding companies in Mexico that manufacture, produce, or export bars and shapes under the following programs:

##### A. National Preinvestment Fund for Studies and Projects (FONEP)

Administered by National Financier, S.A. (NAFINSA), FONEP finances such studies as economic, technical and feasibility studies, as well as basic and detailed engineering projects.

CSG received FONEP loans for feasibility studies. The Mexican government's response stated that the financing of such feasibility studies is generally available to all companies in Mexico. Therefore, we preliminarily determine that these loans do not confer a bounty or grant. Because this represents a change from prior determinations, we will carefully examine this program at the verification.

##### B. FONEI Loans for Pollution Equipment

CSG received FONEI loans for the acquisition of environmental control equipment. While some types of FONEI loans are restricted to industries located in specific regions of the country, these loans were not so limited. Any industry in Mexico is eligible to receive FONEI loans in order to comply with the anti-pollution requirements. Because these FONEI loans are not limited to exporters, to a specific enterprise or industry, or to a group of enterprises or industries, we preliminarily determine FONEI loans for acquisition of environmental control equipment do not confer a bounty or grant.

##### C. Dual Exchange Rates

Petitioner alleged that the Mexican exporters who are permitted to retain foreign currency for future imports are being subsidized to the extent of the exchange and the cost to exporters using the currency retention program.

We determine in the *Final Negative Countervailing Duty Determination; Pork Rind Pellets from Mexico* (48 FR 39105) that the dual level exchange rate system existing in Mexico does not confer a bounty or grant.

#### D. Wage Controls

The response states that no maximum wage limits exist. The government of Mexico establishes only a minimum wage, not a maximum, and this minimum wage is established for the benefit of the workers and not for the industry.

#### III. Programs Preliminarily Determined Not To Be Used.

We preliminarily determine that the following programs have not been used by the responding companies that manufacture, produce, or export bars and shapes in Mexico. Unless otherwise indicated, the basis for these preliminary determinations is the Mexican government's statement that the responding producers and exporters of certain bars and shapes did not receive benefits under these programs.

##### A. State Investment Incentives

Certain Mexican states offer selected industries exemptions from state taxes, free or low cost land, or infrastructure improvements as incentives to establish or expand industrial facilities and to export.

##### B. Guarantee and Development Fund for Medium and Small Industries (FOGAIN).

FOGAIN provides financing at interest rates below prevailing commercial rates to small and medium-sized firms in Mexico.

##### C. Trust for Industrial Parks, Cities, and Commercial Centers (FIDEIN)

This program is aimed at developing industrial parks and cities.

##### D. National Fund for Industrial Promotion (FOMIN)

FOMIN operates as a trust fund, providing funding to certain small and medium-sized companies by either buying stock or providing loans at rates below those of commercial lending institutions.

##### E. The Mexican Institute of Foreign Trade (IMCE)

IMCE was created by a law published on December 31, 1970, in the *Diario Oficial*. IMCE was organized primarily for the purpose of promoting Mexico's foreign trade and coordinating efforts to stimulate such trade. IMCE performs a number of functions including organizing and directing trade fairs

abroad, promoting the visits of foreign trade missions to Mexico, carrying out investigations to identify national products or services which might be in demand abroad, and providing exporters with technical assistance.

##### F. Article 94 Loans

This program was titled "Encaje Legal" in prior investigations. A more accurate title is Article 94 Loans.

Under section II of Article 94 of the General Law of Credit Institutions and Auxiliary Organizations (the Banking Law), the Bank of Mexico establishes channels of credit to different sectors of economic activity. There are 12 categories of credit under section II.

Most categories carry their own interest rate which is set by the Bank of Mexico. Loans granted under category 12 are targeted to exports of manufactured products. The maximum interest rate under this category is 8 percent.

##### G. Imports Duty Reductions and Exemptions

Petitioners alleged that bars and shapes exporters receive import duty reduction or exemptions on equipment used in the production of exports.

##### H. Preferential Prices for Natural Gas, Oil and Electricity

Petitioner alleged that prices for natural gas, oil and electricity are set by the Mexican government and could include a 30 percent discount for respondents. In its response, the Mexican government stated that energy pricing policies are the same for bars and shapes manufacturing as they are for all other domestic industries in Mexico.

##### I. Preferential Vessel, Freight, Terminal, and Insurance Benefits

Industries in Mexico may benefit from rebates or other discounts on transportation, storage, and insurance expenses involved in exporting products to the United States.

##### J. Equity Infusions

The petition alleged that bounties or grants were provided to the bars and shapes industry through the provision of equity and other benefits by virtue of government ownership and control. The response stated that the responding companies received no equity infusions.

##### K. Subsidized Inputs

The petition alleged that the bars and shapes industry received iron and coal at preferential terms. The response stated that the responding companies received no subsidized inputs.

##### L. Plant Security

The petition alleged that the bars and shapes industry received bounties or grants from the Mexican government through the provision of plant security. The response states that the Mexican government did not provide plant security to the responding companies.

##### M. Port Facilities

The petition alleged that the government of Mexico provided preferential incentives for port facilities used by the steel industry. The response states that no port facilities are utilized by the responding companies.

#### IV. Program Preliminarily Determined to be Suspended

We preliminarily determine that the following program has been suspended.

##### A. Certificado de Devolucion de Impuesto (CEDI)

The CEDI is a tax certificate issued by the government of Mexico in an amount equal to a percentage of the f.o.b. value of the exported merchandise or, if national insurance and transportation are used, a percentage of the c.i.f. value of the exported product. The CEDIs are nontransferable and may be applied against a wide range of federal tax liabilities (including payroll taxes, value-added taxes, and import duties) over a period of five years from date of issuance. The government of Mexico suspended eligibility for CEDI tax certificates by an Executive Order published in the *Diario Oficial* and effective on August 25, 1982.

In its response the Mexican government stated that no outstanding valid CEDI certificates are now held by exporters of bars and shapes and that these companies have not in the past used this program to offset their taxes. Therefore, we are not calculating a net bounty or grant for CEDIs received by the bars and shapes industry before the suspension of this program.

#### V. Programs for Which More Information Is Needed

We preliminarily determine that more information is needed on the following program:

##### A. NAFINSA Loans

The petition alleged that bounties or grants were provided by loans from NAFINSA. The response provided no information on NAFINSA loans. We will seek additional information for our final determinations on any benefits received under this program.

**Verification**

In accordance with section 776(a) of the Act, we will verify data used in making our final determinations.

**Suspension of Liquidation**

In accordance with section 703(d) of the Act, we are directing the U.S. Customs Service to suspend liquidation of all entries of bars and shapes from Mexico which are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the Federal Register and to require a cash deposit or bond for each such entry of this merchandise from the responding firms—AC, CSG, FLA, and ASL in the amount of 1.73 percent *ad valorem*; and from all other manufacturers, producers, or exporters in the amount of 104.58 percent *ad valorem*.

**Public Comment**

In accordance with § 355.35 of our regulations, if requested, we will hold a public hearing to afford interested parties an opportunity to comment on these preliminary determinations at 10 a.m. on July 12, 1984, at the U.S. Department of Commerce, Room 3092, 14th Street and Constitution Avenue, NW., Washington, D.C. 20230. Individuals who wish to participate in the hearing must submit a request to the Deputy Assistant Secretary for Import Administration, Room 3099B, at the above address within 10 days of this notice's publication. Requests should contain: (1) The party's name, address, and telephone number; (2) the number of participants; (3) the reason for attending; and (4) a list of the issues to be discussed. In addition, prehearing briefs must be submitted to the Deputy Assistant Secretary by July 5, 1984. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 355.34 within 30 days of this notice's publication, at the above address and in at least 10 copies.

June 6, 1984.

Alan F. Holmer,

Deputy Assistant Secretary for Import Administration.

**Appendix A—Product Description**

1. The term "certain deformed concrete reinforcing bars" covers hot-rolled steel bars, of solid cross-section, having deformations of various patterns on their surfaces; as currently provided for in items 606.7900 and 606.8100 of the *Tariff Schedules of the United States Annotated* (TSUSA).

2. The term "hot-rolled carbon steel bars" covers hot-rolled carbon steel products of solid section not conforming completely to the respective specifications given in the headnotes to Schedule G, Part 2, Subpart B of

the TSUSA for blooms, billets, slabs, sheet pads, wire rods, plates, sheets, strip, wire, rails, joint bars or tie plates which have cross-sections in the shape of circles, segments of circles, ovals, triangles, rectangles, hexagons or octagons; as currently provided for in items 609.8310, 606.8330, 606.8350, and 606.8900 of the TSUSA. This includes flat hot-rolled carbon steel products in coils or cut to length with a width of 8 inches or less and a thickness of 0.1875 inch or more.

3. The term "hot-rolled carbon steel bar-sized shapes" covers hot-rolled carbon steel angles, shapes and sections, not drilled, not punched and hot otherwise advanced, and not conforming completely to the specifications given in the headnotes to Schedule G, Part 2, Subpart B of the TSUSA for blooms, billets, slabs, sheet bars, bars, wire rods, plates, sheets, strip, wire, rails, joint bars, tie plates or any tubular products set forth in the TSUSA having a maximum cross-sectional dimension of less than 3 inches, as currently provided for in items 609.8050, 609.8070 or 609.8030. This definition includes carbon steel angles, channels, special sections and other assorted carbon steel shapes with a maximum cross sectional dimension of less than 3 inches.

[FR Doc. 84-10332 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-DS-M

**Travel and Tourism Administration****Travel and Tourism Advisory Board; Meeting**

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act, 5 U.S.C. (App. 1976) notice is hereby given that the Travel and Tourism Advisory Board of the U.S. Department of Commerce will meet on July 12, 1984, at 9:30 a.m. in Room 5859 of the Main Commerce Building, 14th and Constitution Avenue, NW., Washington, D.C. 20230.

Established March 19, 1982, the Travel and Tourism Advisory Board consists of 15 members, representing the major segments of the travel and tourism industry and state tourism interests, and includes one member of a travel labor organization, a consumer advocate, an academician and a financial expert.

Members advise the Secretary of Commerce on matters pertinent to the Department's responsibilities to accomplish the purpose of the National Tourism Policy Act (Pub. L. 97-63), and provide guidance to the Assistant Secretary for Tourism Marketing in the preparation of annual marketing plans.

Agenda items are as follows:

- I. Call to Order
- II. Welcome New Members
- III. Approval of Minutes
- IV. USTTA Marketing Plan
- V. Management Planning Calendar
- VI. Personnel Status

**VII. The Fiscal Year 1983 Annual Report****VIII. The Customs Immigration Consolidation****IX. Miscellaneous****X. Date of Next Meeting****XI. Adjournment**

A limited number of seats will be available to observers from the public and the press. The public will be permitted to file written statements with the Committee before or after the meeting. To the extent time is available, the presentation of oral statements is allowed.

Karen M. Cardran, Committee Control Officer, United States Travel and Tourism Administration, Room 1865, U.S. Department of Commerce, Washington D.C. 20230 (telephone: 202-377-0140) will respond to public requests for information about the meeting.

Donna Tuttle,

Under Secretary for Travel and Tourism, Department of Commerce.

[FR Doc. 84-10331 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-11-M

**National Oceanic and Atmospheric Administration**

[P341]

**Marine Mammal Permits; Receipt of Application; the Seattle Aquarium**

Notice is hereby given that an Applicant has applied in due form for a Permit to take fur seals as authorized by the Fur Seal Act of 1933 (16 U.S.C. 1151-1187), and the Regulations Governing the Taking of Fur Seals (50 CFR Part 215).

1. Applicant:
  - a. Name: The Seattle Aquarium (P341).
  - b. Address: Pier 59, Waterfront Park, Seattle, Washington 98101.
2. Type of Permit: Public Display.
3. Name and Number of Animals: Northern Fur Seal (*Callorhinus ursinus*).
- 5.
4. Type of Activity: Transfer ownership from the Northwest and Alaska Fisheries Center.
5. Location of Activity: Seattle, Washington.
6. Period of Activity: 1 year.

The arrangements and facilities for transporting and maintaining the marine mammals requested in the above described application have been inspected by a licensed veterinarian, who has certified that such arrangements and facilities are adequate to provide for the well-being of the marine mammals involved.

Concurrent with the publication of this notice in the Federal Register, the

Secretary of Commerce is forwarding copies of this application to the Marine Mammal Commission and the Committee of Scientific Advisors.

Written data or views, or requests for a public hearing on this application should be submitted to the Assistant Administrator for Fisheries, National Marine Fisheries Service, U.S. Department of Commerce, Washington, D.C. 20235, within 30 days of the publication of this notice. Those individuals requesting a hearing should set forth the specific reasons why a hearing on this particular application would be appropriate. The holding of such hearing is at the discretion of the Assistant Administrator for Fisheries.

All statements and opinions contained in this application are summaries of those of the Applicant and do not necessarily reflect the views of the National Marine Fisheries Service.

Documents submitted in connection with the above application are available for review in the following offices:

Assistant Administrator for Fisheries, National Marine Fisheries Service, 3300 Whitehaven Street NW., Washington, D.C.; and

Director, Northwest Region, National Marine Fisheries Service, 7600 Sand Point Way, NE., BIN C15700, Seattle, Washington 98115.

Dated: June 5, 1984.

Richard B. Roe,

*Director, Office of Protected Species and Habitat Conservation, National Marine Fisheries Service.*

[FR Doc. 84-15740 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-22-M

#### **Pacific Fishery Management Council; Public Meeting**

**AGENCY:** National Marine Fisheries Service, NOAA, Commerce.

The Pacific Fishery Management Council's Groundfish Management Team will convene a public meeting in Portland, OR, June 26-27, 1984, to discuss the status of the 1984 fishery, objectives and design of a mesh size study, and a timetable for revision of the groundfish fishery management plan. For further information, contact Joseph C. Greenley, Executive Director, Pacific Fishery Management Council, 526 SW. Mill Street, Portland, OR 97201; telephone (503) 221-6352.

Dated: June 6, 1984.

Roland Finch,

*Director, Office of Fisheries Management, National Marine Fisheries Service.*

[FR Doc. 84-15739 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-22-M

#### **COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS**

##### **Requesting Public Comment on Bilateral Textile Consultations With Korea To Review Trade in Category 436**

June 7, 1984.

On May 25, 1984, the Government of the United States requested consultations with the Government of the Republic of Korea with respect to wool dresses in Category 436. This request was made on the basis of the agreement of December 1, 1982, as amended, between the Governments of the United States and the Republic of Korea relating to trade in cotton, wool and man-made fiber textiles and textile products.

The purpose of this notice is to advise the public that if no solution is agreed upon in consultations with Korea, the Committee for the Implementation of Textile Agreements may later establish a limit for the entry and withdrawal from warehouse for consumption of textile products in Category 436, produced or manufactured in Korea and exported to the United States during the twelve-month period which began on January 1, 1984 and extends through December 31, 1984.

Anyone wishing to comment or provide data or information regarding the treatment of this category from Korea under the Bilateral Cotton, Wool and Man-Made Fiber Textile Agreement, or on any other aspect thereof, or to comment on domestic production or availability or textile products included in this category, is invited to submit such comments or information in ten copies to Mr. Walter C. Lenahan, Chairman, Committee for the Implementation of Textile Agreements, International Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230. Because the exact timing of the consultations is not yet certain, comments should be submitted promptly. Comments or information submitted in response to this notice will be available for public inspection in the Office of Textiles and Apparel, Room 3100, U.S. Department of Commerce, 14th and Constitution Avenue, NW., Washington, D.C., and may be obtained upon written request.

Further comment may be invited regarding particular comments or information received from the public which the Committee for the Implementation of Textile Agreements considers appropriate for further consideration.

The solicitation of comments regarding any aspect of the agreement or the implementation thereof is not a waiver in any respect of the exemption contained in 5 U.S.C. 553(a)(1) relating to matters which constitute "a foreign affairs function of the United States."

Walter C. Lenahan,

*Chairman, Committee for the Implementation of Textile Agreements.*

[FR Doc. 84-15634 Filed 6-11-84; 8:45 am]

BILLING CODE 3510-DR-M

##### **Soliciting Public Comment on Bilateral Textile Consultations With Peru on Category 369pt. (Shop Towels)**

June 7, 1984.

On May 31, 1984, the United States Government, under Article 3 of the Arrangement Regarding International Trade in Textiles, requested the Government of Peru to enter into consultations concerning exports to the United States of shop towels in Category 369pt. (only TSUSA 366.2740), produced or manufactured in Peru.

The purpose of this notice is to advise that, if no solution is agreed upon with the Government of Peru during the sixty-day consultation period, which began on May 31, 1984, the Committee for the Implementation of Textile Agreements may later establish a limit for the entry and withdrawal from warehouse for consumption of cotton textile products in Category 369pt., produced or manufactured in Peru and exported to the United States during the twelve-month period which began on May 31, 1984 and extends through May 30, 1985 at a level of 615,102 pounds.

A summary market statement follows this notice.

A description of the textile categories in terms of T.S.U.S.A. numbers was published in the Federal Register on December 13, 1982 (47 FR 55709), as amended on April 7, 1983 (48 FR 15175), May 3, 1983 (48 FR 19924) and December 14, 1983 (48 FR 55607), December 30, 1983 (48 FR 57584), and April 4, 1984 (49 FR 13397).

Anyone wishing to comment or provide data or information regarding the treatment of Category 369pt. (shop towels), is invited to submit such comments or information in ten copies to Mr. Walter C. Lenahan, Chairman, Committee for the Implementation of Textile Agreements, International Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230. Because the exact timing of the consultations is not yet certain, comments should be submitted promptly. Comments or information



submitted in response to this notice will be available for public inspection in the Office of Textiles and Apparel, Room 3100, U.S. Department of Commerce, 14th and Constitution Avenue, NW., Washington, D.C., and may be obtained upon written request.

Further comment may be invited regarding particular comments or information received from the public which the Committee for the Implementation of Textile Agreements considers appropriate for further consideration.

The solicitation of comments regarding any aspect of the agreement or the implementation thereof is not a waiver in any respect of the exemption contained in 5 U.S.C. 553(a)(1) relating to matters which constitute "a foreign affairs function of the United States."

Walter C. Lenahan,

*Chairman, Committee for the Implementation of Textile Agreements.*

#### Peru—Market Statement

##### Category 369pt.—Cotton Shop Towels

U.S. imports of Category 369pt.—Cotton Shop Towels—from Peru during the year ending March 1984 were 9.0 million units. Imports for the first three months of 1984 were 5.6 million units, 60.2 percent higher than the 1983 calendar year level. This is a sharp and substantial increase of imports in a sector already adversely affected by imports. Peru is the fourth largest supplier of shop towels, accounting for 12 percent of the total imports in 1984. These imports from Peru are entered at duty-paid landed values which are below the U.S. producer price for comparable towels.

These and other factors led the United States Government to conclude that imports from Peru are creating a real risk of market disruption in the United States for such towels.

Domestic consumption of shop towels has been severely depressed since 1981. Production plus imports of shop towels declined by 19 percent from 1981 to 1983. The number of production workers engaged in the production of shop towels declined 29 percent from 1981 to 1983; man-hours worked declined 34 percent. Capacity utilization in the shop towel industry decreased from 40.8 percent in 1981 to 33.6 percent in 1983. In spite of domestic production increasing slightly at 2 percent in 1983, it is still well below, 20 percent, the level of 1981.

Although imports declined during the years 1982 and 1983, due in part to the soft domestic market and the action taken by the United States on antidumping and countervailing duty cases with specific major suppliers of shop towels, imports increased substantially in 1984. Imports during the first three months of 1984 reached 47 million units, up 52 percent from the same period in 1983. Imports during the first three months of 1984 reached 47 million units, up 52 percent from the same period in 1983. Imports during January–March 1984 were higher than in any previous three-month period and on an

annual basis imports would reach an all-time high, 102 percent higher than the 1981 peak import level. The import to production ratio reached 151.6 percent during the first two months of 1984.

[FR Doc. 84-11035 Filed 6-11-84; 8:45 am]  
BILLING CODE 3510-DR-M

## COMMODITY FUTURES TRADING COMMISSION

### Public Information Collection Requirement Submitted to Office of Management and Budget for Review

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice of information collection.

SUMMARY: The Commodity Futures Trading Commission has submitted the following collection requirements to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511.

ADDRESS: Persons wishing to comment on this information collection should contact Katie Lewin, Office of Management and Budget, Room 3235, NEOB, Washington, D.C. 20503, (202) 395-7231. Copies of the submission are available from Joseph Salazar, Agency Clearance Officer, (202) 254-9735.

Title: Stocks of Grain in Licensed Warehouses

Form No.: Series CFTC Form 38

Action: Extension

Respondents: Businesses (excluding small businesses)

Estimated annual burden: 1,768

Estimated number of respondents: 50

Issued in Washington, D.C., on June 7, 1984.

Jane K. Stuckey,

*Secretary of the Commission.*

[FR Doc. 84-11037 Filed 6-11-84; 8:45 am]  
BILLING CODE 6251-01-M

## DEPARTMENT OF DEFENSE

### Office of the Secretary

#### Defense Science Board Task Force on Atmospheric Obscuration; Meeting

The Defense Science Board Task Force on Atmospheric Obscuration will meet in open session on 18–19 July 1984 at the Pentagon, Washington, D.C.

The mission of the Defense Science Board is to advise the Secretary of Defense and the Under Secretary of Defense for Research and Engineering on scientific and technical matters as they affect the perceived needs of the Department of Defense.

At the meeting on 18–19 July 1984 the Task Force will conduct a review of

recent relevant scientific work and develop a framework within which the Task Force will meet its responsibility to provide expert advice to the Under Secretary of Defense for Research and Engineering in this subject area.

Persons interested in attending should contact Captain D. M. Alderson, Task Force Executive Secretary, Telephone: (202) 697-3060. Space will be awarded on a first come first served basis.

Dated: June 7, 1984.

M. S. Healy,

*OSD Federal Register Liaison Officer,  
Department of Defense.*

[FR Doc. 84-11040 Filed 6-11-84; 8:45 am]  
BILLING CODE 3510-01-M

## Department of the Navy

### Chief of Naval Operations, Executive Panel Advisory Committee Anti-Submarine Warfare Task Force; Closed Meeting

Pursuant to the provisions of the Federal Advisory Committee Act (5 U.S.C. App. I), notice is hereby given that the Chief of Naval Operations (CNO) Executive Panel Advisory Committee Anti-Submarine Warfare Task Force will meet June 27–28, 1984, from 9 a.m. to 5 p.m. each day, at 2000 North Beauregard Street, Alexandria, Virginia. All sessions will be closed to the public.

The purpose of the meeting is to evaluate U.S. Navy anti-submarine warfare long term strategies. The entire agenda for the meeting will consist of discussions of key issues related to anti-submarine warfare and related intelligence. These matters constitute classified information that is specifically authorized by Executive order to be kept secret in the interest of national defense and is, in fact, properly classified pursuant to such Executive order. Accordingly, the Secretary of the Navy has determined in writing that the public interest requires that all sessions of the meeting be closed to the public because they will be concerned with matters listed in section 552b(c)(1) of title 5, United States Code.

For further information concerning this meeting, contact Lieutenant Thomas E. Arnold, Executive Secretary of the CNO Executive Panel Advisory Committee, 2000 North Beauregard Street, Room 392, Alexandria, Virginia 22311. Phone (703) 756-1205.



Dated: June 7, 1984.

Dennis Gonzalez,  
Lieutenant, JAGC, U.S. Naval Reserve  
Alternate Federal Register Liaison Officer.

[FR Doc. 84-15660 Filed 6-11-84; 8:45 am]

BILLING CODE 3810-AE-M

### Naval Research Advisory Committee; Partially Closed Meeting

Pursuant to the provisions of the Federal Advisory Committee Act (5 U.S.C. App. I), notice is hereby given that the Naval Research Advisory Committee Panel on Environmental Support will meet on June 28, 1984, at the Office of Naval Research, 800 No. Quincy Street, Arlington, Virginia. The first session of the meeting will commence at 8:30 a.m. and terminate at 3:00 p.m. on June 28, 1984. The second session will commence at 3:00 p.m. and terminate at 4:30 p.m. on June 28, 1984. The first session from 8:30 a.m. to 3:00 p.m. on June 28, 1984 will be open to the public. The remaining session will be closed to the public.

The purpose of the meeting is to receive various briefings relating to an assessment of the Navy's environmental support in the design, development, test, operational planning, and employment of naval systems. The open session will consist of presentations on National Oceanic and Atmospheric Administration (NOAA) Programs and Data Base; relationship between Navy and NOAA; National Science Foundation (NSF) Programs and National Aeronautics and Space Administration (NASA) Oceanographic Satellite Program. The remaining session of the meeting will consist of classified information that is specifically authorized under criteria established by Executive order to be kept secret in the interest of national defense and is in fact properly classified pursuant to such Executive order. The Secretary of the Navy therefore has determined in writing that the public interest requires that the second session of the meeting be closed to the public because it will be concerned with matters listed in section 552(c)(1) of title 5, United States Code.

For further information concerning this meeting contact: Commander M. B. Kelley, U.S. Navy, Office of Naval Research (Code 100N), 800 North Quincy Street, Arlington, VA 22217, Telephone number (202) 696-4870.

Dated: June 7, 1984.

Dennis Gonzalez,  
Lieutenant, JAGC, U.S. Naval Reserve  
Alternate Federal Register Liaison Officer.

[FR Doc. 84-15659 Filed 6-11-1984; 8:45 am]

BILLING CODE 3810-AE-M

## DEPARTMENT OF EDUCATION

### Proposed Information Collection Requests

**AGENCY:** Department of Education.

**ACTION:** Notice of proposed information collection requests.

**SUMMARY:** The Deputy Under Secretary for Management invites comments on the proposed information collection requests as required by the Paperwork Reduction Act.

**DATE:** Interested persons are invited to submit comments on or before July 12, 1984.

**ADDRESSES:** Written comments should be addressed to the Office of Information and Regulatory Affairs, Attention: Desk Officer, Department of Education, Office of Management and Budget, 725 Jackson Place, NW., Room 3208 New Executive Office Building, Washington, D.C. 20503. Requests for copies of the proposed information collection requests should be addressed to Margaret B. Webster, Department of Education, 400 Maryland Avenue, SW., Room 4074, Switzer Building, Washington, D.C. 20202.

**FOR FURTHER INFORMATION CONTACT:** Margaret B. Webster (202) 426-7304.

**SUPPLEMENTARY INFORMATION:** Section 3517 of the Paperwork Reduction Act (44 U.S.C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. The requirement for public consultation may be amended or waived by OMB to the extent that the public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform the statutory obligations. The Deputy Under Secretary for Management publishes this notice containing proposed information requests prior to the submission of these requests to the OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested; (2) Title; (3) Agency form number (if any); (4) Frequency of the collection; (5) The affected public; (6) Reporting Burden; and/or (7) Recordkeeping Burden; and (8) Abstract. Public comment is invited by the OMB at the address specified above. Copies of the requests may be obtained from Margaret Webster at the address specified above.

Dated: June 7, 1984.

Ralph J. Olmo,  
Acting Deputy Under Secretary for  
Management.

### Office of Education Research and Improvement

**Type of Review Requested:** NEW  
**Title:** Annual Performance and Financial Report—Secretary's Discretionary Program Grants—Application of Technology

**Frequency:** Annually

**Affected Public:** Individuals or Households; State or Local Governments; Businesses or Other For-Profit; Non-Profit Institutions; Small Businesses or Organizations

**Reporting Burden:** Responses: 22; Burden Hours: 176

**Abstract:** These forms are used to account for funds spent and objectives achieved under grants awarded for the improvement of education through the application of technology.

**Type of Review Requested:** REVISION  
**Title:** Degrees and Other Formal Awards Conferred Between July 1, 1983, and June 30, 1984

**Agency Form Number:** ED 2300-2.1A-1; 2.1B-1; 2.1C

**Frequency:** Annually

**Affected Public:** State or Local Governments; Businesses or Other For-Profit; Non-Profit Institutions  
**Reporting Burden:** Responses: 3,325; Burden Hours: 5,038

**Abstract:** These data are used by the Department of Education, states, and institutions for financial and academic planning. They are also used by the Department of Labor in formulating occupational outlook projections and the National Occupational Information Coordinating Committee in assessing manpower needs.

**Type of Review Requested:** REVISION  
**Title:** Application and Project Plan, Titles I and III, Library Services and Construction Act (Pub. L. 84-597), as amended

**Agency Form Number:** ED 921

**Frequency:** Annually

**Affected Public:** State or Local Governments

**Reporting Burden:** Responses: 54; Burden Hours: 1,620

**Abstract:** The application is a requirement of the Basic State Plan (State-Federal Agreement), which mandates an annual update of program revisions and submissions of projects for Titles I and III.

**Office of Planning, Budget, and  
Evaluation**

**Type of Review Requested:** NEW

**Title:** National Study of Local Operations Under Chapter 2 of the Education Consolidation and Improvement Act

**Frequency:** Non-Recurring  
**Affected Public:** Individuals or Households; State or Local Governments; Non-Profit Institutions

**Reporting Burden:** Responses: 5,392; Burden Hours: 3069.4

**Abstract:** The Department of Education needs comprehensive information on a nation-wide basis about the operation and effects of the Education Consolidation and Improvement Act, Chapter 2, for management and policymaking, as well as responding to Congressional requests. Primary respondents will be a random sample of 1,600 school districts.

**Office of Postsecondary Education**

**Type of Review Requested:** REVISION

**Title:** Institutional Payment Summary (IPS) and IPS Batch Report for Pell Grants

**Agency Form Number:** ED 255 (3C)

**Frequency:** Quarterly; On Occasion

**Affected Public:** Businesses or Other For-Profit; Non-Profit Institutions; Small Businesses or Organizations

**Reporting Burden:** Responses: 62,400; Burden Hours: 62,400

**Recordkeeping Burden:** Recordkeepers: 5,200; Burden Hours: 6,088

**Abstract:** The Institutional Payment Summary (IPS) along with the Student Aid Report (SAR) Part 3 and IPS Batch Report are replacing the functions of the Progress Report, ED 255-3 and the Student Validation Roster, ED 255-4. The IPS is the vehicle through which the Higher Education community reports cumulative payment data for the students eligible to receive a Pell Grant at their institution. Adjustments to an institution's Pell Grant funding level will be made based on the information contained on this form and the Student Aid Report, ED 255-1 that accompany the IPS. The IPS Batch Report is a report from ED to the institution that recaps the processing of the latest submission of Payment Documents with an IPS.

**Title:** Application for Federal Student Aid

**Agency Form Number:** ED 225

**Frequency:** Annually

**Affected Public:** Individuals or Households

**Reporting Burden:** Responses: 5,300,000; Burden Hours: 5,830,000

**Recordkeeping Burden:** Recordkeepers: 10,000; Burden Hours: 10,000

**Abstract:** This form is needed to collect the data necessary to determine student eligibility for Federal student aid funds and to calculate a uniform

methodology number which financial aid administrators may use to award other types of financial aid.

**Title:** Pilot of Electronic Transfer of Fiscal Operations Report and Application to Participate in the National Direct Student Loan, Supplemental Educational Opportunity Grants and College Work Study Programs

**Agency Form Number:** ED 646-1

**Frequency:** Annually

**Affected Public:** Businesses or Other For-Profit; Non-Profit Institutions

**Reporting Burden:** Responses: 200; Burden Hours: 7,518

**Recordkeeping Burden:** Recordkeepers: 200; Burden Hours: 16

**Abstract:** Federal regulations require institutions to apply and subsequently report the expenditures for the Campus-Based Programs annually. The data obtained under this pilot study (Gateway) are intended to examine the use of electronic transfer of the data, which will facilitate the processing.

**Type of Review Requested:** EXISTING

**Title:** Financial and Performance Reports Under the Graduate and Professional Study Fellowships Program

**Agency Form Number:** ED 531A; 531B

**Frequency:** Annually

**Affected Public:** States or Local Governments and Non-Profit Institutions

**Reporting Burden:** Responses: 30; Burden Hours: 3,840

**Abstract:** The reports are utilized to obtain information from grant recipients to assure that Federal funds were expended within the provision of all applicable laws and regulations and to assess the accomplishment of project goals and objectives.

[FR Doc. 84-18553 Filed 6-11-84, 6:45 am]

BILLING CODE 4000-01-M

## DEPARTMENT OF ENERGY

### Office of Hearings and Appeals

**Issuance of Decisions and Orders; Week of April 16 Through April 20, 1984**

During the week of April 16 through April 20, 1984, the decisions and orders summarized below were issued with respect to appeals and applications for exception or other relief filed with the Office of Hearings and Appeals of the Department of Energy. The following summary also contains a list of submissions that were dismissed by the Office of Hearings and Appeals.

### Appeal

**CHEVRON U.S.A., INC., 4/19/84, HEA-0607; HEG-0030**

Chevron U.S.A., Inc. requested the Economic Regulatory Administration (ERA) to return certain crude oil import license fees pursuant to 10 CFR 213.35(d). ERA denied Chevron's request on the procedural ground that any basis for the request had been extinguished by the terms of a Consent Order subsequently entered into by Chevron and DOE. On Appeal, the Office of Hearings and Appeals (OHA) examined the Consent Order and found that its primary purpose was to resolve all pending and potential DOE enforcement claims against Chevron. Because the Consent Order was overwhelmingly enforcement-oriented, OHA determined that it would be unfair to hold that the Consent Order had extinguished all of Chevron's non-enforcement related rights. OHA remanded to ERA the decision on Chevron's request for a determination on its merits.

### Request for Exception

**A. O. SMITH CORPORATION, 4/19/84, HXE-0072**

A. O. Smith Corporation filed an application seeking an extension of a prior exception from the testing requirements of 10 CFR Part 430, Subpart B, Appendix N, for the finned copper tube (FCT) boilers which it manufactures. In considering the request, the DOE found that if A. O. Smith were to comply with the testing requirements of 10 CFR Part 430, the actual energy efficiency of the FCT boilers would be understated, and this would prevent consumers from effectively comparing competing products. The DOE determined that this situation resulted in a gross inequity to A. O. Smith, and concluded that the firm should be granted an extension of exception relief.

### Motion for Discovery

**Economic Regulatory Administration  
Marathon Oil Company, 4/16/84, HRD-0203, HRD-0205**

Marathon Oil Company and the Economic Regulatory Administration (ERA) filed Motions for Discovery in connection with the firm's Statement of Objections to a Proposed Remedial Order (PRO). In the PRO, the ERA alleged that Marathon had improperly claimed marine transportation expenses for vessels which carried no crude oil for the firm, and which had been sublet to other firms. It was Marathon's position that these expenses were properly claimed under the transportation cost regulation because they represented only the difference between the cost of subletting these larger vessels and hiring new, smaller vessels. According to Marathon, this subchartering procedure permitted an overall cost savings to the firm. Marathon requested administrative record and contemporaneous construction discovery of this regulation. The DOE found that Marathon was entitled to inspect and copy the Notice of Proposed Rulemaking, comments and transcripts of hearings, and the preamble to the regulation. The DOE further found that the regulation was not ambiguous and therefore denied Marathon's request for contemporaneous construction documents. The DOE also

denied Marathon's request for discovery regarding legal issues, finding that responses to Marathon's interrogatories would not advance the proceeding.

The ERA requested discovery from Marathon regarding the subchartering issue. Much of the discovery involved a request for Marathon documents substantiating the firm's claim that a cost saving was achieved through subchartering. The DOE pointed out that it was the ERA's legal position in the PRO that Marathon was not permitted to include the subcharter costs under the transportation cost regulation. Marathon had advanced the contrary legal position. Therefore, in order to promote efficient consideration of this legal issue, the DOE deemed, for purposes of this proceeding, that Marathon did achieve a cost saving. Accordingly, discovery regarding this issue was denied. The DOE further found that no discovery of Marathon's corporate state of mind regarding the meaning of the regulation was warranted, since the regulation was not found to be ambiguous. Consequently, the ERA's Motion for Discovery regarding this issue was denied.

The DOE also considered the ERA's request for discovery regarding the inclusion of costs for salaries of land-based personnel. Since Marathon had either mislabeled some of the costs or raised the issue of the existence of such costs subsequent to the ERA audit of its operations the DOE found that some discovery of Marathon documents substantiating the costs was warranted. Accordingly, the ERA Motion was granted in part.

#### Implementation of Special Refund Procedures *Marion Corporation, 4/20/84, HEE-0216*

The Office of Hearings and Appeals issued a final Decision and Order setting forth procedures to be used in filing applications for refund for a portion of the settlement funds obtained as the result of a Consent Order which the DOE entered into with Marion Corporation. The funds will be available to customers which purchased No. 2 diesel fuel, liquefied petroleum gases, light straight run gasoline, JP-4 jet fuel and residual fuel oil from Marion during the Consent Order period. Applications for refund must be filed within 90 days of the publication of the decision in the Federal Register. Specific information regarding the information to be included in refund applications is discussed in the Decision and Order.

#### Supplemental Order

##### *Entex Petroleum, Inc., 4/16/84, HRX-0102*

The Office of Hearings and Appeals recently issued a Remedial Order, *Entex Petroleum, Inc.*, 12 DOE ¶ 83,003 (1984), which provided that an administrative appeal of that Decision to the Federal Energy Regulatory Administration was available to any aggrieved party to the proceeding. Since the NOPV in this case was issued prior to the effective date of the DOE Organization Act, however, such administrative review is not available. Consequently, the appeal provision of the Remedial Order was revised to allow for immediate judicial review, as provided under the Economic Stabilization Act.

#### Refund Applications

##### *Ozona Gas Processing Plant I/Enterprise Products Company, 4/17/84, RF27-T*

Enterprise Products Company filed an application for refund seeking a portion of the funds obtained by the DOE under a consent order with the Ozona Gas Processing Plant (Ozona I). In considering the refund application, the Office of Hearings and Appeals (OHA) noted that the Suburban Propane Gas Corporation purchased virtually all of the Ozona natural gas liquid (NGL) products sold by Ozona during the consent order period but has waived any claim it might have had to the Ozona funds. The OHA also determined that during certain portions of the consent order period, Enterprise had paid Suburban prices for NGLs that exceeded average market prices for those products at the level of distribution concerned. Based on this finding, OHA concluded that Enterprise was competitively injured as a result of its purchases of NGLs from Suburban. Accordingly, the Enterprise refund application was approved in part. The refund granted in this proceeding was \$99,639 plus a pro rata share of the interest accrued on the Ozona I escrow account.

##### *Standard Oil Company (Indiana)/Penn Lincoln Amoco, 4/12/84, RF21-12269*

The DOE issued a Decision and Order concerning an Application for Refund filed by a reseller of Amoco distillates. All of these firms elected to apply for a refund based upon the presumption of injury and the formulae outlined in *Office of Special Counsel*, 10 DOE ¶ 85,048 (1982). In considering these applications, the DOE concluded that the firm should receive a refund based upon the total volume of its eligible Amoco middle distillate purchases. The refund granted in this proceeding totals \$441.

##### *Standard Oil Company (Indiana)/Rudolph's Standard Service, et al., 4/16/84, RF21-7637 et al.*

The DOE issued a Decision and Order concerning four Applications for Refund filed by wholesalers of Amoco motor gasoline. Each of the firms elected to apply for a refund based upon the presumption of injury and the formulae outlined in *Office of Special Counsel*, 10 DOE ¶ 85,048 (1982). In considering these applications, the DOE concluded that the applicants should receive a refund based upon the total volume of their Amoco motor gasoline purchases. The refunds granted in this proceeding total \$11,818.

#### Dismissals.

The following submissions were dismissed:

##### *Company Name and Case No.*

Robert U. Heald Shell, HRO-0054  
Vernon's Amoco Service, RF21-12098

Copies of the full text of these decisions and orders are available in the Public Docket Room of the Office of Hearings and Appeals, Room 1E-234, Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C. 20585, Monday through Friday, between the

hours of 1:00 p.m. and 5:00 p.m., except federal holidays. They are also available in *Energy Management: Federal Energy Guidelines*, a commercially published loose leaf reporter system.

Dated: June 1, 1984.

George B. Breznay,  
Director, Office of Hearings and Appeals.

[FR Doc. 84-15629 Filed 6-12-84; 6:45 am]

BILLING CODE 6450-01-M

#### Issuance of Decisions and Orders; Week of April 23 Through April 27, 1984

During the week of April 23 through April 27, 1984, the decisions and orders summarized below were issued with respect to appeals and applications for exception or other relief filed with the Office of Hearings and Appeals of the Department of Energy. The following summary also contains a list of submissions that were dismissed by the Office of Hearings and Appeals.

#### Appeal

##### *Crown Central Petroleum Corporation, 4/27/84, HFA-0216*

Crown Central Petroleum Corporation filed an Appeal from a denial by the Office of Special Counsel of a Request for Information which the firm had submitted under the Freedom of Information Act (the FOIA). In considering the appeal, the DOE found that Crown's request should be remanded to the Office of Special Counsel for further consideration.

#### Request for Exception

##### *Southport Exploration, Inc., 4/25/84, HEE-0057*

Southport Exploration, Inc. filed an Application for Exception in which the firm sought relief from its obligation to submit Form EIA-23, the Annual Survey of Domestic Oil and Gas Reserves. In considering the request, the DOE found that the firm was not particularly adversely affected by the requirement that it file Form EIA-23. Accordingly, exception relief was denied.

#### Remedial Order

##### *Petroleum Delivery Service, Inc., 4/21/84, HRO-0040*

On June 5, 1982, Petroleum Delivery Service, Inc. (PDS) filed a Statement of Objections to a Proposed Remedial Order (PRO) issued to the firm on March 25, 1982 by the Southeast District Office of Enforcement of the Economic Regulatory Administration (ERA). In the PRO, the ERA alleged that PDS sold regular and premium gasoline, No. 2 diesel fuel, and a blend of 50% regular-50% premium gasoline at prices exceeding the maximum lawful selling price (MLSP) for each class of purchaser, overcharging its customers by \$338,004.03. In its Statement of Objections PDS argued that the ERA was barred from enforcing the PRO by the Florida statute of limitations. PDS also contended

that with regard to two of its customers, it provided primarily services rather than petroleum products, and that the prices it charged for these services are outside the regulatory authority of the ERA. Finally, PDS challenged the ERA's audit techniques, particularly its class of purchaser classifications. After considering PDS's arguments, the Office of Hearings and Appeals determined that the PRO should be issued as a final Remedial Order with certain modifications pertaining to the method of restitution.

#### Requests for Modification and/or Rescission

*Marathon Oil Company, Marathon Petroleum Company, HRR-0080; Murphy Oil Corporation, HRR-0081; Atlantic Richfield Company, 4/26/84, HRR-0082*

Marathon Oil Company and Marathon Petroleum Company (Marathon), Murphy Oil Corporation, and Atlantic Richfield Company filed a joint Motion for Reconsideration from a decision issued in *Atlantic Richfield Co.*, 10 DOE ¶ 84,026 (1983), which addressed the kinds of data to be used by the Economic Regulatory Administration (ERA) to calculate maximum and representative prices for imported crude oils, in connection with the Proposed Orders of Disallowance involving the petitioners. In their joint motion, the petitioners requested that the Office of Hearings and Appeals (OHA) modify the February 1, 1983 decision so that documents obtained by the ERA dealing with audits or settlement conferences involving other refiners of imported crude oil be released to them. In considering the joint motion, the OHA determined that Marathon, Murphy and Atlantic Richfield had filed an untimely request and had failed to demonstrate that their motion was based on significantly changed circumstances. In addition, the OHA noted that release of more information to the petitioners was not necessary since information received by the petitioners pursuant to the February 1, 1983 decision was sufficient to allow them to address the relevant issues in the Proposed Orders of Disallowance proceeding. The motion was therefore denied.

#### Office of Special Counsel, 4/27/84, BRR-0146

The Office of Special Counsel (OSC) filed an Application for Rescission of a Decision and Order issued by the Office of Hearings and Appeals (OHA) on August 15, 1980. *Texaco, Inc.*, 6 DOE ¶ 83,010 (1980). In that determination the OHA dismissed with prejudice a Proposed Remedial Order which the OSC had issued to Texaco. The Application for Rescission was denied because OSC had not shown how a subsequent court decision constituted a significantly changed circumstances, as required under 10 CFR Part 205, Subpart J. The OHA also modified its previous determination from a dismissal with prejudice to a general dismissal.

#### Interlocutory Order

*Pel-Star Energy, Inc., 4/27/84, HRZ-0193*

Pel-Star Energy, Inc. filed a Motion to Strike certain portions of the response of the Economic Regulatory Administration (ERA) to the Statement of Objections filed by Pel-

Star in opposition to a Proposed Remedial Order which was issued to the firm. The DOE denied the Motion, finding that Pel-Star would not be unduly prejudiced by the retention of the ERA submissions in the administrative record. The DOE did, however, allow Pel-Star to amend its Motion for Discovery to reflect discovery requests related to the contested ERA submissions.

#### Refund Applications

*Standard Oil Company (Indiana)/Army & Air Force Exchange Service, 4/27/84, RF21-5599*

The DOE issued a Decision and Order concerning an Application for Refund filed by the Army & Air Force Exchange Service (AAFES), which is a supplier of Amoco motor gasoline. AAFES elected to apply for a refund based upon the injury it incurred as a result of the elimination by Amoco of a customary discount previously in effect in sales of motor gasoline to 51 AAFES exchange gasoline stations. Specifically, AAFES argued that it had sustained a measurable injury of \$.035 on each gallon of motor gasoline purchased from Amoco during the period April 1, 1974 through December 31, 1979. In support of its position, AAFES submitted schedules of the prices paid for Amoco gasoline and the volumes purchased during the relevant period, and documents reflecting that Amoco had been supplying AAFES a customary discount of \$.035 on each gallon of motor gasoline until the discount was discontinued on April 1, 1974. AAFES asserted that the elimination of that customary price differential was in direct contravention of the Mandatory Petroleum Price Regulations, resulting in overcharges in the sale of motor gasoline to the 51 AAFES exchange stations. Since, under an exception previously granted to AAFES, prices at the 51 exchange stations were established on the basis of average prevailing prices in the surrounding communities, rather than by reference to the cost of Amoco gasoline, the DOE concluded that Amoco's practices likely resulted in a loss of revenue equal to \$.035 for each of the 208,481,094 gallons purchased by AAFES during the relevant period, and that AAFES fully absorbed all of the alleged overcharges. Accordingly, the refund granted in this proceeding totals \$7,280,838.29 plus interest.

*Standard Oil Company (Indiana)/Ed Morris, et al., 4/27/84, RF21-03548, ET AL.*

The DOE issued a Decision and Order concerning 44 Applications for Refund filed by retailers of Amoco motor gasoline. All of these firms elected to apply for a refund based upon the presumption of injury and the formulae outlined in *Office of Special Counsel*, 10 DOE ¶ 85,048 (1982). In considering these applications, the DOE concluded that each of the 44 applicants should receive a refund based upon the total volume of their Amoco motor gasoline purchases. The refunds granted in this proceeding total \$32,995.

#### Dismissals

The following submissions were dismissed:

*Company Name, Case No.*

Big Town Standard Truck Stop, RF21-12174  
Custom Business Systems, RF21-12135

Green Mountain Country Store, RF21-12103  
Roeland Park Amoco, RF21-12134

Copies of the full text of these decisions and orders are available in the Public Docket Room of the Office of Hearings and Appeals, Room 1E-234, Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C. 20585, Monday through Friday, between the hours of 1:00 p.m. and 5:00 p.m., except federal holidays. They are also available in *Energy Management: Federal Energy Guidelines*, a commercially published loose leaf reporter system.

Dated: June 1, 1984.

George B. Breznay,

Director, Office of Hearings and Appeals.

[FR Doc. 84-15023 Filed 6-11-84; 8:45 am]

BILLING CODE 6450-01-M

#### Issuance of Decisions and Orders; Week of April 30 Through May 4, 1984

During the week of April 30 through May 4, 1984, the decisions and orders summarized below were issued with respect to applications for relief filed with the Office of Hearings and Appeals of the Department of Energy

#### Motion for Evidentiary Hearing

*Stripper Well Exemption Litigation, 5/2/84, HFH-0026*

On September 13, 1983, the United States District Court for the District of Kansas referred to the Office of Hearings and Appeals the remedy stage of the *Stripper Well Exemption Litigation*. The court order directed the OHA to conduct fact-finding concerning the impact of crude oil overcharges found to have occurred in that litigation. On May 2, 1984, the OHA issued a Decision and Order directing that a hearing be convened to receive evidence concerning the impact of crude oil overcharges upon the refining sector of the petroleum industry.

#### Interlocutory Order

*Research Fuels, Inc., 4/30/84, HEZ-0199*

Research Fuels, Inc., requested that the Office of Hearings and Appeals resume a special redress proceeding that was the subject of *Oasis Petroleum Corp.*, 5 DOE ¶ 82,559 (1980), a case in which a court order had previously prohibited OHA from taking final action, and consolidate that case with a separate special redress proceeding instituted by Lucky Stores, Inc., on January 6, 1984. The cases involve disputes between Research Fuels and Oasis Petroleum Corporation as to which firm had the regulatory right to purchase motor gasoline from certain suppliers in 1979 and which firm was obligated to supply historical wholesale customers of Research Fuels, including Lucky Stores. The OHA determined that the two special redress proceedings raised common issues and therefore should be consolidated. OHA accordingly established a single briefing schedule for the filing of submissions in the two cases.

**Implementation of Special Refund Procedures**  
***Pan American Liquids Service Co./***  
*Desertaire Oil & Gas Co., 5/2/84, HEF-*  
*0061*

The Office of Hearings and Appeals issued a Decision and Order which establishes procedures for the distribution of funds obtained as a result of a consent order entered into by the Department of Energy with Pan American Liquids Service Company and its subsidiary, Desertaire Oil & Gas Co. (jointly referred to as Desertaire) on February 19, 1980. The Decision sets forth refund application procedures for firms which purchased propane or butane from Desertaire during the consent order period (November 1, 1973-December 13, 1973). Specific information regarding the data to be included in refund applications in this proceedings is outlined in the Decision.

**Refund Applications**

***Standard Oil Company (Indiana)/Augusta & Paulina Service Station, 5/1/84, RF21-12272***

The DOE issued a Decision and Order concerning an Application for Refund filed by a retailer of Amoco motor gasoline. The firm elected to apply for a refund based on the presumption of injury and the formulae outlined in *Office of Special Counsel*, 10 DOE ¶ 85,048 (1982). In considering the application, the DOE concluded that the applicant should receive a refund based on the total volume of its Amoco motor gasoline purchases. The refund granted in this proceeding totals \$1,582.08.

***Standard Oil Company (Indiana)/Gasper's Shell et al., 5/4/84, RF21-11918 et al.***

The DOE issued a Decision and Order concerning five Applications for Refund from branded retailers of Amoco motor gasoline. All of these firms contended that they were injured by more than the presumptive levels adopted in *Office of Special Counsel*, 10 DOE ¶ 85,048 (1982). The DOE rejected the Applicants' argument that their inability to sell gasoline at the maximum lawful selling price established that they incurred injury greater than the presumptive levels. The DOE also rejected the Applicants' request to modify the presumptions established in *Office of Special Counsel* in order to grant them a greater presumptive level of injury. Therefore, each applicant was granted a refund based upon the presumptive levels.

***Standard Oil Company (Indiana)/Hershel Allen et al., 5/4/84, RF21-12335 et al.***

In a letter filed on March 28, 1984, Bassman & Mitchell, Chartered, informed the Office of Hearings and Appeals that four retailers granted refunds in an August 16, 1983 Decision and Order, had previously received refunds. In order to rectify this overpayment, the DOE determined that the refunds granted to these four firms on August 16, 1983 should be rescinded, and the August 16 Decision revised accordingly. The effect of this Decision was to return \$5,460 in excessive refunds remitted by Bassman & Mitchell to the Amoco escrow account at the Department of the Treasury.

***Standard Oil Company (Indiana)/Zirwas' Amoco et al., 5/1/84, RF21-11917 et al.***

The DOE issued a Decision and Order concerning 26 Applications for Refund from branded retailers of Amoco motor gasoline. All of these firms contended that they were injured by more than the presumptive levels adopted in *Office of Special Counsel*, 10 DOE ¶ 85,048 (1982). The DOE rejected the Applicants' argument that their inability to sell gasoline at the maximum lawful selling price established that they incurred injury greater than the presumptive levels. The DOE also rejected the Applicants' request to modify the presumptions established in *Office of Special Counsel* in order to grant them a greater presumptive level of injury. Therefore, each applicant was granted a refund based upon the presumptive levels.

***Standard Oil Company (Indiana)/T. L. Oxford, 5/4/84, RF21-12233***

In a letter filed on November 18, 1983, Bassman & Mitchell, Chartered, the attorneys representing T. L. Oxford (Oxford), informed the Office of Hearings and Appeals that it had inadvertently submitted a duplicate claim on behalf of the firm. Oxford's original claim, based on purchases of 948,467 gallons of Amoco motor gasoline, was granted on February 25, 1983. See *Standard Oil Co. (Indiana)/9 Mile Beach Standard Service*, 10 DOE ¶ 85,068 (1983). Bassman & Mitchell later submitted an application on behalf of Oxford requesting a refund for purchases of 1,374,205 gallons of Amoco motor gasoline, which was granted on August 16, 1983. See *Standard Oil Co. (Indiana)/Alston Avenue Amoco*, 11 DOE ¶ 85,113 (1983). In order to remedy this excessive payment, Bassman & Mitchell remitted the \$523 refund granted to Oxford pursuant to the August 16 Decision. The DOE determined that this money should be returned to the Amoco escrow account at the Department of the Treasury and that the August 16 Decision should be revised accordingly.

Copies of the full text of these decisions and orders are available in the Public Docket Room of the Office of Hearings and Appeals, Room 1E-234, Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C. 20585, Monday through Friday, between the hours of 1:00 p.m. and 5:00 p.m., except federal holidays. They are also available in *Energy Management: Federal Energy Guidelines*, a commercially published loose leaf reporter system.

Dated: June 1, 1984.

George B. Breznay,  
*Director, Office of Hearings and Appeals.*

[FR Doc. 84-15630 Filed 6-11-84; 8:45 am]

BILLING CODE 6450-01-M

Under the procedural regulations that apply to exception proceedings (10 CFR Part 205, Subpart D), any person who will be aggrieved by the issuance of a proposed decision and order in final form may file a written notice of objection within ten days of service. For purposes of the procedural regulations, the date of service of notice is deemed to be the date of publication of this Notice or the date an aggrieved person receives actual notice, whichever occurs first.

The procedural regulations provide that an aggrieved party who fails to file a Notice of Objection within the time period specified in the regulations will be deemed to consent to the issuance of the proposed decision and order in final form. An aggrieved party who wishes to contest a determination made in a proposed decision and order must also file a detailed statement of objections within 30 days of the date of service of the proposed decision and order. In the statement of objections, the aggrieved party must specify each issue of fact or law that it intends to contest in any further proceeding involving the exception matter.

Copies of the full text of this proposed decision and order are available in the Public Docket Room of the Office of Hearings and Appeals, Room 1111, New Post Office Building, 12th and Pennsylvania Ave., NW., Washington, D.C. 20461, Monday through Friday, between the hours of 1:00 p.m. and 5:00 p.m., except federal holidays.

Dated: May 31, 1984.

George B. Breznay,  
*Director of Hearings and Appeals.*

***Shy Oil Company, Cleveland, Ohio, HEE-***  
*0085*

Shy Oil Company filed an Application for Exception in which the firm seeks to be relieved of its obligation to file Form EIA-782B, entitled "Reseller/Retailer's Petroleum Product Sale Report." On May 16, 1984, the Department of Energy issued a Proposed Decision and Order which determined that the exception request be denied.

[FR Doc. 84-15627 Filed 6-11-84; 8:45 am]

BILLING CODE 6450-01-M

**Economic Regulatory Administration**

[Docket No. ERA-FC-84-004; OFP Case Nos. 50076-9142-08, 09-22]

**Acceptance of Petition for Exemption and Availability of Certification; Municipal Light and Power, Anchorage, Alaska**

**AGENCY:** Economic Regulatory Administration Department of Energy.

**Issuance of Proposed Decision and Order; Period of May 7 Through 18, 1984**

During the period of May 7 through May 18, 1984, the proposed decision and order summarized below was issued by the Office of Hearings and Appeals of the Department of Energy with regard to an application for exception.



**ACTION:** Notice of acceptance of petition for exemptions and availability of certification; Municipal Light and Power, Anchorage, Alaska—Powerplant and Industrial Fuel Use Act of 1978.

**SUMMARY:** On February 3, 1984, Municipal Light and Power (ML&P), Anchorage, Alaska, filed a petition with the Economic Regulatory Administration (ERA) of the Department of Energy (DOE) requesting permanent reliability of service exemptions for two proposed new electric powerplants from the prohibitions of Title II of the Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. 8301 *et seq.* (FUA or "the Act"). Title II of FUA prohibits the use of petroleum and natural gas as a primary energy source in any new electric powerplant and the construction of such a powerplant without the capability to use an alternate fuel as a primary energy source. Final rules setting forth the criteria and procedures for petitioning for exemptions from the prohibitions of Title II of FUA are found in 10 CFR Parts 500, 501, and 503. The final rules governing the reliability of service exemption, 10 CFR 503.40, were published at 46 FR 59872 (Dec. 7, 1981).

The units for which ML&P seeks exemptions are two natural gas-fired combustion turbines with nameplate ratings of 80 MW each, that will operate in combined cycle with a heat recovery steam turbine unit (as a base load integrated system) to produce electrical power at the George M. Sullivan Generating Station, Anchorage, Alaska. The new units, identified as Units 8 and 9 (hereafter "Sullivan 8 and 9") are expected to commence operations to meet load forecast electrical demands commencing in 1984.

After receipt of additional information from ML&P remedying deficiencies in the originally-filed petition, ERA has now determined that the amended petition includes sufficient evidence to support a determination on the exemption request, and it is, therefore, accepted pursuant to 10 CFR 501.3. ERA retains the right, however, to request additional relevant information from ML&P at any time during the proceeding should circumstances or procedural requirements so require. A review of the petition is provided in the **SUPPLEMENTARY INFORMATION** section below.

As provided for in sections 701 (c) and (d) of FUA and 10 CFR 501.31 and 501.33, interested persons are invited to submit written comments in regard to this petition and any interested person may submit a written request that ERA convene a public hearing.

The public file containing a copy of this Notice of Acceptance and Availability of Certification, as well as other documents and supporting materials relating to the proceeding, is available upon request through DOE, Freedom of Information Reading Room, 1000 Independence Avenue SW., Room 1E-190, Washington, D.C. 20585, Monday-Friday, 8:00 a.m.-4:00 p.m.

ERA will issue a final order granting or denying the petition for exempting from the prohibitions of the Act within six months after the end of the period for public comment and hearing, unless ERA extends such period. Notice of any such extension, together with a statement of the reasons therefore, will be published in the Federal Register.

**DATES:** Written comments are due on or before July 27, 1984. A request for a public hearing must be made within this same 45-day period.

**ADDRESSES:** Fifteen copies of written comments or a request for a public hearing shall be submitted to: Case Control Unit, Office of Fuels Programs, Room GA-073, Forrestal Building, 1000 Independence Avenue SW., Washington, D.C. 20585. Docket No. ERA-FC-84-004 should be printed on the outside of the envelope and the documents contained therein.

**FOR FURTHER INFORMATION CONTACT:**

Robert A. McCann, Office of Fuels Programs, Economic Regulatory Administration, 1000 Independence Avenue SW., Room GA-073, Washington, D.C. 20585, Phone (202) 252-1649

Henry K. Garson, Office of the General Counsel, Department of Energy, 1000 Independence Avenue SW., Room 6D-033, Washington, D.C. 20585, Phone (202) 252-6947.

**SUPPLEMENTARY INFORMATION:** ML&P proposes to install two new combustion turbine powerplant units, Sullivan 8 and 9, at its George M. Sullivan Generating Station, located in Anchorage, Alaska. The new units, together with a heat recovery steam unit, will operate as a base load integrated system, producing electricity to meet forecast demands, commencing with the winter of 1984-85.

Section 212(f) of FUA and 10 CFR 503.40 provide for a permanent exemption for powerplants necessary to maintain reliability of service. In addition, section 317 of Pub. L. 97-394 (42 U.S.C. 8322) provides that:

In the case of any new electric power plant located in Alaska for which a petition is accepted after the date of enactment of this Act, but before December 31, 1985, pursuant to section 212(f) of the Powerplant and Industrial

Fuel Use Act of 1978, to use natural gas \* \* \* the petitioner shall be deemed to have made the demonstrations required by clauses (1) and (2) of such section and such exemption, subject to the other applicable provisions of such Act, shall be granted . . . Nothing in this section shall apply to any new electric power plant using natural gas produced from the Prudhoe Bay unit of Alaska.

In accordance with the requirements of 10 CFR 503.40 (a) and (c), ML&P's petition for permanent exemptions for Sullivan 8 and 9 includes evidence and supporting information demonstrating that Sullivan 8 and 9 are qualifying powerplants under section 317 of Pub. L. 97-394; that no alternate power supply exists; and that the use of mixtures in the units is not feasible. In addition, ML&P submitted an environmental impact analysis, as required by 10 CFR 503.13.

**NEPA Compliance**

After review of ML&P's environmental impact analysis and other relevant information, ERA has determined that the granting of the requested exemption would clearly not result in significant effects on the quality of the human environment, and, as such, requires neither an environmental impact statement nor an Environmental Assessment. ERA's compliance with the documentary requirements of the National Environmental Policy Act of 1969 (NEPA) have accordingly been satisfied by the preparation of a memorandum for the file in accordance with section A.3(c)(1) of DOE's NEPA guidelines.

The acceptance of the petition by ERA does not constitute a determination that ML&P is entitled to the exemptions requested for Sullivan 8 and 9. That determination will be based on the entire record of the proceeding, including any comments received during the public comment period provided for in this notice.

Issued in Washington, D.C. on June 5, 1984.

Robert L. Davies,

Director, Coal & Electricity Division, Office of Fuels Programs, Economic Regulatory Administration.

[FR Doc. 84-15751 Filed 6-11-84; 8:45 am]

BILLING CODE 6450-01-01

[6COX00265]

Paul L. Heatley, Jr., d.b.a. Paul L. Heatley Co.; Proposed Remedial Order

**AGENCY:** U.S. Department of Energy, Economic Regulatory Administration.



**ACTION:** Notice of Proposed Remedial Order to Paul L. Heatley, Jr., d.b.a. Paul L. Heatley Company.

**SUMMARY:** Pursuant to 10 CFR 205.192(c), the Economic Regulatory Administration of the Department of Energy hereby gives Notice of a Proposed Remedial Order which was issued to Paul L. Heatley, Jr., d.b.a. Paul L. Heatley Company of Tulsa, Oklahoma. This Proposed Remedial Order alleges violations in the pricing of crude oil of 10 CFR 212.131, 210.62(c), 205.202, and 212.186. The total violation alleged during December 1, 1977 through July 30, 1979 is \$4,076,443.95.

A copy of the Proposed Remedial Order, with confidential information deleted, may be obtained from: U.S. Department of Energy, Economic Regulatory Administration, Attn: John W. Sturges, Director, 440 S. Houston, Room 306, Tulsa, Oklahoma 74127.

Within 15 days of publication of this Notice any aggrieved person may file a Notice of Objection with the Office of Hearings and Appeals, U.S. Department of Energy, 1000 Independence Avenue SW., Room 6G-030, Washington, D.C. 20585, in accordance with 10 CFR 205.193.

Issued in Tulsa, Oklahoma, on the 29th day of May 1984.

John W. Sturges,  
*Director, Tulsa Office, Economic Regulatory Administration.*

[FR Doc. 84-15749 Filed 6-11-84; 8:45 am]  
BILLING CODE 6450-01-M

#### Patton Oil Co.; Proposed Remedial Order

Pursuant to 10 CFR 205.192(c), the Economic Regulatory Administration (ERA) of the Department of Energy hereby gives notice of a Proposed Remedial Order which was issued to Patton Oil Company (Patton), Greenwood Plaza North, 5660 S. Syracuse Drive, Englewood, Colorado 80010. This Proposed Remedial Order charges Patton with pricing violations in the amount of \$982,956.41 connected with the sale of crude oil at prices in excess of those permitted under 10 CFR Part 212 during the time period November 1973 through April 1980.

A copy of the Proposed Remedial Order, with confidential information deleted, may be obtained from Mary Johnson, Economic Regulatory Administration, Department of Energy, 1341 W. Mockingbird Lane, Suite 200E, Dallas, Texas 75247 or by calling (214) 767-7483. Within fifteen (15) days of publication of this notice, any aggrieved person may file a Notice of Objection

with the Office of Hearings and Appeals, Department of Energy, Forrestal Building, 1000 Independence Avenue SW., Room: 6E-055, Washington, D.C. 20585, in accordance with 10 CFR 205.193.

Issued in Dallas, Texas, on the 25th day of May 1984.

Ben Lemos,  
*Director, Dallas Field Office, Economic Regulatory Administration.*

[FR Doc. 84-15750 Filed 6-11-84; 8:45 am]  
BILLING CODE 6450-01-M

#### Federal Energy Regulatory Commission

[Docket No. TA84-2-55-001]

#### Mountain Fuel Resources, Inc.; Filing

June 6, 1984.

Take notice that Mountain Fuel Resources, Inc. (Resources) on June 1, 1984, tendered for filing and acceptance a proposed initial rate applicable to service rendered under its Rate Schedule CD-1 affected by and subject to Resources' *Purchased Gas Cost Adjustment Provision* (PGA). Resources filed Original Sheet Nos. 13 and 14, proposing an effective date for the tariff sheets of July 1, 1984.

Resources states that it is submitting Original Sheet Nos. 13 and 14 pursuant to Article 6.14 of the Stipulation and Agreement (Stipulation) [Exhibit 18 to the proceeding in Docket No. CP80-274, *et al.*], approved by the Federal Energy Regulatory Commission (Commission) in Opinion No. 211 issued May 29, 1984, and § 154.38(d)(4) of the Regulations of the Commission.

Resources states that the proceedings in Docket No. CP80-274, *et al.*, involved the transfer of certain interstate transmission and storage facilities, gas purchase agreements and sales and service obligations from Mountain Fuel Supply Company (Mountain Fuel) to Resources. Effective July 1, 1984, sales to Mountain Fuel previously made under Rate Schedule No. 1 will be made under Rate Schedule CD-1.

Resources states that the Stipulation set Resources' Base Cost of Purchased Gas as Adjusted at \$3.2898/Dth and that Original Sheet No. 13 reflects a decrease in the Base Cost of Purchased Gas as Adjusted of \$0.22217/Dth and a change in the surcharge adjustment from \$0.00000/Dth to \$(0.01726)/Dth, for a net decrease in the initial rates authorized to be charged under Rate Schedule CD-1 of \$0.23943/Dth.

Resources states that Original Sheet No. 14 reflects \$0.00 projected incremental pricing for the PGA period

July through November, 1984. Resources' current sale-for-resale customer, Mountain Fuel, has reported \$0.00 Maximum Surcharge Absorption Capability due to the implementation of incremental pricing at the State level.

Resources states that Article 6.5 of the Stipulation requires it to credit to Account No. 191 revenues associated with the shrinkage of gas from processing plants and has estimated total Btu reduction reimbursement at \$15,942,000 and has reduced gas costs under Rate Schedule CD-1 by that amount.

Resources has requested waiver of § 154.38(d)(4)(v) of the Commission's Regulations, which section requires Resources to submit certain historical gas cost data and prospective estimates of gas cost data as required by FERC Form No. 542-PGA.

Resources has requested waiver of Article 12.2 of the General Terms and Conditions of its FERC Gas Tariff, First Revised Volume No. 1 as well as waiver of any rules or regulations deemed necessary in order to allow Original Sheet Nos. 13 and 14 to be effective as proposed.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before June 12, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15620 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. TA84-2-9-000 and RP84-84-000]

#### Tennessee Gas Pipeline Co.; Rate Change Under Tariff Rate Adjustment Provisions

June 6, 1984.

Take notice that on May 31, 1984, Tennessee Gas Pipeline Company, a Division of Tenneco Inc. (Tennessee) tendered for filing the following tariff

sheets to its FERC Gas Tariff to be effective July 1, 1984:

*Original Volume No. 1*

First Revised Sheet Nos. 198 and 202  
Second Revised Sheet No. 199  
Third Revised Sheet No. 200  
Fourth Revised Sheet No. 201  
Seventh Revised Sheet Nos. 23 through 30  
Twelfth Revised Sheet No. 21  
*Sixth Revised Volume No. 2*  
Second Revised Sheet Nos. 2AA

Tennessee states that the purpose of the revised tariff sheets is to adjust Tennessee's rates pursuant to Articles XXIII and XXIX of the General Terms and Conditions of its FERC Gas Tariff, consisting of a PGA rate adjustment and Estimated Incremental Pricing Surcharges. In addition, Tennessee states that the tariff sheets reflect changes to Tennessee's PGA clause to reflect changes in Tennessee's cost of gas in the fuel component in Tennessee's rates for applicable transportation services through a Transportation Gas Rate Adjustment.

Tennessee states that copies of the filing have been mailed to all of its customers and affected state regulatory commissions. Any persons desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure. All such petitions or protests should be filed on or before June 12, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene; provided, however, that any person who has previously filed a petition to intervene in this proceeding is not required to file a further petition. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15621 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER84-465-000]

**Arizona Public Service Co.; Filing**

June 8, 1984.

The filing Company submits the following:

Take notice that on May 25, 1984, Arizona Public Service Company (Arizona) tendered for filing as an initial rate schedule an Interruptible Transmission Service Agreement between Arizona and the City of Farmington, dated May 3, 1984.

Arizona requests that the Agreement become effective 60 days from the date of filing.

Copies of this filing have been served upon the City of Farmington, the New Mexico Public Service Commission, and the Arizona Corporation Commission.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before June 22, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-10033 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER84-456-000]

**Arizona Public Service Co.; Filing**

June 8, 1984.

The filing Company submits the following:

Take notice that on May 25, 1984, Arizona Public Service Company (Arizona) tendered for filing as an initial rate schedule an Interruptible Transmission Service Agreement between Arizona and Plains Electric Generation and Transmission Cooperative, Inc. (Plains), dated May 3, 1984.

Arizona requests that the Agreement become effective 90 days from the date of filing.

Copies of this filing have been served upon the Arizona Corporation Commission and Plains.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211,

385.214). All such motions or protests should be filed on or before June 22, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-10037 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. CP84-422-000]

**Columbia Gas Transmission Corp.; Request Under Blanket Authorization June 8, 1984.**

Take notice that on May 21, 1984, Columbia Gas Transmission Corporation (Columbia), 1700 MacCorkle Avenue, Charleston, West Virginia 25314, filed in Docket No. CP84-422-000 a request pursuant to § 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) that Columbia propose to add two new delivery points for an existing wholesale customer under the authorization issued in Docket No. CP83-76-000 pursuant to section 7 of the Natural Gas Act, all as more fully set forth in the request which is on file with the Commission, and open to the public inspection.

Specifically, Columbia requests authorization to construct and operate facilities for two additional delivery points for Columbia Gas of Ohio, Inc. (COH), an existing wholesale customer of Columbia. It is stated that one delivery point would serve a school in Athens, County, Ohio, with an estimated peak day use of 200 Mcf, and the other would serve a residence in Holmes County, Ohio, with an estimated peak day use of 1.5 Mcf. Columbia asserts that the additional volumes delivered through the proposed delivery points are within Columbia's currently authorized level of sales to COH and would have no adverse impact on existing customers of Columbia or COH.

Any person or the Commission's staff may, within 45 days after issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to § 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefor, the proposed

activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for authorization pursuant to Section 7 of the Natural Gas Act.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15698 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. RP84-74-001]

**Columbia Gulf Transmission Co.;  
Proposed Changes in FERC Gas Tariff**

June 7, 1984.

Take notice that on May 29, 1984, Columbia Gulf Transmission Company (Columbia Gulf) tendered for filing with the Federal Energy Regulatory Commission (Commission) the following tariff sheet to its FERC Gas Tariff, Original Volume No. 1, Rate Schedule T-3:

Substitute Third Revised Sheet No. 118.

The revised tariff sheet is being filed due to an improper calculation of Columbia Gulf's capacity effecting the rate derivation of facilities in East Cameron Block 23, Offshore, Louisiana. The original filing stated a capacity of 62,000 MCF per day; the capacity should have been 46,500 MCF per day. Columbia Gulf at the time of the filing was not transporting gas for others through the East Cameron Block 23 facilities and therefore no volumes were projected for the filing. Consequently, Columbia Gulf's cost of service remains the same. The filing is being made to correct the improper input into the computer. Therefore, if Columbia Gulf transports any gas for other jurisdictional customers, the proper transportation rate will be charged after the rates under Docket No. RP84-74 go into effect.

A copy of this filing has been mailed to all Holders of Columbia Gulf's FERC Gas Tariff, Original Volume No. 1.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, in accordance with Rule 211 or Rule 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before June 13, 1984. Protests will be considered by the Commission in determining the

appropriate action to be taken but will not serve to make protestants parties to the proceedings. Any party wishing to become a party to the proceeding must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15699 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. CP69-23-018]

**El Paso Natural Gas Co.; Tariff Filing**

June 7, 1984.

Take notice that on May 31, 1984, El Paso Natural Gas Company ("El Paso"), pursuant to Part 154 of the Federal Energy Regulatory Commission's ("Commission") Regulations Under the Natural Gas Act, tendered for filing and acceptance Fourth Revised Sheet Nos. 303 and 319-A and Second Revised Sheet No. 319-B to special Rate Schedule FS-26 contained in El Paso's FERC Gas Tariff, Original Volume No. 2A.

El Paso states that special Rate Schedule FS-26 is comprised of an Exchange Agreement dated February 1, 1961, as amended, between El Paso and Pioneer Production Corporation ("Pioneer") providing for the delivery by Pioneer to El Paso in San Juan County, New Mexico, on an exchange basis, for equivalent volumes of natural gas delivered by El Paso to Pioneer. Such exchange arrangements were authorized at Docket No. CP69-23 by order issued August 21, 1969, as amended, by the Federal Power Commission.

El Paso further states that the tendered revised tariff sheets will (i) serve to revised the title page to the Exchange Agreement to update the listing of the amendments to said Exchange Agreement; and (ii) reflect a revision to Exhibit A attached to the Exchange Agreement with the addition of Pioneer's interest in the Reid C No. 1 (Chacra) and Shepherd & Kelsey C No. 1 (Chacra) wells. The basis for the above mentioned revisions is an Amendatory Agreement dated May 16, 1984, between the parties. Additionally, tendered Fourth Revised Sheet No. 319-A will also reflect the addition of a footnote designation to the Abrams Gas Com G&H No. 1 well, currently subject to the exchange, to identify such well as being completed in the Chacra Formation.

El Paso has requested that the Commission accept the tendered revised tariff sheets for filing and permit them to

become effective thirty (30) days following the date of filing.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with §§385.214 and 385.211 of this Chapter. All such motions or protests should be filed on or before June 14, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15700 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ID-2107-000]

**Frederic H. Bertrand; Application**

June 8, 1984.

Take notice that on May 24, 1984, Frederic H. Bertrand filed an application pursuant to section 305(b) of the Federal Power Act to hold the following positions:

Director—Central Vermont Public Service Corporation  
Director—Equity Services, Inc.  
Director—Sentinel Advisors, Inc.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, in accordance with Rules 211 or 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before June 27, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15701 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. TA84-2-4-000]

**Granite State Gas Transmission, Inc.; Proposed Change in Rates Pursuant to Purchased Gas Cost Adjustment Provisions**

June 7, 1984.

Take notice that Granite State Gas Transmission, Inc. (Granite State), 120 Royall Street, Canton, Massachusetts 02021, on June 1, 1984, tendered for filing Seventh Revised Sheet No. 7 and Fifth Revised Sheet No. 9 in its FERC Gas Tariff, First Revised Volume No. 1, containing proposed changes in rates for effectiveness on July 1, 1984.

According to Granite State, the instant rate adjustments reflect an increase in its cost of gas purchased from Tennessee Gas Pipeline Company, a Division of Tenneco Inc. (Tennessee) which Tennessee proposes to make effective July 1, 1984, and the amortization of Unrecovered Purchased Gas Costs. It is stated that Granite State's filing is made pursuant to the purchased gas cost adjustment provision in Section XIX of the General Terms and Conditions of its tariff.

Granite State further states that its rate adjustments are applicable to its wholesale sales to its two affiliated distribution company customers: Bay State Gas Company and Northern Utilities, Inc. According to Granite State, the effect of the proposed rates in its filing is an increase of approximately \$14,547,251 annually in the cost gas purchased by its customers, based on purchases and sales for the twelve months ended March 31, 1984.

According to Granite State, copies of the filing were served upon its customers and the regulatory commissions of the State of Maine, Massachusetts and New Hampshire.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, in accordance with sections 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before June 13, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the

Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15702 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER84-461-000]

**Gulf States Utilities Co.; Filing**

June 8, 1984.

The filing company submits the following:

Take notice that Gulf States Utilities Company (Gulf States), on May 24, 1984 tendered for filing a proposed amendment to its Power Interconnection Agreement with the City of Plaquemine, Louisiana (Plaquemine), dated January 8, 1974 and Schedule LTS of said Agreement. The proposed amendment would delete provisions of the Agreement requiring Gulf States and Plaquemine to submit proposed rate change applications and supporting documents to the nonfiling party thirty (30) days prior to filing with any regulatory authority.

Gulf States indicates that said Amendment No. 1 to the Power Interconnection Agreement has been agreed to by Gulf States and Plaquemine as a part of the consideration involved in the settlement of Gulf States' rate case under FERC Docket No. ER82-375-000. The City of Plaquemine has executed said Amendment No. 1 as a party thereto.

Copies of the filing were served upon the Public Utility Commission of Texas, the Louisiana Service Commission, and the Mayor of the City of Plaquemine.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before June 20, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15703 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Project No. 18]

**Idaho Power Co.; Issuance of Annual License(s)**

June 7, 1984.

On June 30, 1983, Idaho Power Company, Licensee for the Twin Falls Project No. 18, located on the Snake River in Jerome and Twin Falls Counties, Idaho, filed an application for new license under the Federal Power Act and Commission regulations thereunder.

The license for Project No. 18 was issued effective June 11, 1934, for a period ending June 10, 1984. In order to authorize the continued operation and maintenance of the project, pending Commission action on Licensee's application, it is appropriate and in the public interest to issue an annual license to the Idaho Power Company.

Take notice that an annual license is issued to the Idaho Power Company for the period June 11, 1984 to June 10, 1985, or until Federal takeover, or until issuance of a new license for the project, whichever comes first, for the continued operation and maintenance of the Twin Falls Project No. 18 subject to the terms and conditions of the original license. Take further notice that if Federal takeover or issuance of a new license does not take place on or before June 10, 1985, a new annual license will be issued each year thereafter, effective June 11 of each year, until such time as Federal takeover takes place or a new license is issued, without further notice being given by the Commission.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15704 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. EL84-15-000]

**Kentucky Utilities Co.; Motion To Institute Phase II and/or Complaint on Behalf of Kentucky Municipals To Investigate and Remedy Fuel Clause Overcharges**

June 8, 1984.

Take notice that on May 24, 1984, Kentucky Utilities Company submitted for filing its Motion to Institute Phase I and/or Complaint on Behalf of Kentucky Municipals to Investigate and Remedy Fuel Clause Overcharges, pursuant to sections 212 and 206 of the Commission's Rules of Practice and Procedure.

The Cities of Barbourville, Bardstown, Benham, Corbin, Falmouth, Madisonville, and Providence, Kentucky, the Electric & Water Plant

Board of Frankfort, Kentucky, and Berea College in Berea, Kentucky ("Kentucky Municipals") request that the Commission move to institute a second phase to this proceeding and/or submit this complaint, requesting the Commission to institute and investigation of the coal fuel procurement practices and policies of Kentucky Utilities Company ("KU" or the "Company").

The movants further requests the Commission to provide a remedy, through fuel cost adjustment clause charge reductions and refunds with interest for any and all fuel costs found to have been in excess of just and reasonable levels of costs.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before July 5, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15705 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ID 1307-000]

#### L. Douglas Meredith; Application

June 8, 1984.

Take notice that on May 29, 1984, L. Douglas Meredith filed an application pursuant to section 305(b) of the Federal Power Act to hold the following positions:

Director—Vermont Electric Power Company, Inc.  
Chairman, Chief Executive Officer and Director—Connecticut Valley Electric Company, Inc.  
Director—Vermont Electric Transmission Company, Inc.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protest

should be filed on or before June 27, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15706 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER84-464-000]

#### Louisiana Power & Light Co.; Filing

June 8, 1984.

The filing company submits the following:

Take notice that on May 24, 1984, Louisiana Power & Light Company (LP&L) tendered for filing a revised rate schedule for the City of Winnfield, Louisiana (City) which provides for a credit when service is taken at a transmission voltage of 115,000 volts or higher and the Customer owns and maintains the distribution facilities. LP&L further states that the proposed allowable credit for service delivered at a transmission voltage conforms with Louisiana Power & Light Company's FERC Rate Schedule No. 64 with Cajun Electric Power Cooperative, Inc. and FERC Rate Schedule No. 65 with the Town of Jonesville, Louisiana. These rate schedules were approved by the Commission under a Settlement Agreement in FERC Docket No. ER79-31 and ER80-284 on July 20, 1981.

LP&L requests waiver of the notice requirements so that the Agreement can become effective May 7, 1984, the date of the completion and energizing of the City's Distribution Substation.

LP&L stated that a copy of this filing was mailed to the City of Winnfield, Louisiana, and the Louisiana Public Service Commission.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before June 26, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to

intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15707 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ID-2109-000]

#### Malcolm Severance; Application

June 8, 1984.

Take notice that on May 29, 1984, Malcolm Severance filed an application pursuant to section 305(b) of the Federal Power Act to hold the following positions:

Director—Vermont Electric Power Company, Inc.  
Director—Vermont Electric Transmission Company, Inc.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rule of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protest should be filed on or before June 27, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15708 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. TA84-1-26-005]

#### Natural Gas Pipeline Company of America; Compliance Filing

June 7, 1984.

Take notice that on May 22, 1984, Natural Gas Pipeline Company of America (Natural) tendered for filing with the Federal Energy Regulatory Commission (Commission) the following tariff sheet to its FERC Gas Tariff, Third Revised Volume No. 1:

Substitute Tenth Revised Sheet No. 120.

The substitute tariff sheet revises paragraph 18.73 of Natural's PGA tariff provision so that it reflects the language pertaining to pipeline supplier rate levels as set out in the Commission

order issued May 7, 1984 in Docket No. TA84-1-26.

Natural also requests waiver of the Commission's regulations to the extent necessary to permit Thirteenth Revised Sheet No. 119 and Eleventh Revised Sheet No. 120-A which were filed on March 22, 1984 to be accepted as part of its Third Revised Volume No. 1 with an effective date of March 1, 1984.

Natural states that copies of this filing have been sent to its jurisdictional customers and interested state regulatory agencies.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before June 13, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15709 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15710 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER84-469-000]

June 8, 1984.

**Otter Tail Power Co.; Compliance Filing**

Take notice that on May 29, 1984, Otter Tail Power Company (OTP) submitted for filing its compliance report pursuant to Commission's Letter Order dated April 26, 1984.

OTP has submitted all outstanding agreements for wheeling service as well as cost support as ordered by the Commission in the above referenced letter order.

Any person desiring to be heard or to protest this filing should file comments with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, on or before June 22, 1984. Comments will be considered by the Commission in determining the appropriate action to be taken. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15711 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

Service Customers who modified their respective Contract Demands in accordance with the provisions of the Agreement. Pursuant to Article II, Section 3(C) of the Agreement, certain General Service Customers, upon execution of new service agreements, became Small General Service Customers by reason of a change in Small General Service Buyer definition as provided for in Article II, Section 3(B) of the Agreement. Appendix B attached hereto is a list of all General Service Customers who are now classified as Small General Service Customers, in accordance with the provisions of the Agreement.

Panhandle requests that these revised tariff sheets become effective April 1, 1984 as this is the effective date of the commencement of service pursuant to the new service agreements in accordance with Article II, Sections (A) and (C) of the Stipulation and Agreement dated December 14, 1983.

A copy of this filing is being sent to Panhandle's jurisdictional customers and the respective State Regulatory Commissions.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before June 14, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 84-15712 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER83-729-003]

**New England Power Co.; Refund Report**

June 8, 1984.

Take notice that on May 21, 1984, New England Power Company (NEP) submitted for filing its refund report pursuant to the Commission's acceptance of settlement offer on April 18, 1984 in the captioned docket.

NEP states that on May 4, 1984, refunds were made to the Public Service Company of New Hampshire and that copies of its filing and supporting documentation have been mailed to the parties on the service list.

Any person desiring to be heard or to protest this filing should file comments with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, on or before June 26, 1984. Comments will be considered by the Commission in determining the appropriate action to be taken. Copies of this filing are on file

[Docket No. RP82-58-008]

**Panhandle Eastern Pipe Line Co.; Change in FERC Gas Tariff**

June 7, 1984.

Take notice that on May 31, 1984, Panhandle Eastern Pipe Line Company (Panhandle) tendered for filing the following sheets to its FERC Gas Tariff Original Volume No. 1.

Twenty-Fourth Revised Sheet No. 47  
Twenty-First Revised Sheet No. 47-A  
Nineteenth Revised Sheet No. 47-B  
Ninth Revised Sheet No. 47-C

Panhandle states that these revised tariff sheets are being submitted in compliance with Commission Orders dated March 19, 1984 and May 10, 1984 which approved a Stipulation and Agreement (Agreement) dated December 14, 1983 in Docket No. RP82-58. Pursuant to Article II, Section 3(A) of the Agreement, the General Service Customers were permitted to execute new service agreements for modification of Daily Contract Demands. Appendix A attached hereto is a list of the General

[Docket No. TA84-2-6-000]

**Sea Robin Pipeline Co.; Filing of Revised Tariff Sheets**

June 7, 1984.

Take notice that on May 31, 1984, Sea Robin Pipeline Company (Sea Robin) tendered for filing Thirty-Seventh Revised Sheet No. 4, Seventeenth Revised Sheet No. 4-A and Fourth Revised Sheet No. 4-B to its FERC Gas Tariff, Original Volume No. 1. These tariff sheets and supporting information



are being filed pursuant to the Purchased Gas Cost Adjustment provision set out in Sections 1 and 3 of Sea Robin's Tariff and pursuant to the Commission's October 4, 1983 Order Modifying and Approving Stipulation and Agreement in *Offshore Construction Costs of Natural Gas Pipelines*, Docket No. RP79-28-000.

Sea Robin states that these revised tariff sheets and supporting data are being mailed to Sea Robin's jurisdictional customers and interested state commission.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before June 14, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
Secretary.

[FR Doc. 84-15713 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. TA84-2-6-001]

**Sea Robin Pipeline Co.; Filing of Revised Tariff Sheets**

June 7, 1984.

Take notice that on May 31, 1984, Sea Robin Pipeline Company (Sea Robin) tendered for filing Twentieth Revised Sheet Nos. 127-D and 135-C to its FERC Gas Tariff, Original Volume No. 2. These tariff sheets and supporting information are being filed pursuant to the Purchased Gas Cost Adjustment provision set out in Sections 4 and 5 of Sea Robin's Tariff and pursuant to the Commission's October 4, 1983 Order Modifying and Approving Stipulation and Agreement in *Offshore Construction Costs of Natural Gas Pipelines*, Docket No. RP79-28-000.

Sea Robin states that these revised tariff sheets and supporting data are being mailed to Sea Robin's jurisdictional customers and interested state commission.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825

North Capitol Street NE., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before June 14, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
Secretary.

[FR Doc. 84-15714 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. EL84-14-000]

**The Town of Highlands, North Carolina, et al. v. Nantahala Power & Light Co.; Complaint and Motion for Summary Disposition**

June 8, 1984.

Take notice that on May 16, 1984, the Town of Highlands, North Carolina ("Highlands") and Haywood Electric Membership Corporation and North Carolina Electric Membership Corporation ("Coops") submitted for filing its Complaint and Petition for Declaratory Order against Nantahala Power & Light Company pursuant to Rule 206, 212 and 217 of the Commission's Rules of Practice and Procedure.

The petitioning companies submits this complaint requesting that the Commission:

(1) Order a revision of Nantahala's PL-(COSAC) Tariff beginning March 1, 1981 to conform to the Commission's modification of Nantahala's Energy entitlements under the 1971 Apportionment Contract for wholesale ratemaking purposes; and

(2) Order refunds of amounts collected from March 1, 1981 through December 30, 1982 based on Nantahala's use of the 1971 Apportionment Contract without modification for ratemaking purposes.

The petitioning companies request that the Commission summarily order refunds to wholesale customers to reflect the 44 million kWh increase in Nantahala's energy entitlement for ratemaking purpose ordered in Opinion No. 139.

Any person desiring to be heard or to protest this filing should file comments with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426, on or before July 5, 1984. Comments will be

considered by the Commission in determining the appropriate action to be taken. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
Secretary.

[FR Doc. 84-15715 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. TA84-2-29-002]

**Transcontinental Gas Pipe Line Corp.; Proposed Changes in FERC Gas Tariff**

June 7, 1984.

Take notice that on June 5, 1984 Transcontinental Gas Pipe Line Corporation (Transco) tendered for filing Second Substitute Alternate Thirtieth Revised Sheet No. 12 and Second Substitute Alternate Thirtieth Revised Sheet No. 15 to Second Revised Volume No. 1 of Transco's FERC Gas Tariff. These Tariff Sheets are proposed to be effective May 1, 1984.

Transco states that the submitted tariff sheets are being filed in compliance with Ordering Paragraphs (B) and (C) of the Commission's Order issued May 9, 1984 in Transco's Docket No. TA84-2-29-001 (PGA 84-2a, IRP84-2a). The effect of eliminating the negative surcharge to refund Order Nos. 93 and 93-A payments and to eliminate from the deferred account any payments under Order Nos. 93 and 93-A is to provide a net increase above the April 10, 1984 rates, which were accepted by said May 9 order subject to such eliminations, of 3.6¢ per dekatherm (dt) in the commodity or delivery charge under rate schedules CD, G, OG, E, PS, S-2 and ACQ. This increase represents the difference between the Deferred Adjustment of 9.1¢ per dt as reflected in Transco's PGA rates filed April 10, 1984 and the Deferred Adjustment of 12.7¢ per dt as reflected in the instant filing.

Transco further states that the instant compliance filing does not affect Transco's previously stated position that its April 10, 1984 filing, as modified by the instant filing, is contingent upon approval by the Commission of Transco's "Settlement Agreement as to Rates" (Settlement Agreement) filed April 6, 1984 in Docket Nos. RP83-137-000, et al., to be effective as of April 1, 1984.

Transco states that copies of the filing are being mailed to each of its jurisdictional customers and interested State Commissions, as well as to all parties to Docket No. RP83-137.

Any person desiring to be heard or to protest said filing should file a petition

to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, and 385.214). All such petition or protests should be filed on or before June 14, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
Secretary.

[FR Doc. 84-15716 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ER83-342-001]

#### Vermont Yankee Nuclear Power Corp.; Refund Report

June 8, 1984.

Take notice that on May 23, 1984, Vermont Yankee Nuclear Power Corporation (Vermont) submitted for filing its refund report.

Vermont states that on May 3, 1984 it issued two checks to cover the excess collection over the approached settlement and interest thereon.

Vermont included in its filing a summary of the amounts refunded to each purchaser the individual receipt dates and the interest paid to each purchaser.

Any person desiring to be heard or to protest this filing should file comments with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, on or before June 22, 1984. Comments will be considered by the Commission in determining the appropriate action to be taken. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
Secretary.

[FR Doc. 84-15717 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. ID-1884-003]

#### Walter F. Torrance, Jr.; Application

June 8, 1984.

Take notice that on May 24, 1984, Walter F. Torrance, Jr. filed an application for a finding that authorization is not necessary or

alternatively for authorization pursuant to Section 305(b) of the Federal Power Act to hold the following positions:

Senior Vice President—The Connecticut Light and Power Company  
Senior Vice President—The Hartford Electric Light Company  
Senior Vice President—Western Massachusetts Electric Company  
Senior Vice President—Holyoke Water Power Company  
Senior Vice President—Holyoke Power and Electric Company  
Assistant Secretary—Connecticut Yankee Atomic Power Company.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such motions or protests should be filed on or before June 27, 1984. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
Secretary.

[FR Doc. 84-15718 Filed 6-11-84; 8:45 am]  
BILLING CODE 6717-01-M

#### ENVIRONMENTAL PROTECTION AGENCY

[OPTS-51519; TSH-FRL-2590-5]

#### Certain Chemicals; Premanufacture Notices

##### Correction

In FR Doc. 84-13288 beginning on page 21113 in the issue of Friday, May 18, 1984, make the following correction:

On page 2114, first column, in the entry for "PMN 84-687", first line, "Confidential" should have read "Olin Corporation".

BILLING CODE 1595-01-M

#### FEDERAL DEPOSIT INSURANCE CORPORATION

#### Information Collection Submitted to OMB for Review

AGENCY: Federal Deposit Insurance Corporation.

**ACTION:** Notice of information collection submitted to OMB for review and approval under the Paperwork Reduction Act of 1980.

**SUMMARY:** Title of Information Collection: Securities of Insured State Nonmember Banks (OMB No. 3054-0030).

**Background:** In accordance with requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35), the FDIC hereby gives notice that it has submitted to the Office of Management and Budget a form SF-83, "Request for OMB Review," for the information collection system identified above.

**ADDRESS:** Written comments regarding the submission should be addressed to Judy McIntosh, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503 and to John Keiper, Federal Deposit Insurance Corporation, Washington, D.C. 20429.

**FOR FURTHER INFORMATION CONTACT:** Requests for a copy of the submission should be sent to John Keiper, Federal Deposit Insurance Corporation, Washington, D.C. 20412, telephone (202)389-4351.

**SUPPLEMENTARY INFORMATION:** The FDIC is requesting OMB to extend the expiration date of the current reporting requirements for insured state nonmember banks and certain bank securities shareholders that are subject to the securities registration requirements of the Securities Exchange Act of 1934. The reporting requirements (OMB NO. 3054-0030, expiring August 31, 1984) are fully described in FDIC regulation 12 CFR Part 335. The periodic reporting from each bank consists of narrative comments, financial statements and other financial data that provide an ongoing, publicly available record of a bank's activities and results of operations. Other respondents provide information related to their transactions in and ownership of the bank's own securities. The information required to be reported and disclosed by respondents is deemed necessary for actual and potential investors making investment decisions concerning securities issued by respondent banks. It is estimated that these requirements impose an annual reporting burden of approximately 22.4 hours on each bank and approximately one hour on each individual shareholder.

Dated: June 6, 1984.

Federal Deposit Insurance Corporation.  
 Alan J. Kaplan,  
*Deputy Executive Secretary.*  
 [FR Doc. 84-15037 Filed 6-11-84; 8:45 am]  
 BILLING CODE 6714-01-M

## FEDERAL MARITIME COMMISSION

### Independent Ocean Freight Forwarder License Applicants

Notice is hereby given that the following applicants have filed with the Federal Maritime Commission applications for licenses as independent ocean freight forwarders pursuant to section 44(a) of the Shipping Act, 1916 (75 Stat. 522 and 46 U.S.C. 841(c)).

Persons knowing of any reason why any of the following applicants should not receive a license are requested to communicate with the Director, Bureau of Tariffs, Federal Maritime Commission, Washington, D.C. 20573.

Amex International, Inc., 2000 K. Street, N.W., Suite 351, Washington, D.C. 20006  
 Officers: Mamadi Diane, President/Director, Lucile A. Battle, Secretary/Director, Hee Chang Park, Vice President/Director, Cagura Citahi, Treasurer/Director

Rolando Cedron, 3785 N.W. 82nd Avenue, Suite 215, Miami, FL 33168

Fred Hall & Associates, Inc., 3405 Sterling, Suite 102, Irving, TX 75063  
 Officers: Fred M. Hall, President, Virginia A. Miller, Executive Vice President, Larry G. Teel, Vice President

Henry L. Rosich D.B.A. Rosich Forwarding Company, 409 Warren Blvd., Broomall, PA 19008

Raymond Express International, 239 Harbor Way, So. San Francisco, CA 94080

Officers: Raymond C. K. Wong, President, Shuu-Hwa-Ou, Director

R. A. Leslie & Company, Inc., 1835 Rollins Road, Burlingame, CA 94010  
 Officers: Robert Alan Leslie, Treasurer/Director, Donna Jean Leslie, Secretary/Director, Byron Leslie, President/Director

By the Federal Maritime Commission.

Dated: June 6, 1984.

Francis C. Hurney,  
*Secretary.*

[FR Doc. 84-15615 Filed 6-11-84; 8:45 am]

BILLING CODE 6730-01-M

### Performance Review Board

**AGENCY:** Federal Maritime Commission.  
**ACTION:** Notice.

**SUMMARY:** Notice is hereby given of the names of the members of the Performance Review Board.

**DATE:** June 6, 1984.

**FOR FURTHER INFORMATION CONTACT:**  
 William J. Herron, Jr., Director of Personnel, Federal Maritime

Commission, 1100 L Street, NW., Washington, D.C. 20573.

**SUPPLEMENTARY INFORMATION:** Sec. 4314(c) (1) through (5) of title 5, U.S.C. requires each agency to establish, in accordance with regulations prescribed by the Office of Personnel Management, one or more performance review boards. The board shall review and evaluate the initial appraisal of a senior executive's performance by the supervisor, along with any recommendations to the appointing authority relative to the performance of the senior executive.

Alan Green, Jr.,  
*Chairman.*

The members of the Performance Review Board are:

1. James J. Carey, Vice Chairman
2. Thomas F. Moakley, Commissioner
3. Robert Setrakian, Commissioner
4. John E. Cogrove, Chief Administrative Law Judge
5. William Beasley Harris, Administrative Law Judge
6. Seymour Glanzer, Administrative Law Judge
7. Charles E. Morgan, Administrative Law Judge
8. Norman D. Kline, Administrative Law Judge
9. Joseph N. Ingolia, Administrative Law Judge
10. James K. Cooper, Managing Director
11. Wm. Jarrel Smith, Jr., Director of Programs
12. Robert D. Bourgoin, General Counsel
13. Hugh N. Johnston, Jr., Counsel to the Chairman
14. John Robert Ewers, Director, Bureau of Hearing Counsel
15. Robert A. Ellsworth, Director, Office of Policy Planning and International Affairs
16. Francis C. Hurney, Secretary
17. Daniel J. Connors, Director, Bureau of Investigations
18. Joseph C. Polking, Director, Bureau of Agreements and Trade Monitoring
19. Robert G. Drew, Director, Bureau of Tariffs

[FR Doc. 84-15568 Filed 6-11-84; 8:45 am]

BILLING CODE 6730-01-M

## FEDERAL RESERVE SYSTEM

**Formations of; Acquisitions by; and Mergers of Bank Holding Companies; Elk Horn Bancshares, Inc., et al.**

The companies listed in this notice have applied for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) and § 225.14 of the Board's Regulation Y (49 FR 794) to become a bank holding company or to acquire a bank or bank

holding company. The factors that are considered in acting on the applications are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank or to the offices of the Board of Governors. 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.

Unless otherwise noted, comments regarding each of these applications must be received not later than July 3, 1984.

**A. Federal Reserve Bank of St. Louis,** (Delmer P. Weisz, Vice President) 411 Locust Street, St. Louis, Missouri 63106:

1. *Elk Horn Bancshares, Inc.*, Arkadelphia, Arkansas; to become a bank holding company by acquiring 80 percent or more of the voting shares of Elk Horn Bank & Trust Company, Arkadelphia, Arkansas.

**B. Federal Reserve Bank of Kansas City,** (Thomas M. Hoenig, Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

1. *D.N. Bancorp, Inc.*, Durango, Colorado; to become a bank holding company by acquiring Durango National Bank, Durango, Colorado.

Board of Governors of the Federal Reserve System, June 6, 1984.

James McAfee,  
*Associate Secretary of the Board.*

[FR Doc. 84-15619 Filed 6-11-84; 8:45 am]

BILLING CODE 6210-01-M

## DEPARTMENT OF THE INTERIOR

### Bureau of Indian Affairs

#### Preparation; Roll of Eastern Creek Indian Descendants

**AGENCY:** Bureau of Indian Affairs, Interior.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the Area Director of the Muskogee Area Office of the Bureau of Indian Affairs is preparing a roll of Eastern Creek Indian descendants. A Judgment Plan prepared pursuant to the Judgment Funds Distribution Act and effective January

25, 1984, directed the Secretary of the Interior to bring current the Eastern Creek Indian descendant payment roll prepared under the Act of September 21, 1968. The roll prepared will be used as the basis for the per capita distribution of an apportioned share of judgment funds awarded the Creek Nation in Indian Claims Commission Dockets 169 and 272 and U.S. Court of Claims Dockets 277 and 309-74. In accordance with the Judgment Plan, notice of the roll preparation and the deadline for filing applications is to be published in the Federal Register.

**DATE:** Application forms for additions to the roll of Eastern Creek Indian descendants are to be filed with the Area Director, Muskogee Area Office, Bureau of Indian Affairs, Federal Building, Muskogee, Oklahoma 74401, and must be received by the Area Director no later than close of business January 24, 1984.

**FOR FURTHER INFORMATION CONTACT:** Rosella C. Garbow, Branch of Tribal Operations, Muskogee Area Office, Bureau of Indian Affairs, Federal Building, Muskogee, Oklahoma 74401, telephone number: (918) 687-2314 (FTS 736-2314).

**SUPPLEMENTARY INFORMATION:** A Judgment Plan prepared pursuant to the Judgment Funds Distribution Act of October 19, 1973 (Pub. L. 93-134, 87 Stat. 466) was published in the Federal Register on Tuesday, February 28, 1984 (49 FR 7301). The Judgment Plan became effective on January 25, 1984, and authorized the use and distribution of judgment funds awarded the Creek Nation in Indian Claims Commission Dockets 169 and 272 and the U.S. Court of Claims Dockets 277 and 309-74.

For the purposes of distributing the apportioned share of the funds to the Eastern Creek Indian descendant group, the Secretary has been directed to bring current to the effective date of the Judgment Plan, January 25, 1984, the descendant payment roll prepared pursuant to the Act of September 21, 1968 (82 Stat. 855) approved on October 20, 1972, by:

(i) Adding the names of persons living on January 25, 1984, who would have been eligible for enrollment under the 1968 Act, but who were not enrolled;

(ii) Adding the names of children born on or before and living on January 25, 1984, to persons who would have been eligible for enrollment under the 1968 Act, but who were not enrolled, regardless of whether such parents are living or deceased on January 25, 1984, and children born on or before and living on January 25, 1984, to 1968 enrollees; and

(iii) Deleting the names of 1968 enrollees who were deceased as of January 25, 1984.

Application forms for persons who meet the requirements under (i) and (ii), above, must be filed with the Area Director, Muskogee Area Office, Bureau of Indian Affairs and must be received by the Area Director no later than close of business on January 24, 1985. Application forms will be furnished by the Area Director or other designated persons upon written or oral request. Persons whose names appeared on the Eastern Creek Indian descendant payment roll prepared pursuant to the Act of September 21, 1968, need not reapply. However, a verification form will be mailed to each enrollee as well as a notice of the preparation of the roll and the relevant procedures to be followed including the requirements for enrollment and the deadline for filing applications which shall be mailed to the 1968 enrollee's address as it appeared on the payment roll. Consequently, those persons who have moved or had a name change since 1972, should notify the Area Director, Muskogee Area Office. The Area Director shall also, on the basis of residence data available on the descendant payment roll prepared under the 1968 Act, publish notices of the preparation of the roll and the relevant procedures to be followed including the requirements for enrollment and the deadline for filing applications as well as the name, address, and telephone number of a person who may be contacted for further information in appropriate locales utilizing media appropriate to the circumstances.

This notice is published in exercise of authority delegated by the Secretary of the Interior to the Secretary Assistant for Indian Affairs by 209 DM 8.

Sidney L. Mills,  
*Acting Deputy Assistant Secretary—Indian Affairs (Operations).*

[FR Doc. 84-12665 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-02-M

#### **Preparation: Roll of Peoria Indian Descendants**

**AGENCY:** Bureau of Indian Affairs, Interior.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the Area Director of the Muskogee Area Office of the Bureau of Indian Affairs is preparing a roll of Peoria Indian descendants. A Judgment Plan prepared pursuant to the Judgment Funds Distribution Act and effective November

3, 1983, directed the Secretary of the Interior to bring current a Peoria descendant payment roll prepared under the Act of July 31, 1970. The roll prepared will be used as the basis for the per capita distribution of an apportioned share of the judgment funds awarded the Peoria Tribe of Oklahoma in Indian Claims Commission Docket 313, 314-A, and 314-B. In accordance with the Judgment Plan, notice of the roll preparation and the deadline for filing applications is to be published in the Federal Register.

**DATE:** Application forms for additions to the roll of Peoria descendants are to be filed with the Area Director, Muskogee Area Office, Bureau of Indian Affairs, Federal Building, Muskogee, Oklahoma 74401, and must be received by the Area Director no later than close of business November 2, 1984.

**FOR FURTHER INFORMATION CONTACT:** Rosella C. Garbow, Branch of Tribal Operations, Muskogee Area Office, Bureau of Indian Affairs, Federal Building, Muskogee, Oklahoma 74401, telephone number: (918) 637-2314 (FTS 736-2314).

**SUPPLEMENTARY INFORMATION:** A Judgment Plan prepared pursuant to the Judgment Funds Distribution Act of October 19, 1973 (Pub. L. 93-134, 87 Stat. 466) was published in the Federal Register on Wednesday, December 28, 1983 (48 FR 57174). The Judgment Plan became effective on November 3, 1983, and authorized the use and distribution of judgment funds awarded the Peoria Tribe of Oklahoma in Indian Claims Commission Dockets 313, 314-A, and 314-B.

For the purposes of distributing the apportioned share of the funds to the Peoria descendant group, the Secretary has been directed to bring current to the effective date of the Judgment Plan, November 3, 1983, the descendant payment roll prepared pursuant to the Act of July 31, 1970, 88 Stat. 688, and approved September 4, 1973, by:

(i) Adding the names of persons living on November 3, 1983, who would have been eligible for enrollment under the 1970 Act, but who were not enrolled;

(ii) Adding the names of children born on or before and living on November 3, 1983, to persons who would have been eligible under the 1970 Act, but who were not enrolled, regardless of whether such parents are living or deceased on November 3, 1983, and children born on or before and living on November 3, 1983, to 1970 enrollees; and

(iii) Deleting the names of 1970 enrollees who were deceased as of the effective date of the Judgment Plan and

the names of those persons who are enrolled as members of the Peoria Tribe of Oklahoma.

Application forms for persons who meet the requirements under (i) and (ii), above, must be filed with the Area Director, Muskogee Area Office, Bureau of Indian Affairs and must be received by the Area Director no later than close of business on November 2, 1984.

Application forms will be furnished by the Area Director or other designated persons upon written or oral request. Persons whose names appeared on the Peoria descendant payment roll prepared pursuant to the Act of July 31, 1970, need not reapply. However, a verification form will be mailed to each enrollee as well as a notice of the preparation of the roll and the relevant procedures to be followed including the requirements for enrollment and the deadline for filing applications which shall be mailed to the 1970 enrollee's address as it appeared on the payment roll. Consequently, those persons who have moved or had a name change since 1973, should notify the Area Director, Muskogee Area Office. The Area Director shall also, on the basis of residence data available on the descendant payment roll prepared under the 1970 Act, publish notices of the preparation of the roll and the relevant procedures to be followed including the requirements for enrollment and the deadline for filing applications as well as the name, address, and telephone number of a person who may be contacted for further information in appropriate locales utilizing media appropriate to the circumstances.

This notice is published in exercise of authority delegated by the Secretary of the Interior to the Assistant Secretary for Indian Affairs by 209 DM 8.

Sidney L. Mills,  
*Acting Deputy Assistant Secretary—Indian Affairs (Operations).*

[FR Doc. 84-15685 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-02-M

### **Preparation; Roll of Potawatomi Indians of Michigan and Indiana Descendants**

**AGENCY:** Bureau of Indian Affairs, Interior.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the Superintendent of the Michigan Agency of the Bureau of Indian Affairs is preparing a roll of lineal descendants of Potawatomi Indians of Michigan and Indiana. A Judgment Plan prepared pursuant to the Judgment Funds Distribution Act and effective July 17,

1983, directed the Secretary of the Interior to bring current a Potawatomi Indians descendant payment roll prepared under a Potawatomi Judgment Plan effective March 6, 1978. The roll prepared will be used as the basis for the per capita distribution of an apportioned share of certain judgment funds awarded the Potawatomi Nation of Indians by the Indian Claims Commission and the U.S. Court of Claims. In accordance with the Judgment Plan effective July 17, 1983, notice of the roll preparation and the deadline for filing applications is to be published in the Federal Register.

**DATE:** Application forms for additions to the roll of Potawatomi Indian descendants are to be filed with the Superintendent, Michigan Agency, Bureau of Indian Affairs, Federal Square Office Plaza, P.O. Box 884, Sault Ste. Marie, Michigan 49783, and must be received by the Superintendent no later than close of business July 17, 1984.

**FOR FURTHER INFORMATION CONTACT:** Alvin G. Picotte, Superintendent, Michigan Agency, Bureau of Indian Affairs, Federal Square Office Plaza, P.O. Box 884, Sault Ste. Marie, Michigan 49783, telephone number: (906) 632-6809.

**SUPPLEMENTARY INFORMATION:** A Judgment Plan prepared pursuant to the Judgment Funds Distribution Act of October 19, 1973 (Pub. L. 93-134, 87 Stat. 466) was published in the Federal Register on Thursday, September 8, 1983 (48 FR 40567). The Judgment Plan became effective on July 17, 1983, and authorized the use and distribution of certain judgment funds awarded the Potawatomi Nation of Indians by the Indian Claims Commission and the U.S. Court of Claims.

For the purposes of distributing the apportioned share of the funds of the lineal descendants of Potawatomi Indians of Michigan and Indiana, including the Pokagon and Huron Bands and other bands, the Secretary of the Interior has been directed to bring current to the effective date of the Judgment Plan, July 17, 1983, the descendant payment roll prepared pursuant to the Potawatomi Judgment Plan of March 6, 1978, as published in the Federal Register on Friday, April 14, 1978 (43 FR 15789) by:

(i) Adding the names of persons living on July 17, 1983, who would have been eligible for enrollment under the 1978 Judgment Plan, but who were not enrolled;

(ii) Adding the names of children born on or before and living on July 17, 1983, to persons who would have been eligible for enrollment under the 1978 Judgment Plan, but who were not

enrolled, regardless of whether such parents are living or deceased on July 17, 1983;

(iii) Adding the names of children born on or before and living on July 17, 1983, to 1978 enrollees; and

(iv) Deleting the names of 1978 enrollees who were deceased as of July 17, 1983.

Entitlement to share in the judgment funds shall be limited to persons who are United States citizens, and who are not enrolled or entitled to be enrolled with the Citizen Band of Potawatomi Indians of Oklahoma, the Prairie Band of Potawatomi Indians of Kansas, the Hannahville Indian Community of Michigan, or the Forest County Potawatomi Community of Wisconsin, whose names appear on or who as lineal descendants can trace their Potawatomi ancestry to persons named on the Cadman Payment Roll of 1898, the Taggart Census Roll of 1904, or on official payment or annuity rolls of persons designated as "Potawatomi Indians of Michigan and Indiana," Huron Band, Pokagon Band, or "Notawasepi and other bands," or other records which are acceptable to the Secretary.

Application forms for persons who meet the requirements under (i), (ii) or (iii), above, must be filed with the Superintendent of the Michigan Agency, Bureau of Indian Affairs, and must be received by the Superintendent no later than close of business on July 17, 1984. Application forms will be furnished by the Superintendent or other designated persons upon written or oral request. Persons whose names appeared on the Potawatomi Indians descendant payment roll prepared pursuant to the Potawatomi Judgment Plan of March 6, 1978, need not reapply. However, a verification form will be mailed to each 1978 enrollee as well as a notice of the preparation of the roll and the relevant procedures to be followed including the requirements for enrollment and the deadline for filing applications which shall be mailed to the 1978 enrollee's address as it appeared on the descendant payment roll. Consequently, those persons who have moved or had a name change should notify the Superintendent of the Michigan Agency. The Superintendent shall also, on the basis of residence data available on the 1978 descendant payment roll, publish notices of the preparation of the roll and the relevant procedures to be followed including the requirements for enrollment and the deadline for filing applications as well as the name, address, and telephone number of a person who may be contacted for further

information in appropriate locales utilizing media appropriate to the circumstances.

This notice is published in exercise of authority delegated by the Secretary of the Interior to the Assistant Secretary for Indian Affairs by 209 DM 8.

Sidney L. Mills,

*Acting Deputy Assistant Secretary—Indian Affairs (Operations).*

[FR Doc. 84-15694 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-02-M

## Bureau of Land Management

### Availability of Draft Resource Management Plan and Environmental Impact Statement; Coast/Valley Planning Area, Bakersfield District, California

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice of availability.

**SUMMARY:** Notice is hereby given of the availability of the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for 517,000 acres of BLM-administered public land within the Coast/Valley Planning Area, encompassing Kern, Kings, San Luis Obispo, Santa Barbara, Tulare, and Ventura counties in California.

**SUPPLEMENTARY INFORMATION:** The issues addressed in the RMP are: (1) Land tenure adjustment; (2) livestock grazing; (3) minerals; (4) recreation use; (5) special land and resource use needs; and (6) water quality and watershed protection.

The Proposed Action concerns multi-use management on 517,000 acres of public land in six Management Areas.

1. *Land Tenure Adjustment*—Environmentally review approximately 18,870 acres for disposal.

2. *Livestock Grazing*—Continue present authorization levels of 20,553 AUMs for I (Improve) category allotments and 9,952 AUMs for M (Maintain) and C (Custodial) category allotments.

3. *Minerals*—504,820 acres will remain open to oil and gas exploration and leasing while 517,340 acres will remain open to mineral location and disposal (sale).

4. *Recreation Use*—Close 50 acres to ORV use. Develop walk-in access to Caliente Mountain.

5. *Special Land and Resource Use Needs*—Designate four ACECs and two Research Natural Areas. Nominate one National Natural Landmark.

6. *Water Quality and Watershed Protection*—No construction on slopes exceeding 50%.

Four alternatives are considered in addition to the Proposed Action. They are: Emphasize Protection, Combined Emphasis, Emphasize Production, and Present Management (No Action). The EIS includes a discussion of the affected environment and the environmental consequences occurring as a result of the Proposed Action and each alternative.

Copies of the DEIS are available for review at the following BLM offices, public libraries, and university/college libraries:

U.S. Bureau of Land Management, Caliente Resource Area, 520 Butte St., Bakersfield, CA 93305, (805) 861-4238

U.S. Bureau of Land Management, Bakersfield District Office, 800 Truxtun Ave., Rm 311, Bakersfield, CA 93301, (805) 861-4191

Avenal Branch Library, 501 E. Kings, Avenal, CA 93204, (209) 380-5741

Beale Memorial Library, 1315 Truxtun Ave., Bakersfield, CA 93301, (805) 861-2135

Foster E. P. Library, 651 E. Main, Ventura, CA 93301, (805) 648-2715

San Luis Obispo County Library, 628 Morro, San Luis Obispo, CA 93401, (805) 549-5531

Santa Barbara Central Branch Library, 1021 E. Anacapa, Santa Barbara, CA 93101, (805) 962-7653

Visalia County Library, 200 W. Oak St., Visalia, CA 93291, (209) 733-8440

Bakersfield College Library, 1801 Panorama Dr., Bakersfield, CA 93305, (805) 395-4462

California State-Bakersfield Library, 8001 Stockdale Hwy, Bakersfield, CA 93309, (805) 833-3172

California State-Fresno Library, 5241 N. Maple Ave., Fresno, CA 93740, (209) 294-2335

California State-Northridge Library, Northridge, CA 91324, (213) 835-2285

Cal. Polytechnic State Univ. Library, San Luis Obispo, CA 93401, (805) 546-2649

Univ. of California-Berkeley Library, Berkeley, CA 94720, (415) 642-6637

Univ. of California-Los Angeles Library, 405 Hilgard Ave., W. Los Angeles, CA 90024, (213) 825-1323

Univ. of California-Santa Barbara Library, Santa Barbara, CA 93106, (805) 861-2311 or 981-2477

Because of printing costs, copies of the complete DEIS will be sent only to directly affected agencies, organizations, and individuals. Detailed summaries will be sent to all persons who have expressed an interest in the Coast/Valley planning process. Copies of the summary are available upon request to the Caliente Resource Area Manager.

**FOR FURTHER INFORMATION CONTACT:** Glenn A. Carpenter, Resource Area Manager, 520 Butte St., Bakersfield, CA 93305.

**DATES:** Written comments concerning issues pertinent to the Coast/Valley Resource Management Plan/Environmental Impact Statement will be accepted through September 6, 1984.

Three public meetings have been scheduled:

July 11, 1984—Santa Barbara/Goleta

July 12, 1984—San Luis Obispo

July 13, 1984—Bakersfield

Exact locations and times to be announced through the media at a later date.

Dated: June 5, 1984.

Rory E. Raschen,

*Associate District Manager.*

[FR Doc. 84-15692 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-02-M

[M 55149]

### Conveyance and Order Providing for Opening of Public Lands; Montana

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice of Conveyance and Order Providing for Opening of Public Lands in Chouteau and Fergus Counties, Montana.

**SUMMARY:** This order will open the lands reconveyed in an exchange under the Act of October 21, 1976, 43 U.S.C. 1701, et seq., to the operation of the public land laws. No mineral estate was transferred or acquired in the exchange.

**DATE:** At 9 a.m. on July 23, 1984, the lands reconveyed to the United States shall be open to the operation of the public land laws, subject to valid existing rights, the provisions of existing withdrawals and the requirements of applicable law.

**FOR FURTHER INFORMATION CONTACT:** Edward H. Croteau, Chief, Lands Adjudication Section, BLM, Montana State Office, Billings, Montana 59107, Phone: (406) 657-6032.

**SUPPLEMENTARY INFORMATION:** Notice is hereby given that pursuant to Section 203 of the Act of October 21, 1976 (43 U.S.C. 1716 (1976)), the surface estate of the following described land was conveyed to Leroy M. Bergum and Lorayne E. Bergum of Winifred, Montana:

Principal Meridian, Montana

T. 21 N., R. 19 E.,

Sec. 4, lots 1, 2, 3, S½NE¼ and SE¼NW¼.

T. 22 N., R. 19 E.,

Sec. 33, E½SW¼ and SE¼.

Aggregating 483.25 acres, more or less.

In exchange for the above land, the United States acquired the following



described land in Chouteau and Fergus Counties, Montana:

Principal Meridian, Montana

T. 24 N., R. 8 E.,

Sec. 23, tract II as described by metes and bounds on that certain certificate of Survey filed April 14, 1980, at 4:30 p.m. as Document No. 390060, in the Office of the Clerk and Recorder of Chouteau County, Montana.

T. 22 N., R. 17 E.,

Sec. 11, E $\frac{1}{2}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ ; and

Sec. 13, S $\frac{1}{2}$ SE $\frac{1}{4}$ .

T. 22 N., R. 18 E.,

Sec. 5, NE $\frac{1}{4}$ SW $\frac{1}{4}$ ; and

Sec. 6, lot 6, NE $\frac{1}{4}$ SW $\frac{1}{4}$ .

Aggregating 362.77 acres, more or less.

At 9 a.m. July 23, 1984, the above-described lands that were reconveyed to the United States will be open to the operation of the public land laws.

Dated: June 4, 1984.

John A. Kwiatkowski,  
Deputy State Director, Division of Lands and Renewable Resources.

[FR Doc. 84-15676 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-DN-M

[M-58031(SD), M-58034(SD)]

### South Dakota; Conveyance

AGENCY: Bureau of Land Management, Interior.

ACTION: Conveyance of Public Land.

#### FOR FURTHER INFORMATION CONTACT:

Edward H. Croteau, Bureau of Land Management P.O. Box 36800, Billings, Montana 59107, (406) 657-6082.

SUMMARY: Notice is hereby given that pursuant to Section 203 of the Act of October 21, 1976 (43 U.S.C. 1713), James J. Stewart and Earle W. Stewart have purchased, by competitive sale, public land in Lyman County, South Dakota, described as:

Fifth Principal Meridian, South Dakota

T. 103 N., R. 75 W.,

Sec. 22, lot 4.

T. 103 N., R. 78 W.,

Sec. 29, lot 1.

Aggregating 31.30 acres.

Dated: June 4, 1984.

John A. Kwiatkowski,  
Deputy State Director, Division of Lands and Renewable Resources.

[FR Doc. 84-15675 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-DN-M

[U-40318; U-40712]

### Utah; Proposed Reinstatement of Terminated Oil and Gas Leases

In accordance with Title IV of the Federal Oil and Gas Royalty

Management Act (Pub. L. 97-451), a petition for reinstatement of oil and gas leases U-40318 and U-40712 for lands in Emery County, Utah, was timely filed and required rentals and royalties accruing from January 1, 1984, the date of termination, have been paid.

The lessees have agreed to new lease terms for increased rentals and royalties at rates of \$5 per acre or fraction thereof and 16 $\frac{2}{3}$  percent, respectively. The lessees have paid the required \$500 administrative fee and have reimbursed the Bureau of Land Management for the cost of publishing this Notice.

Having met all the requirements for reinstatement of leases U-40318 and U-40712 as set out in section 31 (d) and (e) of the Mineral Leasing Act of 1920 (30 U.S.C. 188), the Bureau of Land Management is proposing to reinstate the leases effective January 1, 1984, the date of termination, subject to the original terms and conditions of the leases and the increased rental and royalty rates cited above.

W. R. Papworth,

Deputy State Director, Operations.

[FR Doc. 84-15679 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-84-M

[U-51859]

### Utah; Proposed Reinstatement of Terminated Oil and Gas Lease

In accordance with Title IV of the Federal Oil and Gas Royalty Management Act (Pub. L. 97-451), a petition for reinstatement of oil and gas lease U-51859 for lands in Tooele County, Utah, was timely filed and required rentals and royalties accruing from December 1, 1983, the date of termination, have been paid.

The lessee has agreed to new lease terms for increased rentals and royalties at rates of \$5 per acre and 16 $\frac{2}{3}$  percent, respectively. The lessee has paid the required \$500 administrative fee and has reimbursed the Bureau of Land Management for the cost of publishing this Notice.

Having met all the requirements for reinstatement of lease U-51859 as set out in section 31 (d) and (e) of the Mineral Leasing Act of 1920 (30 U.S.C. 188), the Bureau of Land Management is proposing to reinstate the lease effective December 1, 1983, the date of termination, subject to the original terms and conditions of the lease and the

increased rental and royalty rates cited above.

W. R. Papworth,

Deputy State Director, Operations.

[FR Doc. 84-15680 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-84-M

[OR 37051]

### Oregon; Realty Action; Non-Competitive Occupancy Lease of Public Land in Lane County

The following described land (revested Oregon and California Railroad Grant land) has been examined and identified as suitable for lease under section 302 of the Federal Land Policy and Management Act of 1976 (90 Stat. 2762; 43 U.S.C. 1732), at not less than the appraised fair market rental:

T. 19 S., R. 6 W., W.M., Oregon,

Sec. 9: portion of S $\frac{1}{2}$ S $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ .

Containing 0.90 acre, more or less.

The proposed lease would authorize the continued residential occupancy of the land by Dorothy A. Hamper.

The existing mobile home was originally placed partially on public land in trespass by the current occupant's predecessor-in-interest. Because the improvements already exist, the lease would be issued non-competitively, upon application, to the current occupant for a period not to exceed ten (10) years. The lease would be nonrenewable and nontransferable.

The lease will require that upon its termination all improvements will be removed and the land restored to its natural state. The lease will thus not be inconsistent with the Bureau's long-range plans for the site.

Detailed information concerning the lease, including the environmental assessment, land report, and lease terms, is available for review at the Eugene District Office, 1255 Pearl Street, Eugene, Oregon 97401.

For a period of 45 days, from the date of publication, interested parties may submit comments to the District Manager, Bureau of Land Management, at the address cited above. Any adverse comments will be evaluated by the State Director who may vacate or modify this realty action and issue a final determination. In the absence of any action by the State Director, this realty action will become the final determination of the Department of the Interior.

Dated: June 4, 1984.

Melvin D. Clausen,  
District Manager.

[FR Doc. 84-15674 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-33-M

### Nevada; Las Vegas District Grazing Advisory Board; Meeting.

Notice is hereby given in accordance with Pub. L. 92-463 that a meeting of the Las Vegas District Grazing Advisory Board will be held Friday, July 20, 1984, at the Caliente Resource Area Headquarters, U.S. Highway 93, Caliente, Nevada at 10 a.m. The agenda will be as follows: (1) Reading and approval of the minutes for the preceding meeting; (2) Organization and election of Board officers; (3) Program review of Coordinated Resource Management and Planning; (4) Review of the District Range Improvement Projects and the Expenditure of the Rangeland Betterment Funds; (5) Range improvement maintenance policy; (6) BLM Water Policy; (7) Other Range Matters; (8) Public comments; (9) Arrangements for the next District Grazing Advisory Board Meeting.

The meeting is open to the public. Interested persons may make oral comments to the board during the public comment period on the day of the meeting or they may make comments before or during the meeting for the board's consideration. Anyone wishing to make an oral statement to the board must notify the District Manager, Bureau of Land Management, 4765 West Vegas Drive (P.O. Box 26569), Las Vegas, Nevada 89126, by June 20, 1984. Depending on the number of persons wishing to make an oral statement, the District Manager may establish a per-person time limit. Summary minutes of the board meeting will be maintained at the Las Vegas District Office. The minutes will be available for public inspection during regular office hours (7:30 a.m. to 4:15 p.m.) within 30 days after the meeting.

Kemp Conn,  
District Manager.

[FR Doc. 84-15669 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-HC-M

[NM 57052]

### Realty Action Sale of Public Lands, Catron County, New Mexico

The following described land has been examined and identified as suitable for disposal by sale under section 203 of the Federal Land Policy and Management Act of 1976 (90 Stat.

2750; 43 U.S.C. 1713) at no less than the appraised fair market value (\$4,500.). The land is isolated, difficult and uneconomical to manage, and is not suitable for management by another Federal department or agency. The sale is consistent with the Bureau's planning efforts, and the public interest will be served by offering this land for sale.

New Mexico Principal Meridian, New Mexico T. 4 S., R. 13 W., Sec. 28, NE $\frac{1}{4}$ NE $\frac{1}{4}$ .

The land described aggregates 40 acres.

The land will be offered for sale using modified competitive bidding procedures (43 CFR 2711.3-2) to allow the adjacent landowners the right to meet or exceed the highest bid received. Refusal or failure of the adjacent landowners to meet or exceed the highest bid will constitute a waiver of such bidding provisions and the land will be offered to the highest bidder.

Sealed bids for no less than the appraised fair market value will be accepted until 10:00 a.m. on August 15, 1984 at the Socorro Resource Area Office, 122 Plaza, P.O. Box 1219, Socorro, New Mexico 87801, at which time the bids will be opened. The sealed bid envelope must be marked in the lower left-hand corner as follows: "Public Sale Bid NM 57052".

### Terms and Conditions

1. The highest qualifying sealed bid received will be declared by the Authorized Officer. Competitive bids from the adjacent landowners will then be invited at no less than the amount of the declared high bid. The land will be offered to the declared high bidder among the adjacent landowners. Upon disqualification of an apparent high bidder, the next high bid will be honored.

2. The total purchase price for the land must be paid prior to the expiration of 30 days from the sale date.

3. Bidders must be 18 years of age or over and U.S. citizens, and corporations be subject to the laws of any state or of the United States. Bids must be made by the principal or his duly qualified agent.

4. The patent will be subject to all valid and existing rights and will contain the following reservations:

a. A right-of-way thereon for ditches and canals constructed under the authority of the United States (Act of August 30, 1890 26 Stat. 391; 43 U.S.C. 945).

b. All mineral deposits in the land so patented. Such minerals shall be subject to the right to explore, prospect for, mine and remove under applicable law and such regulations as the Secretary may prescribe.

c. All the geothermal steam and associated geothermal resources as to land so patented, and to it, or persons authorized by it, the right to prospect for, mine and remove such deposits upon compliance with the conditions and subject to the provisions and limitations of the Act of December 24, 1970 (84 Stat. 1566).

d. A right-of-way under Serial Number NM 03715 for a road maintained by the U.S. Forest Service.

e. The patent will also be subject to those rights granted by a term permit for grazing lease 2037 including the allowance of continued yearlong grazing of 26 head (312 AUMs) until February 28, 1991 at a cost not higher than the BLM grazing fee scheduled for a given year.

### Supplementary Information

Additional information concerning the land, terms and conditions of sale, and bidding instruction may be obtained at the Socorro Resource Area Office at the above address, or by calling Jon Hertz or Bernie Creager, Area Realty Specialists (505) 835-0412. For a period of 45 days from date of this notice, interested parties may submit comments regarding the proposed action. Comments should reference Serial Number NM 57052. Any adverse comments will be evaluated by the District Manager who may vacate or modify this realty action and issue a final determination. In the absence of any action by the District Manager, this realty action will become the final determination of the Department of the Interior.

The BLM may accept or reject any or all offers, or withdraw any land or interest in land for sale if, in the opinion of the Authorized Officer, consummation of the sale would not be fully consistent with FLPMA or another applicable law.

Rocky L. Cumutt,  
Acting Area Manager.

[FR Doc. 84-15672 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-FD-M

### Minerals Management Service

### Development Operations Coordination Document; Huffco Petroleum Corp.

AGENCY: Minerals Management Service, Interior.

ACTION: Notice of the receipt of a proposed development operations coordination document (DOCD).

SUMMARY: Notice is hereby given that Huffco Petroleum Corporation has submitted a DOCD describing the

activities it proposes to conduct on Lease OCS-G 1831, Block 206, High Island Area, offshore Texas. Proposed plans for the above area provide for the development and production of hydrocarbons with support activities to be conducted from an onshore base located at Galveston, Texas.

**DATE:** The subject DOCD was deemed submitted on June 4, 1984.

**ADDRESSES:** A copy of the subject DOCD is available for public review at the Office of the Regional Manager, Gulf of Mexico OCS Region, Minerals Management Service, 3301 North Causeway Blvd., Room 147, Metairie, Louisiana (Office Hours: 9 a.m. to 3:30 p.m., Monday through Friday).

**FOR FURTHER INFORMATION CONTACT:** Mr. Emile H. Simoneaux, Jr., Minerals Management Service, Gulf of Mexico Region; Rules and Production; Plans, Platform and Pipeline Section, Exploration/Development Plans Unit; Phone (504) 838-0872.

**SUPPLEMENTARY INFORMATION:** The purpose of this Notice is to inform the public, pursuant to sec. 25 of the OCS Lands Act Amendments of 1978, that the Minerals Management Service is considering approval of the DOCD and that it is available for public review.

Revised rules governing practices and procedures under which the Minerals Management Service makes information contained in DOCDs available to affected states, executives of affected local governments, and other interested parties became effective December 13, 1979 (44 FR 53685). Those practices and procedures are set out in revised Section 250.34 of Title 30 of the CFR

Dated: June 4, 1984.

John L. Rankin,  
Regional Manager, Gulf of Mexico Region.

[FR Doc. 84-15683 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-MR

## National Park Service

### National Register of Historic Places; Notification of Pending Nominations

Nominations for the following properties being considered for listing in the National Register were received by the National Park Service before June 1, 1984. Pursuant to § 60.13 of 36 CFR Part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded to the National Register, National Park Service, U.S. Department of the Interior, Washington, DC 20343. Written

comments should be submitted by June 27, 1984.

Carol D. Shull,  
Chief of Registration, National Register.

## CONNECTICUT

### Hartford County

Hartford, *Elm Street Historic District*, 71-166 Capitol Ave., 55-97 Elm St., and 20-30 Trinity St. New Britain, *Holmes, Francis H. House*, 349 Rocky Hill Ave.

### Middlesex County

Old Saybrook, *Whittlesey, John Jr., House*, 40 Ferry Rd.

### New Haven County

New Haven, *Quinnipiac River Historic District*, Roughly bounded by Quinnipiac Ave., Lexington, Chapel, Ferry, Pine, Front, and Lombard Sts.

## GEORGIA

### Bartow County

Cartersville, *Grand Theater*, 2 Wall St.

### Carroll County

Carrollton, *South Carrollton Residential Historic District*, Roughly bounded by RR tracks, Harmon and West Aves., Bradley, Mill, and Garrett Sts., Tillman and Hill Drs.

### Clarke County

Athens vicinity, *Chestnut Grove School*, 610 Epps Bridge Rd.

### Hancock County

White Plains vicinity, *Jackson, John S., Plantation House and Outbuildings*, Off GA 16

### Lowndes County

Valdosta, *Fairview Historic District*, W. Central, Floyd, River, Varnedoe, and Wells Sts.

Valdosta, *North Patterson Street Historic District*, 1003-1111 N. Patterson St.

### Marion County

Friendship vicinity, *Champion-McGarrah Plantation*, Off Ga 30

### Sumter County

Plains, *Plains Historic District*, Roughly bounded by Buena Vista Rd., Hospital, Clark, Main, Thomas, Paschal, and Bond Sts.

### white County

Sautee vicinity, *Harshaw-Stovall House*, GA 255

## NEBRASKA

### Lancaster County

Lincoln, *College View Public Library*, 3800 S. 48th St.

## NEW YORK

### Delaware County

Andes, *Andes Historic District*, Delaware Ave., Main and High Sts., and Tremperskill Rd.

### Orange County

Balmville, *Maple Lawn*, 24 Downing Ave.

## PENNSYLVANIA

### Allegheny County

Pittsburgh, *Longfellow School (Deniston School)*, Monroe St. and McClure Ave.

### Chester County

West Chester, *Sharples Separator Works*, N. Franklin and Evans Sts.

### Lancaster County

East Earl, *Spring Grove Forge Mansion*, Spring Grove Rd.  
Lancaster, *Hamilton Apartments*, 247-249 N. Duke St. and 104-118 E. Walnut St.

### Lehigh County

Macungie, *Weaver, Valentine, House*, 148 S. Church St.

## PUERTO RICO

### San Juan County

Bayamon, *Casa Natal Dr. Jose Celso Barbosa*, 13 Barbosa St.

## UTAH

### Summit County

Park City, *Austin, William, House (Mining Boom Era Houses TR)*, 247 Ontario Ave.  
Park City, *Barnes, Charles, House (Mining Boom Era Houses TR)*, 413 Ontario Ave.  
Park City, *Barrett, Richard, House (Mining Boom Era Houses TR)*, 36 Prospect Ave.  
Park City, *Barry, George J., House (Mining Boom Era Houses TR)*, 250 Grant Ave.  
Park City, *Beggs, Ellsworth J., House (Mining Boom Era Houses TR)*, 703 Park Ave.  
Park City, *Bogan Boarding House (Mining Boom Era Houses TR)*, 221 Main St.  
Park City, *Brown, Otis L., House (Mining Boom Era Houses TR)*, 713 Woodside Ave.  
Park City, *Buck, John W., House (Mining Boom Era Houses TR)*, 1110 Woodside Ave.  
Park City, *Campbell, William, House (Mining Boom Era Houses TR)*, 164 Norfolk St.  
Park City, *Carling, Benedictus, House (Mining Boom Era Houses TR)*, 660 Rosslo Hill Dr.  
Park City, *Cassidy, James, House (Mining Boom Era Houses TR)*, 33 King Rd.  
Park City, *Cavanaugh, James House (Mining Boom Era Houses TR)*, 564 Woodside Ave.  
Park City, *Clark, Peter, House (Mining Boom Era Houses TR)*, 1135 Park Ave.  
Park City, *Condon, David F. and Elizabeth, House (Mining Boom Era Houses TR)*, 1304 Park Ave.  
Park City, *Cunningham, John F., House (Mining Boom Era Houses TR)*, 606 Park Ave.  
Park City, *Cunningham, Thomas, House (Mining Boom Era Houses TR)*, 139 Main St.  
Park City, *Diem, John, House (Mining Boom Era Houses TR)*, 401 Park Ave.  
Park City, *Durkin Boarding House (Mining Boom Era Houses TR)*, 176 Main St.  
Park City, *Durkin, Joseph, House (Mining Boom Era Houses TR)*, 22 Prospect Ave.  
Park City, *Farthelos, Peter, House (Mining Boom Era Houses TR)*, 1150 Park Ave.  
Park City, *Ferry, William M., Mansion (Mining Boom Era Houses TR)*, 1835 Monitor Dr.

Park City, *Frkovich, Mike, House (Mining Boom Era Houses TR)*, 162 Daly Ave.  
 Park City, *Gray, Levins, D., House (Mining Boom Era Houses TR)*, 355 Ontario Ave.  
 Park City, *Hansen, Frank, House (Mining Boom Era Houses TR)*, 1025 Park Ave.  
 Park City, *Harris, Joseph D., House (Mining Boom Era Houses TR)*, 959 Park Ave.  
 Park City, *Harris, William H., House (Mining Boom Era Houses TR)*, 39 King Rd.  
 Park City, *Haumann, Harry W., House (Mining Boom Era Houses TR)*, 939 Empire Ave.  
 Park City, *Hinsdill, Henry M., House (Mining Boom Era Houses TR)*, 662 Norfolk St.  
 Park City, *Holman, Samuel, House (Mining Boom Era Houses TR)*, 307 Norfolk St.  
 Park City, *House at 101 Prospect Street (Mining Boom Era Houses TR)*, 101 Prospect St.  
 Park City, *House at 1101 Norfolk Avenue (Mining Boom Era Houses TR)*, 1101 Norfolk Ave.  
 Park City, *House at 343 Park Avenue (Mining Boom Era Houses TR)*, 343 Park Ave.  
 Park City, *House at 544 Deer Valley Road (Mining Boom Era Houses TR)*, 544 Deer Valley Rd.  
 Park City, *House at 555 Deer Valley Road (Mining Boom Era Houses TR)*, 555 Deer Valley Rd.  
 Park City, *House at 577 Deer Valley Road (Mining Boom Era Houses TR)*, 577 Deer Valley Rd.  
 Park City, *House at 62 Daly Avenue (Mining Boom Era Houses TR)*, 62 Daly Ave.  
 Park City, *House at 622 Rossie Hill Drive (Mining Boom Era Houses TR)*, 622 Rossie Hill Dr.  
 Park City, *IOOF Relief Home (Mining Boom Era Houses TR)*, 232 Woodside Ave.  
 Park City, *Jenkins, Charles V., House (Mining Boom Era Houses TR)*, 949 Park Ave.  
 Park City, *Jenkins, Joseph J., House (Mining Boom Era Houses TR)*, 57 Prospect Ave.  
 Park City, *Johnson, Ancil, House (Mining Boom Era Houses TR)*, 402 Marsac Ave.  
 Park City, *Johnson, Carl G., House (Mining Boom Era Houses TR)*, 147 Grant Ave.  
 Park City, *Jones, Elizabeth M., House (Mining Boom Era Houses TR)*, 412 Marsac Ave.  
 Park City, *Kimball, Burt, House (Mining Boom Era Houses TR)*, 817 Park Ave.  
 Park City, *Kimball, Ernest Lynn, House (Mining Boom Era Houses TR)*, 911 Empire Ave.  
 Park City, *Lindorff, Alfred, House (Mining Boom Era Houses TR)*, 40 Sampson Ave.  
 Park City, *Meadowcroft, Charles, House (Mining Boom Era Houses TR)*, 951 Woodside Ave.  
 Park City, *Morgan, Jesse, House (Mining Boom Era Houses TR)*, 1027 Woodside Ave.  
 Park City, *Murdock, Jack M., House (Mining Boom Era Houses TR)*, 652 Rossie Hill Dr.  
 Park City, *Murray, George, House (Mining Boom Era Houses TR)*, 44 Chambers Ave.  
 Park City, *Raddon, LaPage H., House (Mining Boom Era Houses TR)*, 817 Woodside Ave.  
 Park City, *Raddon, Samuel L., House (Mining Boom Era Houses TR)*, 325 Park Ave.  
 Park City, *Richardson, Jacob F., House (Mining Boom Era Houses TR)*, 205 Park Ave.  
 Park City, *Rowe, Nicholas, House (Mining Boom Era Houses TR)*, 150 Main St.

Park City, *Snyder, Wilson I., House (Mining Boom Era Houses TR)*, 1010 Woodside Ave.  
 Park City, *Streeter, Eugene, House (Mining Boom Era Houses TR)*, 335 Ontario Ave.  
 Park City, *Sullivan, James R. and Mary E., House (Mining Boom Era Houses TR)*, 148 Main St.  
 Park City, *Sutton, Ephraim D. and William D., House (Mining Boom Era Houses TR)*, 713 Norfolk St.  
 Park City, *Thomas, Milton and Minerva, House (Mining Boom Era Houses TR)*, 445 Park Ave.  
 Park City, *Tretheway, William, House (Mining Boom Era Houses TR)*, 335 Woodside Ave.  
 Park City, *Urie, Matthew, House (Mining Boom Era Houses TR)*, 157 Park Ave.  
 Park City, *Walker, Samuel D., House (Mining Boom Era Houses TR)*, 1119 Park Ave.  
 Park City, *Watson, Irinda, House (Mining Boom Era Houses TR)*, 610 Park Ave.  
 Park City, *Welch-Sherman House (Mining Boom Era Houses TR)*, 59 Prospect Ave.  
 Park City, *Wells, Hannah, House (Mining Boom Era Houses TR)*, 1103 Woodside Ave.  
 Park City, *Whitehead, Charles C., House (Mining Boom Era Houses TR)*, 937 Park Ave.  
 Park City, *Wilcocks, Walter and Ann, House (Mining Boom Era Houses TR)*, 363 Park Ave.  
 Park City, *Wilkinson-Hawkinson House (Mining Boom Era Houses TR)*, 39 Sampson Ave.  
 Park City, *Williams, Nathaniel J., House (Mining Boom Era Houses TR)*, 945 Norfolk Ave.  
 Park City, *Williams, Reese, House (Park City Hospital) (Mining Boom Era Houses TR)*, 421 Park Ave.  
 Park City, *Willis, Joseph S., House (Mining Boom Era Houses TR)*, 1062 Park Ave.  
 Park City, *Wilson-Shields House (Mining Boom Era Houses TR)*, 139 Park Ave.

#### VERMONT

##### Chittenden County

Burlington, *Battery Street-King Street Historic District (Boundary Increase)*, Roughly bounded by Brown's Court, King, Adams, and S. Union Sts.

[FR Doc. 84-15553 Filed 6-11-84; 8:45 am]  
 BILLING CODE 4310-70-M

#### Subsistence Resource Commission Meeting

**AGENCY:** National Park Service Alaska Region, Interior.

**ACTION:** Subsistence Resource Commission Meeting.

**SUMMARY:** The Alaska Regional Office of the National Park Service announces a forthcoming meeting of the Cape Krusenstern National Monument Subsistence Resource Commission. The following agenda items will be discussed:

1. Alaska Department of Fish and Game management programs.

2. Trapping.

3. State consideration of commission recommendations.

4. Current land status.

5. General management plan update.

6. Resident zones.

**DATES:** The meeting will begin at 8:00 a.m. on July 30, 1984, and conclude the afternoon of July 31, 1984.

**ADDRESS:** The meeting will be held in the Nana Conference Room, Kotzebue, Alaska.

**FOR FURTHER INFORMATION CONTACT:** Mack Shaver, Superintendent, Kobuk Valley National Park, P.O. Box 287, Kotzebue, Alaska 99752.

**SUPPLEMENTARY INFORMATION:** The Cape Krusenstern National Monument Subsistence Resource Commission is authorized under Title VIII, section 803, of the Alaska National Interest Lands Conservation Act Pub. L. 98-487.

Robert L. Peterson,  
 Regional Director, Alaska Region.

[FR Doc. 84-15552 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-70-M

#### Bureau of Reclamation

#### Jackson Lake Safety of Dams Project, Wyoming-Idaho; Availability of Draft Environmental Statement

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, as amended, the Department of the Interior has prepared a draft environmental impact statement on the proposed Jackson Lake Safety of Dams Project. The proposed project would include actions to assure the safety of Jackson Lake Dam, located in Grand Teton National Park, and maintain benefits of the dam and Jackson Lake while maintaining national park values.

Copies are available for inspection at the following locations:

Office of Environmental Affairs, Bureau of Reclamation, Washington, D.C. 20240. Telephone: (202)343-4991  
 Division of Environmental Compliance, National Park Service, Washington, D.C. 20240. Telephone: (202)343-2163  
 Regional Office of Environment, Bureau of Reclamation, Federal Building, Box 043, 550 West Fort Street, Boise, Idaho 83724. Telephone: (208)334-1207  
 Regional Environmental Compliance Office, National Park Service, P.O. Box 25287, Denver, Colorado 80225. Telephone: (303)234-4942  
 Minidoka Project Office, Bureau of Reclamation, 1359 Hansen Avenue, Burley, Idaho 83318. Telephone: (208)678-0461

Park Superintendent, Grand Teton National Park, Moose, Wyoming 83012. Telephone: (307)733-2880

Single copies of the statement may be obtained on request to the Bureau of Reclamation or the National Park Service at the above addresses. Copies will also be available for inspection in libraries in the project vicinity.

Dated: June 7, 1984.

Terence N. Martin,

*Acting Director, Office of Environmental Project Review, Department of the Interior.*

[FR Doc. 84-15641 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-09-M

### **Proposed Jackson Lake Safety of Dams Project, Wyoming-Idaho; Public Hearing on Draft Environmental Impact Statement**

Pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969, as amended, the Department of the Interior has prepared a draft environmental impact statement on the proposed Jackson Lake Safety of Dams Project. Jackson Lake is located in Grand Teton National Park, Wyoming, and is one of the reservoirs in Reclamation's Minidoka Project which serves over 1 million acres of irrigated land in southern Idaho. Reclamation studies have shown that Jackson Lake Dam could fail during a major earthquake in the vicinity. The statement was prepared jointly by two Department of the Interior agencies, the National Park Service, and the Bureau of Reclamation. The Forest Service served as a cooperating agency.

Public hearing sessions have been scheduled to provide the opportunity for interested citizens to comment on the adequacy and content of the draft statement. The schedule is as follows:

*Session 1:* July 10, 1984, Tuesday, Westbank Motel, Idaho Falls, Idaho, 7:30 p.m.

*Session 2:* July 11, 1984, Wednesday, Wort Hotel, Jackson, Wyoming, 2 p.m.

*Session 3:* July 11, 1984, Wednesday, Wort Hotel, Jackson, Wyoming, 7:30 p.m.

*Session 4:* July 12, 1984, Thursday, Burley Inn, Burley, Idaho, 7:30 p.m.

Those wishing to request time to make comments prior to the date of the sessions should address such requests to the Regional Director, Attention: 150, Bureau of Reclamation, Box 043, 550 West Fort Street, Boise, Idaho 83724, or phone (208) 334-1207. Requests should be received by July 6, 1984. Individuals will be called upon to speak in the order in which their requests were received by the Bureau. Requests to speak may also

be made at the time of each session and will be called after the advance requests. Oral comments will be limited to 10 minutes per individual. Written comments for the hearing record from those unable to attend and those wishing to supplement their oral presentation at the hearing should be sent to the above address by July 20, 1984.

Dated: June 7, 1984.

Terence N. Martin,

*Acting Director, Office of Environmental Project Review, Department of the Interior.*

[FR Doc. 84-15642 Filed 6-11-84; 8:45 am]

BILLING CODE 4310-09-M

### **UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY**

#### **Agency for International Development**

[Redelegation of Authority No. 134.2]

#### **Redelegation of Authority To Register U.S. Private and Voluntary Organizations**

1. Pursuant to the authority delegated from the Administrator of A.I.D. to me as Assistant Administrator for Food for Peace and Voluntary Assistance under Delegation of Authority No. 134, I hereby redelegate the authority to register U.S. Private and Voluntary Organizations for purposes of Sections 123(b), 607(a) and 635(c) of the Foreign Assistance Act of 1961, as amended, and Sections 104(f) and 202(a) of the Agricultural Trade Development and Assistance Act of 1954 and for such other purposes as may be necessary under these Acts to the Director, Office of Private and Voluntary Cooperation, Bureau for Food for Peace and Voluntary Assistance.

2. I retain for myself concurrent authority to exercise the functions redelegated in paragraph 1, and such authority shall be exercised subject to instructions by me or my designee.

3. The authorities hereby redelegated may not be redelegated further, unless specifically authorized by me.

4. This Redelegation of Authority is effective immediately.

Dated: November 28, 1983.

Julia Chang Bloch,

*Assistant Administrator for Food for Peace and Voluntary Assistance.*

[FR Doc. 84-15676 Filed 6-11-84; 8:45 am]

BILLING CODE 6116-01-M

### **INTERSTATE COMMERCE COMMISSION**

[Docket No. AB-55; Sub-98]

#### **Seaboard System Railroad, Inc.; Abandonment; In Greene, Oglethorpe, and Clarke Counties, GA; Findings**

The Commission has found that the public convenience and necessity permit Seaboard System Railroad, Inc. to abandon its 36.21-mile rail line between Athens (milepost 37.0) and Union Point (milepost 0.79) in Greene, Oglethorpe, and Clarke Counties, GA. A certificate will be issued authorizing this abandonment unless within 15 days after this publication the Commission also finds that: (1) A financially responsible person has offered assistance (through subsidy or purchase) to enable the rail service to be continued; and (2) it is likely that the assistance would fully compensate the railroad.

Any financial assistance offer must be filed with the Commission and the applicant no later than 10 days from publication of this Notice. The following notation shall appear on the lower lefthand corner of the envelope containing the offer: "AB-OFA." Any offer previously made must be remade within this 10-day period.

Information and procedures regarding financial assistance for continued rail service are contained in 49 U.S.C. 10905 and 49 CFR 1152.27.

James H. Bayne,

*Secretary.*

[FR Doc. 84-15639 Filed 6-11-84; 8:45 am]

BILLING CODE 7035-01-M

### **DEPARTMENT OF LABOR**

#### **Office of the Secretary**

#### **Agency Forms Under Review by the Office of Management and Budget (OMB)**

##### **Background**

The Department of Labor, in carrying out its responsibility under the Paperwork Reduction Act (44 U.S.C. Chapter 35), considers comments on the proposed forms and recordkeeping requirements that will affect the public.

##### **List of Forms Under Review**

On each Tuesday and/or Friday, as necessary, the Department of Labor will publish a list of the Agency forms under review by the Office of Management and Budget (OMB) since the last list was published. The list will have all entries grouped into new collections, revisions,

extensions, or reinstatements. The Departmental Clearance Officer will, upon request, be able to advise members of the public of the nature of any particular revision they are interested in.

Each entry will contain the following information:

The Agency of the Department issuing this form.

The title of the form.

The OMB and Agency form numbers, if applicable.

How often the form must be filled out.

Who will be required to or asked to report.

Whether small businesses or organizations are affected.

An estimate of the number of responses.

An estimate of the total number of hours needed to fill out the form.

The number of forms in the request for approval.

An abstract describing the need for and uses of the information collection.

#### Comments and Questions

Copies of the proposed forms and supporting documents may be obtained by calling the Departmental Clearance Officer, Paul E. Larson, Telephone 202-523-6331. Comments and questions about the items on this list should be directed to Mr. Larson, Office of Information Management, U.S. Department of Labor, 200 Constitution Avenue NW., Room S-5526, Washington, D.C. 20210. Comments should also be sent to the OMB reviewer, Arnold Strasser, Telephone 202-395-6880, Office of Information and Regulatory Affairs, Office of Management and Budget, Room 3203, NEOB, Washington, D.C. 20503.

Any member of the public who wants to comment on a form which has been submitted to OMB should advise Mr. Larson of this intent at the earliest possible date.

#### Extension

Mine Safety and Health Administration  
Main Fan Inspection and Maintenance  
Log, Gassy Mines  
1219-0030

#### Daily

Businesses and other for profit; small businesses or organizations  
6,400 responses; 3,200 hours

Standard 57.21-21 requires that records be kept of the daily inspections of the main fans in metal and nonmetal underground mines which have been classified as gassy. The records are used to maintain a constant vigil on mine ventilation.

Inspections of Firefighting Equipment

1219-0087

#### Monthly

Businesses and other for profit; small businesses or organizations  
159,264 responses; 637,056 hours

Standard 55/56/57.4-23 requires that records be kept of periodic inspections of firefighting equipment. The records help assure that the equipment will be operable when needed.

Signed at Washington, D.C., this 7th day of June 1984.

Paul E. Larson,

*Departmental Clearance Officer.*

[FR Doc. 84-15725 Filed 6-11-84; 8:45 am]

BILLING CODE 4510-43-M

### Agency Forms Under Review by the Office of Management and Budget (OMB)

#### Background

The Department of Labor, in carrying out its responsibility under the Paperwork Reduction Act (44 U.S.C. Chapter 35), considers comments on the proposed forms and recordkeeping requirements that will affect the public.

#### List of Forms Under Review

On each Tuesday and/or Friday, as necessary, the Department of Labor will publish a list of the Agency forms under review by the Office of Management and Budget (OMB) since the last list was published. The list will have all entries grouped into new collections, revisions, extensions, or reinstatements. The Departmental Clearance Officer will, upon request, be able to advise members of the public of the nature of any particular revision they are interested in.

Each entry will contain the following information:

The Agency of the Department issuing this form.

The title of the form.

The OMB and Agency form numbers, if applicable.

How often the form must be filled out.

Who will be required to or asked to report.

Whether small businesses or organizations are affected.

An estimate of the number of responses.

An estimate of the total number of hours needed to fill out the form.

The number of forms in the request for approval.

An abstract describing the need for and uses of the information collection.

#### Comments and Questions

Copies of the proposed forms and supporting documents may be obtained

by calling the Departmental Clearance Officer, Paul E. Larson, Telephone 202-523-6331. Comments and questions about the items on this list should be directed to Mr. Larson, Office of Information Management, U.S. Department of Labor, 200 Constitution Avenue NW., Room S-5526, Washington, D.C. 20210. Comments should also be sent to the OMB reviewer, Arnold Strasser, Telephone 202-395-6880, Office of Information and Regulatory Affairs, Office of Management and Budget, Room 3203, NEOB, Washington, D.C. 20503.

Any member of the public who wants to comment on a form which has been submitted to OMB should advise Mr. Larson of this intent at the earliest possible date.

#### Extension

#### Employment and Training

##### Administration

Disaster Unemployment Assistance (DUA) Handbook Program Operating Forms

1205-0051; ETA 81, 81A, 82, 83, 84

On occasion; weekly

Individuals or households

92,035 responses; 12,483 hours; 5 forms

Pub. L. 93-288 (Sec. 407) provides for benefit assistance to "any individual unemployed as a result of a major disaster." The forms in Chapters III to VII of the DUA Handbook are used by State agencies in connection with the provision of this benefit assistance.

#### Reinstatement

#### Employment and Training

##### Administration

Statement of Expenditures and Financial Condition of Federal Funds for Unemployment Compensation for Federal Employees and Ex-Servicemen

ETA 191; 1205-0162

#### Monthly

State or local governments

636 responses; 954 hours; 1 form

This form is used by State Employment Security Agencies to report actual unemployment compensation benefits paid to Federal employees and ex-servicemen.

#### Reinstatement

#### Employment and Training

##### Administration

Characteristics of the Insured Unemployed

1205-0003; ETA 203, 203T

#### Quarterly

State or local governments

212 responses; 106 hours.



This report is the only source of current, consistent, uniform, demographic information on the UI claimant population. The age, sex, race, industry and occupation variables identify important claimant cohorts for legislative, economic, and social planning purposes and evaluation of the UI program on the Federal and State Levels.

Signed at Washington, D.C., this 6th day of June 1984.

Paul E. Larson,  
*Departmental Clearance Officer.*

[FR Doc. 84-15752 Filed 6-11-84; 8:45 am]

BILLING CODE 4510-30-M

### Employment and Training Administration

[TA-W-15,300]

#### Johnson Steel & Wire Co., Worcester, Massachusetts; Termination of Investigation

Pursuant to section 221 of the Trade Act of 1974, an investigation was initiated on April 16, 1984 in response to a worker petition received on April 9, 1984 which was filed by the United Steelworkers of America on behalf of workers producing carbon steel wire at the Johnson Steel & Wire Co., Worcester, Massachusetts.

The petitioner requested withdrawal of the petition in a letter dated May 21, 1984. On the basis of the withdrawal, continuing the investigation would serve no purpose. Consequently the investigation has been terminated.

Signed at Washington, D.C., this 4th day of June 1984.

Marvin M. Fooks,  
*Director, Office of Trade Adjustment Assistance.*

[FR Doc. 84-15754 Filed 6-11-84; 8:45 am]

BILLING CODE 4510-30-M

[TA-W-14,898]

#### General Electric Co., Video Products Business Division, Portsmouth, Virginia; Amended Certification Regarding Eligibility To Apply for Worker Adjustment Assistance

According to section 223 of the Trade Act of 1974 (19 U.S.C. 2273) the Department of Labor issued a certification of eligibility to apply for worker adjustment assistance on March 16, 1984 to workers and former workers of the General Electric Company's Video Products Business Division, Portsmouth, Virginia. The Notice of Certification was

published in the Federal Register on March 23, 1984 (49 FR 11024).

On the basis of additional information, the Office of Trade Adjustment Assistance, on its own motion, reviewed the certification for the Portsmouth, Virginia workers of the Video Products Business Division of the General Electric Company, TA-W-14,898. The additional information revealed that additional layoffs occurred in August 1982 resulting from the transfer of plastic chassis brackets and chassis line production to foreign sources. The chassis and brackets then re-enter the U.S. for assembly into color TV sets at General Electric's Portsmouth, Virginia plant.

It was the Department's intent to include all workers as eligible to apply for adjustment assistance who were laid off from the Video Products Business Division of General Electric in Portsmouth, Virginia.

The amended certification for TA-W-14,898 is hereby issued as follows:

"All workers of the Chassis Line and those engaged in employment related to the production of plastic chassis brackets at the General Electric Company, Video Products Business Division, Portsmouth, Virginia who became totally or partially separated from employment on or after July 28, 1982 and before January 1, 1983 and all workers of General Electric Company, Video Products Business Division, Portsmouth, Virginia who became totally or partially separated from employment on or after January 1, 1983 and before August 1, 1983 are eligible to apply for adjustment assistance under Section 223 of the Trade Act of 1974."

Signed at Washington, D.C., this 5th day of June 1984.

Harold A. Bratt,  
*Deputy Director, Office of Program Management, UIS.*

[FR Doc. 84-15753 Filed 6-11-84; 8:45 am]

BILLING CODE 4510-30-M

### NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 83-58]

#### National Environmental Policy Act; Notice of Availability of Draft Environmental Impact Statement

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

**ACTION:** Notice of Availability of Draft Environmental Impact Statement.

**SUMMARY:** Pursuant to section 102(2)(c)

of the National Environmental Policy Act of 1969, the National Aeronautics and Space Administration has prepared a draft environmental impact statement (EIS) relating to the proposed Centaur Upper Stage for use with the Space Transportation System. Comments on the draft EIS and on matters set forth therein are solicited from and may be submitted by state and local agencies and members of the public. Such comments should be submitted to Mr. John Castellano, Centaur Program Officer, Code MSD, Washington, DC 20546. All comments must be received within 45 days of this notice in order to be considered in the preparation of the final EIS.

Copies of the draft statement may be obtained or examined at any of the following locations:

(a) NASA Headquarters, Public Documents Room (Room 126), 600 Independence Avenue, SW, Washington, DC 20546.

(b) NASA/Ames Research Center (Building 201, Room 17), Moffett Field, CA 94035.

(c) NASA/Ames Research Center, Dryden Flight Research Facility (Building 4800, Room 1017), PO Box 273, Edwards, CA 93523.

(d) NASA/Goddard Space Flight Center (Building 8, Room 150), Greenbelt, MD 20771.

(e) NASA/Johnson Space Center (Building 1, Room 136), Houston, TX 77058.

(f) NASA/Kennedy Space Center (Headquarters Building, Room 1207), Kennedy Space Center, FL 32899.

(g) NASA/Langley Research Center (Building 1219, Room 304), Hampton, VA 23365.

(h) NASA/Lewis Research Center (Administration Building, Room 120), 21000 Brookpark Road, Cleveland, OH 44135.

(i) NASA/Marshall Space Flight Center (Building 4200, Room G-11), Huntsville, AL 35812.

(j) NASA/National Space Technology Laboratories (Building 1100, Room A-213), Bay St. Louis, MS 39520.

(k) Jet Propulsion Laboratory (Building 180, Room 600), 4800 Oak Grove Drive, Pasadena, CA 91109.

(l) NASA/Goddard Space Flight Center, Wallops Flight Facility (Library Building, Room E-105), Wallops Island, VA 23337.

Dated: May 21, 1984.

John W. Boyd,  
*Associate Administrator for Management.*

[FR Doc. 84-15614 Filed 6-11-84; 8:45 am]

BILLING CODE 7510-01-M

**NUCLEAR REGULATORY COMMISSION****[Docket Nos. 50-440 OL, 50-441 OL]****Cleveland Electric Illuminating Co., et al. (Perry Nuclear Power Plant, Units 1 & 2); Oral Argument**

Notice is hereby given that, in accordance with the Appeal Board's order of June 6, 1984, oral argument on the appeal of Sunflower Alliance from the Licensing Board's partial initial decision concerning quality assurance (LBP-83-77, 18 NRC 1365 (1983)) will be held at 10:00 a.m. on Wednesday, August 8, 1984, in the NRC Public Hearing Room, Fifth Floor, East-West Towers Building, 4350 East-West Highway, Bethesda, Maryland.

Dated: June 6, 1984.

For the Appeal Board.

C. Jean Shoemaker,

Secretary to the Appeal Board.

[FR Doc. 84-15735 Filed 6-11-84; 8:45 am]

BILLING CODE 7590-01-M

**[Docket No. 50-142 OL (Proposed Renewal of Facility License)]****The Regent of the University of California (UCLA Research Reactor); Evidentiary Hearing**

June 6, 1984.

Please take notice that, pursuant to the agreement of the parties, an evidentiary hearing in the above proceeding on Contention (Physical Security) will be held as follows.

On Thursday, June 21, 1984, the hearing will be held in the NRC Hearing Room located on the fifth floor of 4350 East-West Highway, Bethesda, Maryland. This portion of the hearing will be open to the public.

Commencing on Monday, June 25, 1984, the hearing will be held in the Court of Claims located on the 8th floor of the Federal Building, 300 North Los Angeles Street, Los Angeles, California 90012. The hearing will continue at that location each day thereafter until completion, but in no event beyond Friday, June 29, 1984. Because this portion of the hearing will deal with sensitive security information, it will not be open to the public.

Each day's session of the hearing will begin at 9:30 a.m.

It is so ordered.

Dated: June 6, 1984, Bethesda, Maryland.

For the Atomic Safety and Licensing Board.

John H. Frye, III,

Chairman, Administrative Judge.

[FR Doc. 84-15738 Filed 6-11-84; 8:45 am]

BILLING CODE 7590-01-M

**[Docket No. 50-406]****Tuskegee Institute; Proposed Issuance of Order Authorizing Disposition of Component Parts and Termination of Facility License**

The U.S. Nuclear Regulatory Commission (Commission) is considering issuance of an Order authorizing Tuskegee Institute to dispose of the component parts of the training and research reactor in their possession, in accordance with licensee's application dated August 9, 1983, and to terminate the Facility Operating License No. R-122. This reactor has never been assembled at the licensee's facility, and the fuel has been shipped from the site.

Prior to issuance of the Order, the Commission will have made the findings required by the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations.

By June 27, 1984, the licensee may file a request for a hearing with respect to issuance of the subject Order and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate Order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) The nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any Order which may be entered on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner

wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters within the scope of the action under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the Order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

A request for a hearing or a petition for leave to intervene shall be filed with the Secretary of the Commission, United States Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Section, or may be delivered to the Commission's Public Document Room, 1717 H Street NW., Washington, D.C. by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner or representative for the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Cecil O. Thomas: (petitioner's name and telephone number); (date petition was mailed); (Tuskegee Institute); and (publication date and page number of this Federal Register notice). A copy of the petition should also be sent to the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and the Benjamin Payton, President, Tuskegee Institute, Tuskegee, Alabama 36088.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests

for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition and/or request, that the petitioner has made a substantial showing of good cause for the granting of a late petition and/or request. That determination will be based upon a balancing of the factors specified in 10 CFR 2.714(a) (i)-(v) and 2.714(d).

For further details with respect to this action, see the licensee's application dated August 9, 1983, which is available for public inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C.

Dated at Bethesda, Maryland, this 5th day of June 1984.

For the Nuclear Regulatory Commission,  
Cecil O. Thomas,  
Chief, Standardization & Special Projects  
Branch, Division of Licensing.

[FR Doc. 84-15737 Filed 6-11-84; 8:45 am]  
BILLING CODE 7590-01-M

#### Advisory Committee on Reactor Safeguards; Subcommittee on Qualification Program for Safety-Related Equipment; Meeting Cancellation

The ACRS Subcommittee on Qualification Program for Safety-Related Equipment scheduled for June 19, 1984 has been cancelled. Notice of this meeting was published Monday, June 4, 1984 (49 FR 23129).

Dated: June 7, 1984.

Morton W. Libarkin,  
Assistant Executive Director for Project Review.

[FR Doc. 84-15732 Filed 6-11-84; 8:45 am]  
BILLING CODE 7590-01-M

#### PEACE CORPS

##### Submission of Public Use Form Use Review Request to the Office of Management and Budget

**SUMMARY:** Pursuant to the Paperwork Reduction Act of 1981 (44 U.S.C. Chapter 35), the Peace Corps has submitted to the Office of Management and Budget, a request to approve the use of the Decline Information Card through July 1, 1987. The card is completed voluntarily by those invited to Peace Corps training who decline the invitation. The card provides information concerning the reasons for declining an invitation as well as suggestions as to how the Volunteer Delivery System could be improved. This information is necessary for Peace Corps to evaluate the

effectiveness of the Volunteer Delivery System. The information provided will not/cannot be used to identify specific individuals who have filled out the card.

##### Information About the Form

**Agency Address:** Peace Corps, 806 Connecticut Avenue NW., Washington D.C. 20526.

**Title:** Decline Information Card.

**Type of Request:** Approval of Use.

**Frequency of Collection:** On occasion.

**General Description of Respondent:** Individuals who were extended invitations to Peace Corps Volunteer training, who declined the invitations.

**Estimated Number of Responses:** 500 annually.

**Estimated Hours for Respondents to Furnish Information:** Fifteen (15) minutes each.

**Respondents' Obligation to Reply:** Voluntary.

**Comments:** Comments on this form request should be directed to Francine Picoult, Desk Officer, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

Comments should be received on or before August 13, 1984.

A copy of the form may be obtained from Bruce DeAtley, Office of Placement, Peace Corps, 806 Connecticut Avenue NW., Room 906, Washington, D.C. 20526. Mr. DeAtley may be called at 202-632-6595.

This is not a request to which 44 U.S.C. 3504(h) applies. This notice is issued in Washington, D.C. on June 5, 1984.

Robert T. Spencer,  
Associate Director for Management.

[FR Doc. 84-15719 Filed 6-11-84; 8:45 am]  
BILLING CODE 6051-01-M

#### SECURITIES AND EXCHANGE COMMISSION

[Release No. 84-21006; File No. SR-AMEX-84-14]

##### Self-Regulatory Organizations; Proposed Rule Change by American Stock Exchange, Inc., Relating to AUTOPER ODD-LOT

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934, 15 U.S.C. 78s(b)(1), notice is hereby given that on May 21, 1984, the American Stock Exchange, Inc. filed with the Securities and Exchange Commission the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to

solicit comments on the proposed rule change from interested persons.

##### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The American Stock Exchange, Inc. has decided to establish as a permanent floor-wide enhancement to the Exchange's Post Execution Reporting (PER) system the AUTOPER ODD-LOT program, which enables specialists to execute odd-lot market orders via the touch-screen AUTOPER system.

##### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of such statements.

##### A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

###### (1) Purpose

The Exchange plans to implement a permanent floor-wide enhancement to the AUTOPER system, which permits participating specialists to enter Post Execution Reporting (PER) system execution data using touch-screen technology. The new feature, called AUTOPER ODD-LOT, will provide an odd-lot (under 100 shares) execution system for market day orders received both before and after the opening. AUTOPER presently handles up to 300 share round-lot market orders and up to 500 share marketable limit orders.

Currently, pre-opening odd-lot orders are stored and processed by the Opening Automated Report System (OARS) and sent to the specialist's post via PER. AUTOPER ODD-LOT will supersede OARS for pre-opening orders and will accumulate eligible odd-lot orders by security throughout the day. When a last sale price is established for a security, a cluster of orders will be "frozen" and routed to the participating specialist for display on his AUTOPER touch-screen. The specialist may execute the cluster by touching the appropriate box on his screen, or he may remove the cluster from the

terminal and execute via standard card input. As the odd-lot order box on his screen becomes available, the next chronological "frozen" cluster will be moved into the order box for execution. Following the execution of each cluster, the system will maintain an ongoing daily cumulative total for each security. Odd-lot differentials, if any, will be determined and updated by each specialist and will be automatically applied by the system to each security.

AUTOPER ODD-LOT will increase the order handling capability of the PER system and provide for more efficient and accurate execution and reporting of odd-lot orders. The program will be phased-in to all specialist units participating in the AUTOPER program.

## (2) Basis

The implementation of AUTOPER ODD-LOT is consistent with section 6(b) of the Act in general and furthers the objectives of section 6(b)(5) in particular in that it is designed to facilitate transactions in securities and perfect the mechanism of a free and open market. The proposed rule change will afford quicker and more accurate execution and reporting of odd-lot market orders and will thus result in more efficient and effective market operations, consistent with section 11A(a)(1)(B) of the Act.

## B. Self-Regulatory Organization's Statement on Burden on Competition

The proposed rule change will create no burden on competition and in fact will enhance the Exchange's competitive status by providing an efficient, fast and accurate odd-lot order-handling system.

## C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

No written comments were solicited or received with respect to the proposed rule change.

## III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the Federal Register or within such longer period: (i) As the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

- (A) By order approve such proposed rule change, or
- (B) Institute proceedings to determine whether the proposed rule change should be disapproved.

## IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 5th Street, NW., Washington, D.C. 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 5th Street, NW., Washington, D.C. Copies of such filing will also be available for inspection and copying at the principal office of the above-mentioned self-regulatory organization. All submissions should refer to the file number in the caption above and should be submitted by July 3, 1984.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.

Dated: May 31, 1984.

George A. Fitzsimmons,  
Secretary.

[FR Doc. 84-15742 Filed 6-11-84; 8:45 am]  
BILLING CODE 8010-01-M

## SMALL BUSINESS ADMINISTRATION

[License No. 05/05-0197]

### A. T. Capital Corp.; Issuance of a Small Business Investment Company

On March 13, 1984, a notice was published in the Federal Register (49 FR 9532) stating that an application has been filed by A. T. Capital Corp., 900 Euclid Avenue, T-18, Cleveland, Ohio 44101, with the Small Business Administration (SBA) pursuant to § 107.102 of the Regulations governing small business investment companies (13 CFR 107.102 (1984)) for a license as a small business investment company.

Interested parties were given until close of business April 12, 1984, to submit their comments to SBA. No comments were received.

Notice is hereby given that, pursuant to section 301(c) of the Small Business Investment Act of 1958, as amended, after having considered the application and all other pertinent information, SBA issued License No. 05/05-0197 on June 4, 1984, to A. T. Capital Corp., to operate

as a small business investment company.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies)

Dated: June 6, 1984.

Robert G. Lineberry,  
Deputy Associate Administrator for Investment.

[FR Doc. 84-15742 Filed 6-11-84; 8:45 am]  
BILLING CODE 8025-01-M

[License No. 04/05-0086]

### Market Capital Corp.; Filing of Application for Approval of Conflict of Interest Transaction

Notice is hereby given that Market Capital Corporation (MCC), 1102 N. 28th Street, P.O. Box 22687, Tampa, Florida 33622, a Federal Licensee under the Small Business Investment Act of 1958, as amended (the Act), has filed an application with the Small Business Administration (SBA) pursuant to section 312 of the Act and covered by § 107.903 of the Rules and Regulations governing small business investment companies (13 CFR 107.903 (1984)) for approval of a conflict of interest transaction falling within the scope of the above section of the Act and the Regulations.

Subject to such approval, MCC proposes to loan \$30,000 to Foodway of Lake City, Inc., 2016 East Duval Street, Lake City, Florida 32055, to assist in the purchase of a small retail grocery store in the State of Florida.

The proposed Financing comes within the purview of § 107.903 of the Regulations because Mr. Havey Boris, 85 percent owner of Foodway of Lake City, Inc., is a member of the Board of Directors of Affiliated of Florida, Inc., a less-than-five percent shareholder of MCC, and thus is considered an Associate of MCC.

Notice is hereby given that any person may, not later than ten (10) days from the date of publication of this Notice, submit written comments on this proposed transaction to the Deputy Associate Administrator for Investment, U.S. Small Business Administration, 1441 L Street NW., Washington, D.C. 20416.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies)

Dated: June 6, 1984.

Robert G. Lineberry,  
*Deputy Associate Administrator for  
Investment.*

[FR Doc. 84-15743 Filed 6-11-84; 8:45 am]

BILLING CODE 8025-01-M

[License No. 05/08-0190]

**North Star Ventures II, Inc.; Issuance  
of a Small Business Investment  
Company License**

On March 14, 1984, a notice was published in the Federal Register (49 FR 4181) stating that an application has been filed by North Star Ventures II, Inc., with the Small Business Administration (SBA) pursuant to § 107.102 of the Regulations governing small business investment companies (48 FR 45014 (September 30, 1983)) for a license as a small business investment company.

Interested parties were given until close of business March 28, 1984, to submit their comments to SBA. No comments were received.

Notice is hereby given that, pursuant to section 301(c) of the Small Business Investment Act of 1958, as amended, after having considered the application and all other pertinent information, SBA issued License No. 05/05-0190 on May 17, 1984, to North Star Ventures II, Inc. to operate as a small business investment company.

(Catalog of Federal Domestic Assistance  
Program No. 59.011, Small Business  
Investment Companies)

Dated: June 6, 1984.

Robert G. Lineberry,  
*Deputy Associate Administrator for  
Investment.*

[FR Doc. 84-15744 Filed 6-11-84; 8:45 am]

BILLING CODE 8025-01-M

[Application No. 03/03-5173]

**Security Funding Corp.; Application for  
a License To Operate as a Small  
Business Investment Company**

An application for a license to operate as a small business investment company under the provisions of section 301(d) of the Small Business Investment Act of 1958, as amended (the Act) (15 U.S.C. 661 *et seq.*), has been filed by Security Funding Corp. (Applicant), 1010 Arch Street, Philadelphia, Pennsylvania 19107, with the Small Business Administration (SBA), pursuant to § 107.102 of the regulations governing small business investment companies (13 CFR 107.102 (1984)).

The officers, directors and shareholders of the Applicant are as follows:

Gerard Meister, 20 Seneca Place,  
Jericho, N.Y. 11753—President,  
Director, 12.5 percent shareholder <sup>1</sup>  
Norman Kanterman, 18 Herkimer  
Avenue, Jericho, N.Y. 11753—  
Secretary/Treasurer, Director,  
Manager, 12.5 percent shareholder <sup>1</sup>  
Barry Jaffe, 20 Georgian Court, Roslyn,  
N.Y. 11576—Director, 10.5 percent  
shareholder.<sup>1</sup>

The Applicant has two classes of stock authorized: 10,000 shares of no par common (\$1.00 stated value per share) and 3 million shares of non-voting 3 percent cumulative preferred stock, \$1.00 par value per share. It will begin operations with \$1,050,000 of paid-in capital derived from the sale of 1,000 shares of common stock.

The Applicant, a Pennsylvania corporation, will conduct its operations primarily in Pennsylvania, New Jersey, New York and Delaware. It will provide assistance to qualified socially or economically disadvantaged small business concerns in various industries including, but not limited to: Restaurants; manufacturing concerns; dealers and distributors of appliances, electronics and furniture; grocery stores; taxi cabs; and, health and beauty aid establishments.

As a small business investment company under section 301(d) of the Act, the Applicant has been organized and chartered solely for the purpose of performing the functions and conducting the activities contemplated under the Act, as amended from time to time, and will provide assistance solely to small business concerns which will contribute to a well-balanced national economy by facilitating ownership in such concerns by persons whose participation in the free enterprise system is hampered because of social or economic disadvantages.

Matters involved in SBA's consideration of the Applicant include the general business reputation and character of the proposed owners and management, and the probability of successful operation of the Applicant under this management, including adequate profitability and financial soundness, in accordance with the Act and SBA Rules and Regulations.

Notice is hereby given that any person may, not later than 30 days from the date of publication of this notice, submit

<sup>1</sup> Owned jointly with spouses. Messrs. Meister, Kanterman and Jaffe along with their spouses will be the only individuals who will own in the aggregate ten percent or more of the outstanding common stock of the Applicant.

to SBA written comments on the proposed Applicant. Any such communication should be addressed to the Deputy Associate Administrator for Investment, Small Business Administration, 1441 L Street NW., Washington, D.C. 20416.

A copy of this notice shall be published in a newspaper of general circulation in Philadelphia, Pennsylvania.

(Catalog of Federal Domestic Assistance  
Program No. 59.011, Small Business  
Investment Companies)

Dated: June 6, 1984.

Robert G. Lineberry,  
*Deputy Associate Administrator for  
Investment.*

[FR Doc. 84-15746 Filed 6-11-84; 8:45 am]

BILLING CODE 8025-01-M

[Application No. 07/07-0091]

**United Missouri Capital Corp.;  
Application for License To Operate as  
a Small Business Investment Company  
(SBIC)**

Notice is hereby given of the filing of an application with the Small Business Administration (SBA) pursuant to § 107.102 of Revision 6 of the Rules and Regulations (48 FR 45014, September 30, 1983), by United Missouri Capital Corporation, 928 Grand Avenue, First Floor, Kansas City, Missouri 64108 for a license to operate as a small business investment company (SBIC) under the provisions of the Small Business Investment Act of 1958 (the Act) as amended (15 U.S.C. 661 *et seq.*) and the Rules and Regulations promulgated thereunder.

The proposed officers, directors and stockholder are:

*Name and Address, Title or  
Relationship, Percent of Ownership*

Richard C. King, 1228 West 55th, Kansas  
City, Missouri 64113—Chairman  
William J. Bolt, Jr., 6000 West 90th  
Street, Shawnee Mission, Kansas  
66207—President, Director  
Barton S. Blond, 1121 Valentine Road,  
Kansas City, Missouri 64111—  
Secretary, Director  
William M. Teiwes, 10401 Indiana,  
Kansas City, Missouri 64137—  
Treasurer, Director  
Derald J. Slagle, 6643 Woodson Drive,  
Shawnee Mission, Kansas 66202—  
Manager  
United Missouri Bank of Kansas City,  
N.A., Post Office Box 226, Kansas  
City, Missouri 64141—Shareholder,  
100 Percent

United Missouri Bancshares, Inc., owns all of the voting securities of United Missouri Bank of Kansas City, N.A., exclusive of Director's qualifying shares. The principal shareholders of United Missouri Bancshares, Inc., are Mr. William T. Kemper and Mr. R. Crosby Kemper with percentage of ownership of 11.39 and 18.38 respectively.

The Applicant will begin operations with a capitalization of \$2,505,000 and will be a source of equity capital and long term loan funds for qualified small business concerns.

Matters involved in SBA's consideration of the application include the general business reputation and character of the proposed owners and management, and the probability of successful operations of the new company under their management, including adequate profitability and financial soundness in accordance with the Act and Regulations.

Notice is further given that any person may, not later than 30 days from the date of publication of this Notice, submit written comments on the proposed SBIC to the Deputy Associate Administrator for Investment, Small Business Administration, 1441 L Street, NW., Washington, D.C. 20416.

A copy of the Notice will be published in a newspaper of general circulation in Kansas City, Missouri.

(Catalog of Federal Domestic Assistance Program No. 59.011 Small Business Investment Companies)

Dated: June 6, 1984.

Robert G. Lineberry,  
Deputy Associate Administrator for Investment.

(FR Doc. 84-15745 Filed 6-11-84; 8:45 am)  
BILLING CODE 8025-01-M

#### Region II Advisory Council; Public Meeting

The Small Business Administration, Region II Advisory Council, located in the geographical area of New York, will hold a public meeting on Thursday, June 21, 1984, at the Jacob K. Javits Federal Building, 26 Federal Plaza, Room 2416 (24th floor), New York, New York, to discuss such matters as may be presented by members, staff of the Small Business Administration, or others present.

For further information, write or call Mervyn Shorr, Acting District Director, U.S. Small Business Administration, 26 Federal Plaza, New York, New York 10278 (212) 264-1318.

Dated: June 6, 1984.

Jean M. Nowak,  
Director, Office of Advisory Councils.

(FR Doc. 84-15740 Filed 6-11-84; 8:45 am)  
BILLING CODE 8025-01-M

#### Region V Advisory Council; Public Meeting

The Small Business Administration, Region V Advisory Council, located in the geographical area of Minneapolis/St. Paul, will hold a public meeting on June 25, 1984, at 11:30 a.m. at the Federal Reserve Bank, 250 Marquette Avenue, Minneapolis, Minnesota, to discuss such matters as may be presented by the members, staff of the Small Business Administration, or others present.

For further information, write or call Celso C. Moreno, District Director, U.S. Small Business Administration, 610-Butler Square, 100 North Sixth Street, Minneapolis, MN 55403, 612/349-3530.

Dated: June 6, 1984.

Jean M. Nowak,  
Director, Office of Advisory Councils.

(FR Doc. 84-15747 Filed 6-11-84; 8:45 am)  
BILLING CODE 8025-01-M

#### DEPARTMENT OF TRANSPORTATION

##### National Highway Traffic Safety Administration

[Docket No. IP82-5; Notice 2]

##### Toyo Kogyo Co., Ltd.; Denial of Petition for Exemption From Notice and Remedy for Inconsequential Noncompliance

This notice denies the petition by Toyo Kogyo Co., Ltd. of Hiroshima, Japan, to be exempted from the notification and remedy requirements of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1381 *et seq.*) for an apparent noncompliance with 49 CFR 751.108, *Lamps, Reflective Devices and Associated Equipment*. The basis of the petition was that the noncompliance is inconsequential as it relates to motor vehicle safety.

Notice of the petition was published on February 22, 1982, and an opportunity afforded for comment (47 FR 7792).

SAE Standard J585e, *Tail Lamps (Rear Position Lamps)*, September 1977, is incorporated by reference in Standard No. 108 as a Federal requirement for taillamps. It imposes a maximum of 20 candela on the light output of dual-compartment lamps. Petitioner informed the National Highway Traffic Safety Administration that when the Canadian Government tested six of its taillamps to this requirement, all six lamps exceeded

the maximum with values ranging from a low of 21.4 candela to a high of 27.6 candela. Toyo Kogyo accepted these tests as indicating a failure of the lamps to meet Canadian requirements which, for this aspect of lighting performance, are identical to U.S. requirements. The taillamps were used on about 87,000 Mazda GLC passenger cars, both 1981 and 1982 models. The causes of the excessive readings appear to be improper filament location and a defective inner lens. Because Standard No. 108 permits a maximum of 25 candela for three-compartment taillamps, Toyo Kogyo argued that the noncompliance has an inconsequential relationship to motor vehicle safety. Petitioner also cited SAE Recommended Practice J252b, *Service Performance Requirements for Motor Vehicle Lighting Devices and Components*, March 1978, which is not incorporated in Standard No. 108, but which allows a maximum intensity of up to 120 percent of J585e, i.e., up to 24 candela for the lamps in question and up to 30 candela for three-compartment lamps. As the lamps otherwise meet Standards No. 103, petitioner believed that no safety hazards is created by the noncompliance.

The sole commenter to the notice, Paul Scully, argued that the petition should be granted for three reasons. First, he pointed out that in 1979 the agency increased by 20 percent the maximum candela for single-compartment taillamps, from 15 to 18. Mr. Scully contended that "simple logic" indicates that a 20 percent increase for two- and three-compartment lamps would also be appropriate and thus Mazda's noncompliance is inconsequential. However, the agency's decision whether to permit increased candela for multi-compartment lamps was not the subject of the 1979 rulemaking, as Mr. Scully noted, nor is it the subject of this petition. Mr. Scully's inference that because single-compartment lamps were permitted an increase in candela multi-compartment lamps would also have been is without foundation. The issue here is not what action the agency might have taken were a petition for rulemaking submitted, but instead is whether a noncompliance with an existing standard adversely affects safety. As discussed below, the agency believes the noncompliance does have negative safety effects.

Mr. Scully's second and third arguments for granting the petition were that taillamp outputs exceeded the then-permitted 15 candela for passenger cars and side-by-side taillamps on large



trucks can reach 36 candela, and both occurrences have not resulted in safety problems. The agency does not find these arguments convincing. First, the precise relationship between increased candela and number of accidents is difficult, if not impossible, to ascertain through accident data. Instead, laboratory or experimental tests are the preferred method to gauge driver reaction. And in such studies, the greater the ratio of stop to tail lamps, the faster the driver's reaction time to the braking of a preceding vehicle is noticed. Second, the commenter simply presents the agency with a nonintuitive conclusion (based on the preceding type of study) without submitting the basis for that conclusion. The agency is reluctant to take such action without receiving assurances that safety is not compromised. Finally, Mr. Scully does not suggest that the maximum candela for heavy trucks be applied to passenger cars, negating any relevance of that analogy.

In addition, the agency finds that petitioner's arguments are unpersuasive. Although Standard No. 108 does permit a maximum of 25 candela for three-compartment taillamps, the light output is spread over a greater area with the resulting brightness approximately that of a single compartment lamp. Thus, it offers a higher ratio of stoplamp to taillamp intensity than would the same candela in a two-compartment lamp, providing greater safety benefits through faster identification as a stoplamp. Citation of SAE J252b by the petitioner is irrelevant; as the title of the Recommended Practice indicates, it is a tolerance for "service performance" and was not established as a measure of safety. It is not an SAE Practice that the agency has chosen to adopt.

Furthermore, while the petition was pending, the agency learned of additional failures, involving 29 taillamps out of a population of 30. To the agency's knowledge, no other taillamp from any other manufacturer has ever exceeded intensity levels. The levels of noncompliance are not trivial but exceed the standard's maximum value by more than 50 percent in some instances; more than one-third of the lamps tested exceeded the maximum by at least 20 percent. The safety problem presented by excessive intensity is the possibility of confusion with the stop lamp signal, whose values are close to those of the noncomplying taillamps. On the Mazda, these lamps are in a common housing using a common dual filament bulb, raising the possibility that the taillamp may be perceived as a stop lamp, or that the stop signal will be less

noticeable when activated. This increases the likelihood of rear end collisions. Such a noncompliance cannot be termed inconsequential.

Accordingly, petitioner has failed to meet its burden of persuasion that the noncompliance herein described is inconsequential as it relates to motor vehicle safety, and its petition is denied.

The engineer and attorney principally responsible for this notice are respectively Kevin Cavey and Taylor Vinson.

(Sec. 102, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1417); delegations of authority at 49 CFR 1.50 and 49 CFR 501.8)

Issued: June 7, 1984.

Barry Felrice,  
*Associated Administrator for Rulemaking.*

[FR Doc. 84-15653 Filed 6-11-84; 8:45 am]

BILLING CODE 4910-59-M

## UNITED STATES INFORMATION AGENCY

### Amendment to Exchange-Visitor Skills List

**SUMMARY:** Pursuant to the provisions of section 212(e) of the Immigration and Nationality Act, as amended (8 U.S.C. 1182(e)), and 22 CFR 41.65(b), the Secretary of State designated on April 25, 1972, and revised on February 10, 1978, a list of fields of specialized knowledge or skills (referred to as the Exchange-Visitor Skills List) and those countries which clearly required the services of persons engaged in one or more of such fields. Any alien who was a national or resident of one of those countries and obtained an exchange-visitor visa and/or became a participant in an Exchange-Visitor Program involving a designated field of specialized knowledge or skill after the effective date of those public notices was subject to the 2-year foreign residence (home-country physical presence) requirement of section 212(e) of said Immigration and Nationality Act as provided by said section and 22 CFR 41.65(b).

Pursuant to the provisions of Reorganization Plan No. 2 of 1977, section 217 of the United States Information Agency Authorization Act of August 24, 1982 (Pub. L. 97-241) and Executive Orders Nos. 12038 of March 27, 1978 and 12388 of October 14, 1982, the Director, United States Information Agency, hereby further revises the 1972 Exchange-Visitor Skills List, as revised in 1978. The list which follows reflects an increase in the number of groups of designated fields of specialized knowledge or skills, as well as the deletion of Cambodia, Iran and

Vietnam, and should be examined carefully and used in conjunction with the two prior existing lists. An extensive listing applicable to exchange visitors from the People's Republic of China, has been added to the list. There is a skills list for Afghanistan but the application of that list is suspended indefinitely.

**DATES:** In order to provide time for the dissemination of this list to Foreign Service posts abroad and to interested persons and organizations in the United States, the designations indicated below shall become effective thirty (30) days after publication in the Federal Register. Exchange visitors who entered the country prior to said effective date shall continue to be governed by the 1972 list, as amended in 1978. With regard to exchange visitors from Cambodia, Iran and Vietnam, this notice shall be retroactive, and exchange visitors from these countries who were formerly subject to the residence requirements pursuant to the skills list shall be so no longer.

**ADDRESS:** Comments and requests for further information should be addressed to: Richard L. Fruchterman, Exchange Visitor Facilitative Services Staff, Office of the General Counsel and Congressional Liaison, USIA, Suite 700, 301-4th Street, S.W., Washington, D.C. 20547. Telephone (202) 485-7976.

### Revised Skills

#### Group (1)

Fields in the Administration of Public or Public-Oriented Affairs:

- 1A. Public Administration (including, but not limited to: City Planning and Public Health)
- 1B. Public Social Administration (including, but not limited to: Welfare, Dietetics, Nutrition, Family Planning and Public Health)
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections (including, but not limited to the Administration of Justice)
- 1I. Parks and Recreation Management (including, but not limited to Wild Life Management)
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration
- 1O. Labor Union Administration

**Group (2)****Fields in the Medical Profession:**

- 2A. General Practice of Medicine (including Osteopaths who also practice medicine)
- 2B. Recognized Medical Specializations (including, but not limited to: Anesthesiology, Audiology, Dermatology, Embryology, Forensic Medicine, Hematology, Immunology, Internal Medicine, Neurological Surgery, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery, Otolaryngology, Pathology, Pediatrics, Pharmacology, and Pharmaceutics, Physical Medicine and Rehabilitation, Physiology, Plastic Surgery, Preventive Medicine, Proctology, Psychiatry and Neurology, Radiology, Speech Pathology, Sports Medicine, Surgery, Thoracic Surgery, Toxicology, Urology and Virology)
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing (including, but not limited to: registered nurses, practical nurses, physician's receptionists and medical records clerks)
- 2H. Medical Instruments and Technology.
- 2I. Dentistry
- 2J. Dental Technology,
- 2K. Optometry
- 2L. Chiropractic and Osteopathy (not including osteopathic physicians who also practice medicine)
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing (except Medicine, Osteopathy or Osteopathic Medicine, Nursing, Dentistry, Chiropractic and Optometry)
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

**Group (3)****Fields in Computer Science and Related Professions:**

- 3A. Computer Science
- 3B. Information Science and Systems Analysis
- 3C. Data Processing (including, but not limited to the use of data in analyzing census financial planning and feasibility studies)
- 3D. Computer Programming
- 3E. Computer Maintenance Technologies

**Group (4)****Fields in Engineering and Related Professions:**

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil Engineering (including Airport Engineering)
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering (including Radio Engineering)
- 4I. Energy Engineering and Technology (but not including Petroleum and Natural Gas Engineering and Technology)
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology (including, but not limited to: marine and flight engineers)
- 4M. Materials Engineering and Sciences (including, but not limited to: textiles, plastics, wood, paper and metal, but not including Metal Fabrication)
- 4N. Mechanical Engineering (including, but not limited to: systems, safety, and production engineers, and including Automatic Data Processing)
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering (including, but not limited to: light and sound technology)
- 4R. Petroleum and Natural Gas Engineering and Technology)
- 4S. Printing and Photographic Engineering and Technology
- 4T. Surveying (including Oceanography)

**Group (5)****Fields in the Natural Sciences and Mathematics:**

- 5A. Chemistry (including all branches and specialties in Chemistry, except in Pharmacy and Chemical Engineering)
- 5B. Life Sciences (including, but not limited to: Pharmacy and Biology)
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics (including physical chemists, metallurgists and all branches and specialties in Physics)
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology (including, but not limited to physical and chemistry laboratory technicians)
- 5H. Metal Fabrication (including, but not limited to skilled metal craftsmen)
- 5I. Atmospheric-Hydrospheric

**Sciences**

- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy (including, but not limited to: veterinarians, plant pathologists, poultry and dairy scientists, animal husbandry and animal nutrition)
- 5M. Food Science and Technology
- 5N. Zoology (including Animal Behavior and Physiology)
- 5O. Forestry
- 5P. Fisheries (or other marine products)
- 5Q. Geology (including all branches and specialties, e.g., Oceanology and all branches of Applied Geology and including geophysicists and geochemists)
- 5R. Hydrology (including, but not limited to Water Pollution)
- 5S. Ecology and Environmental Protection (including Conservation)
- 5T. Desalinization
- 5U. Population Studies

**Group (6)****Fields in the Social Sciences:**

- 6A. Sociology (except Economics and including Criminology)
- 6B. Psychology (including, but not limited to Psychometrics and Psychobiology)
- 6C. History (including Art History)
- 6D. Philosophy (including Humanities)
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics (including, but not limited to International Relations)
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts (including, but not limited to Music, Theater, Sculpture and Photography)
- 6L. Estate management
- 6M. Linguistics
- 6N. Law (including Judicature and all branches and specialties in the practice of Law, except in Law Enforcement)
- 6O. Religion (including, but not limited to Ministry)

**Group (7)****Fields in Education:**

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching (including, but not limited to Kindergartens and Nursery Schools)
- 7D. Secondary School Teaching (including, but not limited to Remedial Teaching and Teaching of

- English as a Foreign Language)  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and technology (except Agriculture)  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature (including Foreign Language Education)  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation (including, but not limited to Coaching)  
 7N. Teaching in Medical Schools (including, but not limited to lecturers)  
 7O. Teaching in Law Schools (including, but not limited to lecturers)  
 7P. Career Guidance and Counselling

*Group (8)*

Fields in Communication, Transport, and Construction Professions and Skills:

- 8A. Journalism (including, but not limited to editors and reporters and including text-book writers, interpreters and translators)  
 8B. Communication Media (including Television and Film)  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting (including, but not limited to Airline Piloting)  
 8F. Merchant Marine  
 8G. Architecture (including marine Architecture)  
 8H. Construction (including, but not limited to builders, but not including skilled and unskilled laborers)  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

Fields in Business:

- 9A. Industrial and Business Administration and Management (including, but not limited to programmers), and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and

- Planning (including Rural Development)  
 9F. Economic Information Analysis (including, but not limited to Management Studies)  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9J. Insurance (including actuaries)  
 9K. Administration of Financial Institutions (including, but not limited to: Savings and Loan Organizations and Credit Unions)  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

Field of Library Science:

- 10A. Library Science (including, but not limited to Electric Data Storage and Retrieval)

## Afghanistan

*Group (1)*

- 1A. Public Administration  
 1B. Public Social Administration  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1M. Technical or vocational School Administration  
 1N. Hospital Administration

*Group (2)*

- 2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2G. Nursing  
 2H. Medical Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2N. All Therapies, Prosthetics and Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4D. Civil Engineering  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4N. Mechanical Engineering  
 4O. Mining and Lumbering Engineering and Technology

*Group (5)*

- 5A. Chemistry  
 5B. Life Sciences  
 5D. Physics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal fabrication  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy

- 5O. Forestry  
 5Q. Geology  
 5R. Hydrology  
 5T. Desalinization

*Group (6)*

- 6A. Sociology  
 6B. Psychology  
 6H. Economics  
 6N. Law

*Group (7)*

- 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Education  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7N. Teaching in Medical Schools  
 7O. Teaching in Law Schools

*Group (8)*

- 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8G. Architecture  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9N. Banking

*Group (10)*

- 10A. Library Science

## Algeria

*Group (1)*

All fields listed in part I.

*Group (2)*

- 2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2L. Chiropractic and Osteopathy  
 2N. All Therapies, Prosthetics and Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
6B. Psychology  
6H. Economics

*Group (7)*

7C. Primary School Teaching  
7D. Secondary School Teaching  
7E. Vocational and Technical School Teaching  
7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
7G. College and University Teaching in Social Sciences, Liberal Arts and Literature  
7J. Agricultural School Teaching  
7N. Teaching in Medical Schools  
7O. Teaching in Law Schools

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

**Argentina***Group (1)*

1A. Public Administration  
1B. Public Social Administration  
1J. Primary School Administration  
1M. Technical or Vocational School Administration  
1N. Hospital Administration

*Group (3)*

All fields listed in Part I.

*Group (4)*

4H. Electronic Engineering  
4L. Marine and Aeronautical Engineering and Technology

*Group (5)*

5A. Chemistry  
5B. Life Sciences  
5D. Physics  
5F. Mathematics  
5G. Laboratory Technology  
5H. Metal Fabrication  
5L. Agriculture and Agronomy  
5P. Fisheries  
5Q. Geology  
5R. Hydrology  
5T. Desalinization

*Group (9)*

9I. Statistics

**Bahamas***Group (1)*

1A. Public Administration

1B. Public Social Administration

1M. Technical or Vocational School Administration

1O. Labor Union Administration

*Group (3)*

All fields listed in Part I.

*Group (4)*

4D. Civil Engineering  
4G. Electrical Engineering  
4L. Marine and Aeronautical Engineering and Technology  
4N. Mechanical Engineering

*Group (5)*

5A. Chemistry  
5B. Life Sciences  
5D. Physics  
5F. Mathematics  
5L. Agriculture and Agronomy  
5P. Fisheries  
5Q. Geology  
5R. Hydrology  
5T. Desalinization

*Group (6)*

6A. Sociology  
6B. Psychology  
6H. Economics

*Group (7)*

7C. Primary School Teaching  
7D. Secondary School Teaching  
7E. Vocational and Technical School Teaching  
7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
7H. College and University Teaching of Education  
7J. Agricultural School Teaching  
7N. Teaching in Medical Schools  
7O. Teaching in Law Schools

*Group (8)*

8A. Journalism  
8C. Electrical Communication Technology  
8E. Airplane Piloting  
8G. Architecture  
8H. Construction

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
9I. Statistics  
9K. Administration of Financial Institutions  
9N. Banking

*Group (10)*

10A. Library Science

**Bahrain***Group (1)*

1A. Public Administration  
1B. Public Social Administration  
1K. Secondary School Administration  
1M. Technical or Vocational School Administration  
1N. Hospital Administration

*Group (2)*

2A. General Practice of Medicine  
2B. Recognized Medical Specializations  
2G. Nursing  
2H. Medical Instruments and Technology  
2I. Dentistry  
2J. Dental Technology  
2K. Optometry  
2L. Chiropractic and Osteopathy  
2N. All Therapies, Prosthetics and Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

4D. Civil Engineering  
4G. Electrical Engineering  
4H. Electronic Engineering  
4L. Marine and Aeronautical Engineering  
4N. Mechanical Engineering  
4T. Surveying

*Group (5)*

5A. Chemistry  
5B. Life Sciences  
5D. Physics  
5F. Mathematics  
5G. Laboratory Technology  
5H. Metal Fabrication  
5K. Repair and Maintenance Technology  
5L. Agriculture and Agronomy  
5P. Fisheries  
5Q. Geology  
5R. Hydrology  
5T. Desalinization

*Group (6)*

6H. Economics

*Group (7)*

7C. Primary School Teaching  
7D. Secondary School Teaching  
7E. Vocational and Technical School Teaching  
7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology

*Group (8)*

8C. Electrical Communication Technology  
8D. Radio Operation  
8E. Airplane Piloting  
8G. Architecture

8H. Construction  
8J. Drafting  
8K. Skilled Operation of Construction  
Machines

*Group (9)*

9A. Industrial and Business  
Administration and Management,  
and Project Evaluation  
9I. Statistics  
9N. Banking

*Group (10)*

10A. Library Science.

**Bangladesh**

*Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
2B. Recognized Medical  
Specializations  
2G. Nursing  
2H. Medical Instruments and  
Technology  
2I. Dentistry  
2J. Dental Technology  
2K. Optometry

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6H. Economics

*Group (7)*

7C. Primary School Teaching  
7D. Secondary School Teaching  
7E. Vocational and Technical School  
Teaching  
7G. College and University Teaching  
of Social Sciences, Liberal Arts and  
Literature  
7H. College and University Teaching  
of Education  
7J. Agricultural School Teaching  
7N. Teaching in Medical Schools

*Group (8)*

8C. Electrical Communication  
Technology  
8H. Construction  
8J. Drafting  
8K. Skilled Operation of Construction  
Machines

*Group (9)*

9I. Statistics  
9K. Administration of Financial  
Institutions  
9N. Banking

**Benin**

*Group (1)*

1A. Public Administration  
1B. Public Social Administration  
1J. Primary School Administration  
1K. Secondary School Administration  
1M. Technical or Vocational School  
Administration  
1N. Hospital Administration

*Group (2)*

2A. General Practice of Medicine  
2B. Recognized Medical  
Specializations  
2G. Nursing  
2H. Medical Instruments and  
Technology  
2I. Dentistry  
2J. Dental Technology  
2K. Optometry  
2L. Chiropractic and Osteopathy  
2N. All Therapies, Prosthetics and  
Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

4D. Civil Engineering  
4G. Electrical Engineering  
4H. Electronic Engineering  
4L. Marine and Aeronautical  
Engineering and Technology  
4N. Mechanical Engineering  
4O. Mining and Lumbering  
Engineering and Technology  
4T. Surveying

*Group (5)*

5A. Chemistry  
5B. Life Sciences  
5F. Mathematics  
5G. Laboratory Technology  
5H. Metal Fabrication  
5K. Repair and Maintenance  
Technology  
5L. Agriculture and Agronomy  
5O. Forestry  
5P. Fisheries  
5Q. Geology  
5R. Hydrology

*Group (6)*

6A. Sociology  
6B. Psychology  
6H. Economics

*Group (7)*

7C. Primary School Teaching  
7D. Secondary School Teaching  
7E. Vocational and Technical School  
Teaching  
7F. College and University Teaching  
in Natural Sciences, Mathematics,  
Engineering and Technology  
7G. College and University Teaching  
of Social Sciences, Liberal Arts and  
Literature

7H. College and University Teaching  
of Education

7J. Agricultural School Teaching  
7N. Teaching in Medical Schools  
7O. Teaching in Law Schools

*Group (8)*

8A. Journalism  
8C. Electrical Communication  
Technology  
8D. Radio Operation  
8G. Architecture  
8H. Construction  
8J. Drafting  
8K. Skilled Operation of Construction  
Machines

*Group (9)*

9A. Industrial and Business  
Administration and Management,  
and Project Evaluation  
9I. Statistics  
9K. Administration of Financial  
Institutions  
9N. Banking

*Group (10)*

10A. Library Science

**Bolivia**

*Group (1)*

1A. Public Administration  
1B. Public Social Administration  
1J. Primary School Administration  
1K. Secondary School Administration  
1M. Technical or Vocational School  
Administration  
1N. Hospital Administration

*Group (2)*

2A. General Practice of Medicine  
2B. Recognized Medical  
Specializations  
2G. Nursing  
2H. Medical Instruments and  
Technology  
2I. Dentistry  
2J. Dental Technology  
2K. Optometry  
2L. Chiropractic and Osteopathy  
2N. All Therapies, Prosthetics and  
Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

4D. Civil Engineering  
4G. Electrical Engineering  
4H. Electronic Engineering  
4N. Mechanical Engineering  
4O. Mining and Lumbering  
Engineering and Technology  
4T. Surveying

*Group (5)*

5A. Chemistry  
5B. Life Sciences

5D. Physics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6H. Economics  
 6N. Law

*Group (7)*

7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7J. Agricultural School Teaching  
 7N. Teaching in Medical Schools  
 7O. Teaching in Law Schools

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

## Botswana

*Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2G. Nursing  
 2H. Medical and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2L. Chiropractic and Osteopathy  
 2N. All Therapies, Prosthetics and Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

4D. Civil Engineering  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4N. Mechanical Engineering

4O. Mining and Lumbering Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5D. Physics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6H. Economics  
 6N. Law

*Group (7)*

7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7J. Agricultural School Teaching

*Group (8)*

8A. Journalism  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8G. Architecture  
 8H. Construction  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9N. Banking

*Group (10)*

10A. Library Science

## Brazil

*Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2G. Nursing  
 2H. Medical Instruments and Technology

2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2L. Chiropractic and Osteopathy  
 2N. All Therapies, Prosthetics and Healing

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6H. Economics  
 6O. Religion

*Group (7)*

7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7H. College and University Teaching of Education  
 7J. Agricultural School Teaching  
 7N. Teaching in Medical Schools

*Group (8)*

All fields listed in Part I.

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9I. Statistics  
 9J. Insurance

*Group (10)*

10A. Library Science

## Bulgaria

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.



*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

**Burma***Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

**Burundi***Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine

2B. Recognized Medical Specializations

2C. Veterinary Medicine

2D. Emergency Medicine

2E. Nuclear Medicine

2F. Geriatrics

2G. Nursing

2H. Medical Instruments and Technology

2I. Dentistry

2J. Dental Technology

2K. Optometry

2L. Chiropractic and Osteopathy

2N. All Therapies, Prosthetics and Healing

2O. Medical Statistics and Documentation

2P. Cancer Research

2Q. Medical Photography

2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering

4B. Cartography

4C. Chemical Engineering

4D. Civil Engineering

4E. Communication Engineering

4F. Computer Engineering and Technologies

4G. Electrical Engineering

4I. Energy Engineering and Technology

4J. Genetic and Biomedical Engineering

4K. Industrial Engineering

4L. Marine and Aeronautical Engineering and Technology

4M. Materials Engineering and Sciences

4N. Mechanical Engineering

4O. Mining and Lumbering Engineering and Technology

4P. Navigation and Transportation Engineering

4Q. Optical Engineering

4R. Petroleum and Natural Gas Engineering and Technology

4S. Printing and Photographic Engineering and Technology

4T. Surveying

*Group (5)*

5A. Chemistry

5B. Life Sciences

5C. Study of Drugs and Allied Sciences

5E. Genetics

5F. Mathematics

5G. Laboratory Technology

5H. Metal Fabrication

5I. Atmospheric-Hydrospheric Sciences

5J. Astronomy and Space Technology

5K. Repair and Maintenance Technology

5L. Agriculture and Agronomy

5M. Food Science and Technology

5N. Zoology

5O. Forestry

5Q. Geology

5R. Hydrology

5S. Ecology and Environmental Protection

*Group (6)*

6A. Sociology

6B. Psychology

6C. History

6D. Philosophy

6E. Anthropology and Archaeology

6F. Demography

6G. Government and Politics

6H. Economics

6I. Literature

6J. Instructional Media and Technology

6K. Fine Arts

6L. Estate Management

6M. Linguistics

6N. Law

*Group (7)*

All fields listed in Part I.

*Group (8)*

8A. Journalism

8B. Communication Media

8C. Electrical Communication Technology

8D. Radio Operation

8F. Merchant Marine

8G. Architecture

8H. Construction

8I. Construction-Project Management

8J. Drafting

8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation

9B. International Business and Commerce

9C. Industrial Organization

9D. Labor and Industrial Relations

9E. Economic Development and Planning

9F. Economic Information Analysis

9G. Accounting

9H. Cybernetic Technology

9I. Statistics

9K. Administration of Financial Institutions

9L. Financial Planning

9M. Operations Research

9N. Banking

9O. Farm Management and Administration

9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

**Cameroon***Group (1)*

1A. Public Administration

1B. Public Social Administration

1C. Public Social Services

1D. Sanitation

1E. Drug Abuse and Narcotics Control

1F. International Health

1G. Tourism and Travel

1H. Law Enforcement and Corrections

1I. Parks and Recreation Management

1J. Primary School Administration

1K. Secondary School Administration

1L. College, University and Higher Education Administration

1M. Technical or Vocational School Administration

## 1N. Hospital Administration

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments & Technology
- 2I. Dentistry
- 2J. Dental Technology
- 2K. Optometry
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection

*Group (6)*

- 6A. Sociology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management

## 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science
- Central African Republic

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations

9E. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

A. Library Science

Chad

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology

6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

Chile

*Group (1)*

All fields listed in Part I.

*Group (2)*

2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing

2I. Dentistry  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine

**8I. Construction-Project Management****Group (9)**

- 9A. Industrial and Business Administration and Management and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

**People's Republic of China****Group (1)**

- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration
- 1O. Labor Union Administration

**Group (2)**

- 2B. Recognized Medical specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

**Group (3)**

All fields listed in Part I.

**Group (4)**

- 4A. Aerospace Engineering
- 4C. Chemical Engineering
- 4D. Civil Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electronic Engineering

**4I. Energy Engineering and Technology**

- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology
- 4T. Surveying

**Group (5)**

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection

**Group (6)**

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6M. Linguistics
- 6N. Law

**Group (7)**

- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technology School Teaching
- 7F. Natural Sciences, Mathematics, Engineering and Technology
- 7G. Social Sciences, Liberal Arts and Literature

**7H. College and University Teaching of Education**

- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

**Group (8)**

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8G. Architecture

**Group (9)**

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9H. Cybernetic Technology
- I. Statistics

**Group (10)**

- 10A. Library Science

**Colombia****Group (1)**

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1O. Labor Union Administration

**Group (2)**

- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology

- 2I. Dentistry
- 2J. Dental Technology
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology
- 4M. Materials Engineering and Sciences
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

*Group (5)*

- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8F. Merchant Marine
- 8I. Construction-Project Management

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

*Costa Rica**Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

- 6A. Psychology

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counselling

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8F. Merchant Marine
- 8I. Construction-Project Management
- 8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

*Group (10)*

- 10A. Library Science

*Cyprus**Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

## Czechoslovakia

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control

1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

## Dominican Republic

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 6O. Religion

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation



- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counselling

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

- 10A. Library Science

**Ecuador***Group (1)*

- 1A. Public Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration

*Group (2)*

- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2H. Medical Instruments and Technology
- 2J. Dental Technology
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering

- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

*Group (5)*

- 5A. Chemistry
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8H. Construction
- 8I. Construction-Project-Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

**El Salvador***Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology

- 2I. Dentistry
- 2J. Dental Technology
- 2K. Optometry
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology
- 4M. Materials Engineering and Sciences
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

*Group (5)*

- 5A. Chemistry
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5Q. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6I. Literature

- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7H. College and University Teaching of Education
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counseling

*Group (8)*

- 8B. Communication Media
- 8E. Airplane Piloting
- 8F. Merchant Marine
- 8I. Construction-Project Management

*Group (9)*

- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Equatorial Guinea**Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operation Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

## Fiji

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration
- 1O. Labor Union Administration

*Group (2)*

- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2J. Dental Technology
- 2K. Optometry
- 2L. Chiropractic and Osteopathy
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

*Group (6)*

- All fields listed in Part I.

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7O. Teaching in Law Schools
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8E. Airplane Piloting
- 8F. Merchant Marine
- 8G. Architecture
- 8I. Construction-Project Management
- 8J. Drafting

*Group (9)*

- All fields listed in Part I.

*Group (10)*

- 10A. Library Science

## Gabon

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

- All fields listed in Part I.

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology

6K. Fine Arts  
6L. Estate Management  
6M. Linguistics

**Group (7)**

All fields listed in Part I.

**Group (8)**

8A. Journalism  
8B. Communication Media  
8C. Electrical Communication Technology  
8D. Radio Operation  
8F. Merchant Marine  
8G. Architecture  
8H. Construction  
8I. Construction-Project Management  
8J. Drafting  
8K. Skilled Operation of Construction Machines

**Group (9)**

9A. Industrial and Business Administration and Management, and Project Evaluation  
9B. International Business and Commerce  
9C. Industrial Organization  
9D. Labor and Industrial Relations  
9E. Economic Development and Planning  
9F. Economic Information Analysis  
9G. Accounting  
9H. Cybernetic Technology  
9I. Statistics  
9K. Administration of Financial Institutions  
9L. Financial Planning  
9M. Operations Research  
9N. Banking  
9O. Farm Management and Administration  
9P. Hotel and Motel Management

**Gambia****Group (1)**

1A. Public Administration  
1B. Public Social Administration  
1C. Public Social Services  
1D. Sanitation  
1E. Drug Abuse and Narcotics Control  
1F. International Health  
1G. Tourism and Travel  
1H. Law Enforcement and Corrections  
1I. Parks and Recreation Management  
1J. Primary School Administration  
1K. Secondary School Administration  
1L. College, University and Higher Education Administration  
1M. Technical or Vocational School Administration  
1N. Hospital Administration

**Group (2)**

All fields listed in Part I.

**Group (3)**

All fields listed in Part I.

**Group (4)**

All fields listed in Part I.

**Group (5)**

5A. Chemistry  
5B. Life Sciences  
5C. Study of Drugs and Allied Sciences  
5D. Physics  
5E. Genetics  
5F. Mathematics  
5G. Laboratory Technology  
5H. Metal Fabrication  
5I. Atmospheric-Hydrospheric Sciences  
5J. Astronomy and Space Technology  
5K. Repair and Maintenance Technology  
5L. Agriculture and Agronomy  
5M. Food Science and Technology  
5N. Zoology  
5O. Forestry  
5P. Fisheries  
5Q. Geology  
5R. Hydrology  
5S. Ecology and Environmental Protection  
5U. Population Studies

**Group (6)**

6A. Sociology  
6B. Psychology  
6C. History  
6D. Philosophy  
6E. Anthropology and Archaeology  
6F. Demography  
6G. Government and Politics  
6H. Economics  
6I. Literature  
6J. Instructional Media and Technology  
6K. Fine Arts  
6L. Estate Management  
6M. Linguistics  
6N. Law

**Group (7)**

All fields listed in Part I.

**Group (8)**

8A. Journalism  
8B. Communication Media  
8C. Electrical Communication Technology  
8D. Radio Operation  
8F. Merchant Marine  
8G. Architecture  
8H. Construction  
8I. Construction-Project Management  
8J. Drafting  
8K. Skilled Operation of Construction Machines

**Group (9)**

All fields listed in Part I.

**Group (10)**

10A. Library Science

**Ghana****Group (1)**

1A. Public Administration  
1B. Public Social Administration  
1C. Public Social Services  
1D. Sanitation  
1E. Drug Abuse and Narcotics Control  
1F. International Health  
1G. Tourism and Travel  
1H. Law Enforcement and Corrections  
1I. Parks and Recreation Management  
1J. Primary School Administration  
1K. Secondary School Administration  
1L. College, University and Higher Education Administration  
1M. Technical or Vocational School Administration  
1N. Hospital Administration

**Group (2)**

All fields listed in Part I.

**Group (3)**

All fields listed in Part I.

**Group (4)**

All fields listed in Part I.

**Group (5)**

5A. Chemistry  
5B. Life Sciences  
5C. Study of Drugs and Allied Sciences  
5D. Physics  
5E. Genetics  
5F. Mathematics  
5G. Laboratory Technology  
5H. Metal Fabrication  
5I. Atmospheric-Hydrospheric Sciences  
5J. Astronomy and Space Technology  
5K. Repair and Maintenance Technology  
5L. Agriculture and Agronomy  
5M. Food Science and Technology  
5N. Zoology  
5O. Forestry  
5P. Fisheries  
5Q. Geology  
5R. Hydrology  
5S. Ecology and Environmental Protection  
5U. Population Studies

**Group (6)**

6A. Sociology  
6B. Psychology  
6C. History  
6D. Philosophy  
6E. Anthropology and Archaeology  
6F. Demography  
6G. Government and Politics  
6H. Economics  
6I. Literature  
6J. Instructional Media and Technology  
6K. Fine Arts

- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

- 10A. Library Science

**Guatemala***Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1O. Labor Union Administration

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2J. Dental Technology
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering

- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology
- 4M. Materials Engineering and Sciences
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

*Group (5)*

- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5M. Food Science and Technology
- 5N. Zoology
- 5P. Fisheries
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7I. College and University Teaching of Business
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counseling

*Group (8)*

- 8B. Communication Media
- 8F. Merchant Marine
- 8I. Construction-Project Management
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation

- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

**Guinea***Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

## Guyana

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

## Haiti

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

## Honduras

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

## Hungary

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1L. College, University and Higher Education Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7B. Educational Testing, Evaluation and Measurement
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature
- 7H. College and University Teaching of Education



- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7O. Teaching in Law Schools
- 7P. Career Guidance and Counselling

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9J. Insurance
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

**India***Group (1)*

- All fields listed in Part I.

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2J. Dental Technology

- 2K. Optometry
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4M. Materials Engineering and Sciences
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering and Technology
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology
- 4T. Surveying

*Group (5)*

- 5A. Chemistry
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric and Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8I. Construction-Project Management
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

**Indonesia***Group (1)*

- All fields listed in Part I.

*Group (2)*

- All fields listed in Part I.

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

*Ivory Coast**Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2J. Dental Technology
- 2K. Optometry
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences

## 5C. Study of Drugs and Allied Sciences

## 5D. Physics

## 5E. Genetics

## 5F. Mathematics

## 5G. Laboratory Technology

## 5H. Metal Fabrication

## 5I. Atmospheric-Hydrospheric Sciences

## 5J. Astronomy and Space Technology

## 5K. Repair and Maintenance Technology

## 5L. Agriculture and Agronomy

## 5M. Food Science and Technology

## 5N. Zoology

## 5O. Forestry

## 5P. Fisheries

## 5Q. Geology

## 5R. Hydrology

## 5S. Ecology and Environmental Protection

## 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8E. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology

## 9I. Statistics

## 9K. Administration of Financial Institutions

## 9L. Financial Planning

## 9M. Operations Research

## 9N. Banking

## 9O. Farm Management and Administration

## 9P. Hotel and Motel Management

*Group (10)*

## 10A. Library Science

*Jamaica**Group (1)*

All fields listed in Part I.

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2J. Dental Technology
- 2K. Optometry
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

## 10A. Library Science

*Jordan**Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management

6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8F. Merchant Marine  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9J. Insurance  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

## Kenya

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences

5C. Study of Drugs and Allied Sciences

5D. Physics

5E. Genetics

5F. Mathematics

5G. Laboratory Technology

5H. Metal Fabrication

5I. Atmospheric-Hydrospheric Sciences

5J. Astronomy and Space Technology

5K. Repair and Maintenance Technology

5L. Agriculture and Agronomy

5M. Food Science and Technology

5N. Zoology

5O. Forestry

5P. Fisheries

5Q. Geology

5R. Hydrology

5S. Ecology and Environmental Protection

5U. Population Studies

*Group (6)*

6A. Sociology

6B. Psychology

6C. History

6D. Philosophy

6E. Anthropology and Archaeology

6F. Demography

6G. Government and Politics

6H. Economics

6I. Literature

6J. Instructional Media and Technology

6K. Fine Arts

6L. Estate Management

6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

8A. Journalism

8B. Communication Media

8C. Electrical Communication Technology

8D. Radio Operation

8F. Merchant Marine

8G. Architecture

8H. Construction

8I. Construction-Project Management

8J. Drafting

8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

## Korea

*Group (1)*

1C. Public Social Services

1D. Sanitation

1E. Drug Abuse and Narcotics Control

1F. International Health

- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1L. College, University and Higher Education Administration

*Group (2)*

- 2A. General Practice of Medicine
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

*Group (5)*

- 5A. Chemistry
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5M. Food Science and Technology
- 5N. Zoology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7I. College and University Teaching of Business
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

## Kuwait

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and Technology
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology
- 4T. Surveying

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography

6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

**Lebanon***Group (1)*

All fields listed in Part I.

*Group (2)*

2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2I. Dentistry  
 2J. Dental Technology  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8I. Construction-Project Management

*Group (9)*

All fields listed in Part I.

*Group (10)*

A. Library Science

**Lesotho***Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control

1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1O. Labor Union Administration

*Group (2)*

2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and Sciences  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics
- 6N. Law

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8F. Merchant Marine
- 8I. Construction-Project Management

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research

- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Sciences

## Liberia

*Group (1)*

- All fields listed in Part I.

*Group (2)*

- 2A. General Practice of Medicine
- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2K. Optometry
- 2L. Chiropractic and Osteopathy
- 2M. Medical Cybernetics
- 2N. All Therapies, Prosthetics and Healing
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- All fields listed in Part I.

*Group (8)*

- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- All fields listed in Part I.

*Group (10)*

- 10A. Library Science

## Libya

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

- All fields listed in Part I.

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences

5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalination  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

A. Library Science

*Malawi**Group (1)*

All fields listed in Part I.

*Group (2)*

2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2I. Dentistry  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population studies

*Group (6)*

6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management

6M. Linguistics

6N. Law

*Group (7)*

All fields listed in Part I.

*Group (8)*

8B. Communication Media  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

*Malaysia**Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.



*Group (10)*

All fields listed in Part I.

**Mali***Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management

6M. Linguistics

6N. Law

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

**Malta***Group (1)*

All fields listed in Part I.

*Group (2)*

- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2I. Dentistry
- 2J. Dental Technology
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies

4G. Electrical Engineering

4H. Electronic Engineering

4I. Energy Engineering and Technology

4J. Genetic and Biomedical Engineering

4K. Industrial Engineering

4L. Marine and Aeronautical Engineering and Technology

4M. Materials Engineering and Sciences

4N. Mechanical Engineering

4P. Navigation and Transportation Engineering

4Q. Optical Engineering

4R. Petroleum and Natural Gas Engineering and Technology

4S. Printing and Photographic Engineering and Technology

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7F. College and University Teaching in Natural Sciences, Mathematics,

Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 5N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8I. Construction-Project Management

*Group (9)*

All fields listed in Part I.

**Mauritania***Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology

4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically

Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counselling

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

**Mauritius***Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts

6L. Estate Management

6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7O. Teaching in Law Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

Morocco

*Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2M. Medical Cybernetics  
 7N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography

2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

Nepal

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control

- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1O. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology
- 4T. Surveying

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5Q. Geology
- 7R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8F. Merchant Marine
- 8I. Construction-Project Management
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

## Nicaragua

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

- 2B. Recognized Medical Specializations
- 2C. Veterinary Medicine
- 2D. Emergency Medicine
- 2E. Nuclear Medicine
- 2F. Geriatrics
- 2G. Nursing
- 2H. Medical Instruments and Technology
- 2J. Dental Technology
- 2L. Chiropractic and Osteopathy
- 2M. Medical Cybernetics
- 2O. Medical Statistics and Documentation
- 2P. Cancer Research
- 2Q. Medical Photography
- 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

*Group (5)*

All fields listed in Part I.

*Group (6)*

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7N. Teaching in Medical Schools
- 7P. Career Guidance and Counselling

*Group (8)*

- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8F. Merchant Marine
- 8G. Architecture
- 8I. Construction—Project Management
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9J. Insurance
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research

- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

## Niger

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourish and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1L. College, University and Higher Education Administration
- 1N. Hospital Administration

*Group (2)*

- All fields listed in Part I.

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management

- 6M. Linguistics

*Group (7)*

- All fields listed in Part I.

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction—Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

## Nigeria

*Group (1)*

- All fields listed in Part I.

*Group (2)*

- All fields listed in Part I.

*Group (3)*

- All fields listed in Part I.

*Group (4)*

- All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology

5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

**Oman***Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourish and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies

4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 6N. Law

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7I. College and University Teaching of Business

7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counseling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

**Pakistan***Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counseling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning

## 9F. Economic Information Analysis

## 9G. Accounting

## 9H. Cybernetic Technology

## 9I. Statistics

## 9K. Administration of Financial Institutions

## 9L. Financial Planning

## 9M. Operations Research

## 9N. Banking

## 9O. Farm Management and Administration

## 9P. Hotel and Motel Management

## Panama

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2I. Dentistry  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and

## Sciences

## 4N. Mechanical Engineering

## 4O. Mining and Lumbering Engineering and Technology

## 4P. Navigation and Transportation Engineering

## 4Q. Optical Engineering

## 4R. Petroleum and Natural Gas Engineering and Technology

## 4S. Printing and Photographic Engineering and Technology

*Group (5)*

5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

8B. Communication Media  
 8F. Merchant Marine  
 8I. Construction-Project Management

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics



9J. Insurance  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and  
 Administration  
 9P. Hotel and Motel Management

#### Papua New Guinea

##### Group (1)

1A. Public Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1L. College, University and Higher  
 Education Administration

##### Group (2)

2B. Recognized Medical  
 Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2E. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and  
 Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2M. Medical Cybernetics  
 2O. Medical Statistics and  
 Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

##### Group (3)

All fields listed in Part I.

##### Group (4)

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and  
 Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and  
 Technology  
 4J. Genetic and Biomedical  
 Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and  
 Sciences  
 4P. Navigation and Transportation  
 Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas  
 Engineering and Technology  
 4S. Printing and Photographic  
 Engineering and Technology  
 4T. Surveying

##### Group (5)

5A. Chemistry

5B. Life Sciences  
 5C. Study of Drugs and Allied  
 Sciences  
 5E. Genetics  
 5G. Laboratory Technology  
 5I. Atmospheric-Hydrospheric  
 Sciences  
 5J. Astronomy and Space Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5S. Ecology and Environmental  
 Protection  
 5U. Population Studies

##### Group (6)

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and  
 Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

##### Group (7)

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation  
 and Measurement  
 7I. College and University Teaching of  
 Business  
 7K. Education of the Physically  
 Handicapped (including Education  
 of the Mentally Retarded and  
 Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and  
 Recreation  
 7P. Career Guidance and Counselling

##### Group (8)

8B. Communication Media  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8I. Construction-Project Management  
 8J. Drafting

##### Group (9)

9A. Industrial and Business  
 Administration and Management,  
 and Project Evaluation  
 9B. International Business and  
 Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and  
 Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and

Administration  
 9P. Hotel and Motel Management

#### Paraguay

##### Group (1)

1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1L. College, University and Higher  
 Education Administration  
 1N. Hospital Administration

##### Group (2)

2B. Recognized Medical  
 Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and  
 Technology  
 2J. Dental Technology  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and  
 Healing  
 2O. Medical Statistics and  
 Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

##### Group (3)

All fields listed in Part I.

##### Group (4)

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and  
 Technologies  
 4I. Energy Engineering and  
 Technology  
 4J. Genetic and Biomedical  
 Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and  
 Sciences  
 4O. Mining and Lumbering  
 Engineering and Technology  
 4P. Navigation and Transportation  
 Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas  
 Engineering and Technology  
 4S. Printing and Photographic  
 Engineering and Technology

##### Group (5)

5C. Study of Drugs and Allied  
 Sciences  
 5E. Genetics

5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5M. Food Science and Technology  
 5N. Zoology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 O. Religion

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8F. Merchant Marine  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting

9H. Cybernetic Technology  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

## Peru

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

## Philippines

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1K. Secondary School Administration  
 1N. Hospital Administration  
 1O. Labor Union Administration

*Group (2)*

2A. General Practice  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2K. Optometry  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

*Group (10)*

10A. Library Science

**Poland****Group (1)**

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

**Group (2)**

All fields listed in Part I.

**Group (3)**

All fields listed in Part I.

**Group (4)**

All fields listed in Part I.

**Group (5)**

All fields listed in Part I.

**Group (6)**

- 6A. Sociology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

**Group (7)**

All fields listed in Part I.

**Group (8)**

- 8B. Communication Media
- 8F. Merchant Marine
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

**Group (9)**

- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics

- 9L. Financial Planning
- 9M. Operations Research
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

**Qatar****Group (1)**

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

**Group (2)**

All fields listed in Part I.

**Group (3)**

All fields listed in Part I.

**Group (4)**

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4L. Marine and Aeronautical Engineering and technology
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology

**Group (5)**

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric

**Sciences**

- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5M. Food Science and Technology
- 5N. Zoology
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5T. Desalinization
- 5U. Population Studies

**Group (6)**

- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics
- 6N. Law

**Group (7)**

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7I. College and University Teaching of Business
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

**Group (8)**

- 8B. Communication Media
- 8C. Electrical Communication
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

**Group (9)**

- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis

9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

## Romania

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

## Rwanda

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and technology  
 4N. Mechanical Engineering  
 4O. Mining and Lumbering Engineering and Technology  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

All fields listed in Part I.

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

## Saudi Arabia

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 6N. Law

*Group (7)*

All fields listed in Part I.

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

## Senegal

*Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2L. Chiropractic and Osteopathy  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

## Sierra Leone

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration

## 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business

7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counselling

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

All fields listed in Part I.

## Singapore

*Group (1)*

All fields listed in Part I.

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2K. Optometry  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology

4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)

7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7O. Teaching in Law Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9J. Insurance  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

## Somalia

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 6N. Law

*Group (7)*

All fields listed in Part I.

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation

9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

*South Africa**Group (1)*

1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1L. College, University and Higher Education Administration

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and Sciences

4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

*Group (5)*

5G. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5M. Food Science and Technology  
 5N. Zoology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counseling

*Group (8)*

8B. Communication Media  
 8F. Merchant Marine  
 8I. Construction-Project Management

*Group (9)*

9B. International Business and Commerce



9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

#### Spain

##### Group (1)

1A. Public Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration

##### Group (2)

2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

##### Group (3)

All fields listed in Part I.

##### Group (4)

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and Sciences  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

##### Group (5)

5C. Study of Drugs and Allied Sciences

5E. Genetics  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5M. Food Science and Technology  
 5N. Zoology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

##### Group (6)

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

##### Group (7)

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counseling

##### Group (8)

8B. Communication Media  
 8F. Merchant Marine  
 8I. Construction-Project Management

##### Group (9)

9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration

9P. Hotel and Motel Management

#### Sri Lanka

##### Group (1)

1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1L. College, University and Higher Education Administration

##### Group (2)

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

##### Group (3)

All fields listed in Part I.

##### Group (4)

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

##### Group (5)

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics

5F. Mathematics  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7O. Teaching in Law Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8F. Merchant Marine  
 8I. Construction-Project Management

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

**Sudan***Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology

5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 6N. Law

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

**Swaziland***Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections

- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I

*Group (3)*

All fields listed in Part I.

*Group (4)*

- 4A. Aerospace Engineering
- 4B. Cartography
- 4C. Chemical Engineering
- 4D. Civil Engineering
- 4E. Communication Engineering
- 4F. Computer Engineering and Technologies
- 4G. Electrical Engineering
- 4H. Electronic Engineering
- 4I. Energy Engineering and Technology
- 4J. Genetic and Biomedical Engineering
- 4K. Industrial Engineering
- 4M. Materials Engineering and Sciences
- 4N. Mechanical Engineering
- 4O. Mining and Lumbering Engineering and Technology
- 4P. Navigation and Transportation Engineering
- 4Q. Optical Engineering
- 4R. Petroleum and Natural Gas Engineering and Technology
- 4S. Printing and Photographic Engineering and Technology
- 4T. Surveying

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5D. Physics
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics
- 6N. Law

*Group (7)*

- 7A. Teaching of Religious Education
- 7B. Educational Testing, Evaluation and Measurement
- 7C. Primary School Teaching
- 7D. Secondary School Teaching
- 7E. Vocational and Technical School Teaching
- 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology
- 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature
- 7H. College and University Teaching of Education
- 7I. College and University Teaching of Business
- 7J. Agricultural School Teaching
- 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)
- 7L. Education of Exceptional Children
- 7M. Physical Education and Recreation
- 7P. Career Guidance and Counselling

*Group (8)*

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

*Group (9)*

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning

- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

*Group (10)*

- 10A. Library Science

## Tanzania

*Group (1)*

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health
- 1G. Tourism and Travel
- 1H. Law Enforcement and Corrections
- 1I. Parks and Recreation Management
- 1J. Primary School Administration
- 1K. Secondary School Administration
- 1L. College, University and Higher Education Administration
- 1M. Technical or Vocational School Administration
- 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology
- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

## Thailand

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

## Togo

*Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology

5S. Ecology and Environmental Protection

5T. Desalinization

5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counselling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis

9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

#### Tonga

##### Group (1)

All fields listed in Part I.

##### Group (2)

All fields listed in Part I.

##### Group (3)

All fields listed in Part I.

##### Group (4)

All fields listed in Part I.

##### Group (5)

All fields listed in Part I.

##### Group (6)

All fields listed in Part I.

##### Group (7)

All fields listed in Part I.

##### Group (8)

All fields listed in Part I.

##### Group (9)

All fields listed in Part I.

##### Group (10)

All fields listed in Part I.

#### Trinidad & Tobago

##### Group (1)

All fields listed in Part I.

##### Group (2)

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

##### Group (3)

All fields listed in Part I.

#### Group (4)

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4O. Mining and Lumbering Engineering and Technology  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

#### Group (5)

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

#### Group (6)

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

#### Group (7)

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement

7C. Primary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7O. Teaching in Law Schools  
 7P. Career Guidance and Counselling

#### Group (8)

8B. Communication Media  
 8C. Electrical Communication Technology  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

#### Group (9)

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9J. Insurance  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

#### Group (10)

10A. Library Science

#### Tunisia

##### Group (1)

All fields listed in Part I.

##### Group (2)

All fields listed in Part I.

##### Group (3)

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Turkey**Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4O. Mining and Lumbering Engineering and Technology  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology

4S. Printing and Photographic Engineering and Technology

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

8B. Communication Media  
 8F. Merchant Marine  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9J. Insurance

9L. Financial Planning  
 9M. Operations Research  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management.

*Uganda**Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

*United Arab Emirates**Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration  
 1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4D. Civil Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies

4G. Electrical Engineering  
 4H. Electronic Engineering  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Marine and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4N. Mechanical Engineering  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology  
 4T. Surveying

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics  
 6N. Law

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching

7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counselling

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8G. Architecture  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

*Upper Volta**Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel  
 1H. Law Enforcement and Corrections  
 1I. Parks and Recreation Management  
 1J. Primary School Administration  
 1K. Secondary School Administration  
 1L. College, University and Higher Education Administration

1M. Technical or Vocational School Administration  
 1N. Hospital Administration

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology  
 6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations



9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking  
 9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

*Uruguay**Group (1)*

All fields listed in Part I.

*Group (2)*

2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2M. Medical Cybernetics  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

4A. Aerospace Engineering  
 4B. Cartography  
 4C. Chemical Engineering  
 4E. Communication Engineering  
 4F. Computer Engineering and Technologies  
 4I. Energy Engineering and Technology  
 4J. Genetic and Biomedical Engineering  
 4K. Industrial Engineering  
 4L. Mariner and Aeronautical Engineering and Technology  
 4M. Materials Engineering and Sciences  
 4P. Navigation and Transportation Engineering  
 4Q. Optical Engineering  
 4R. Petroleum and Natural Gas Engineering and Technology  
 4S. Printing and Photographic Engineering and Technology

*Group (5)*

5C. Study of Drugs and Allied Sciences  
 5E. Genetics  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5L. Agriculture and Agronomy

5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5T. Desalinization  
 5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7I. College and University Teaching of Business  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7P. Career Guidance and Counseling

*Group (8)*

8A. Journalism  
 8B. Communication Media  
 8C. Electrical Communication Technology  
 8D. Radio Operation  
 8E. Airplane Piloting  
 8F. Merchant Marine  
 8H. Construction  
 8I. Construction-Project Management  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9K. Administration of Financial Institutions  
 9L. Financial Planning  
 9M. Operations Research  
 9N. Banking

9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Venezuela**Group (1)*

1A. Public Administration  
 1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health

*Group (2)*

2A. General Practice of Medicine  
 2B. Recognized Medical Specializations  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6A. Sociology  
 6B. Psychology

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology  
 6F. Demography  
 6G. Government and Politics  
 6H. Economics  
 6I. Literature  
 6J. Instructional Media and Technology  
 6K. Fine Arts  
 6L. Estate Management  
 6M. Linguistics

*Group (7)*

7A. Teaching of Religious Education  
 7B. Educational Testing, Evaluation and Measurement  
 7C. Primary School Teaching  
 7D. Secondary School Teaching  
 7E. Vocational and Technical School Teaching  
 7F. College and University Teaching in Natural Sciences, Mathematics, Engineering and Technology  
 7G. College and University Teaching of Social Sciences, Liberal Arts and Literature  
 7H. College and University Teaching of Education  
 7I. College and University Teaching of Business  
 7J. Agricultural School Teaching  
 7K. Education of the Physically Handicapped (including Education of the Mentally Retarded and Emotionally Disturbed)  
 7L. Education of Exceptional Children  
 7M. Physical Education and Recreation  
 7N. Teaching in Medical Schools  
 7P. Career Guidance and Counseling

*Group (8)*

8B. Communication Media  
 8C. Electrical Communication Technology  
 8F. Merchant Marine  
 8H. Construction  
 8I. Construction-Project Management  
 8J. Drafting  
 8K. Skilled Operation of Construction Machines

*Group (9)*

9A. Industrial and Business Administration and Management, and Project Evaluation  
 9B. International Business and Commerce  
 9C. Industrial Organization  
 9D. Labor and Industrial Relations  
 9E. Economic Development and Planning  
 9F. Economic Information Analysis  
 9G. Accounting  
 9H. Cybernetic Technology  
 9I. Statistics  
 9L. Financial Planning  
 9M. Operations Research

9O. Farm Management and Administration  
 9P. Hotel and Motel Management

*Group (10)*

10A. Library Science

Western Samoa

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

Yemen Arab Republic

*Group (1)*

All fields listed in Part I.

*Group (2)*

All fields listed in Part I.

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

All fields listed in Part I.

*Group (6)*

All fields listed in Part I.

*Group (7)*

All fields listed in Part I.

*Group (8)*

All fields listed in Part I.

*Group (9)*

All fields listed in Part I.

*Group (10)*

All fields listed in Part I.

Zaire

*Group (1)*

1B. Public Social Administration  
 1C. Public Social Services  
 1D. Sanitation  
 1E. Drug Abuse and Narcotics Control  
 1F. International Health  
 1G. Tourism and Travel

*Group (2)*

2A. General Practice of Medicine  
 2C. Veterinary Medicine  
 2D. Emergency Medicine  
 2E. Nuclear Medicine  
 2F. Geriatrics  
 2G. Nursing  
 2H. Medical Instruments and Technology  
 2I. Dentistry  
 2J. Dental Technology  
 2K. Optometry  
 2L. Chiropractic and Osteopathy  
 2M. Medical Cybernetics  
 2N. All Therapies, Prosthetics and Healing  
 2O. Medical Statistics and Documentation  
 2P. Cancer Research  
 2Q. Medical Photography  
 2R. Environmental Health

*Group (3)*

All fields listed in Part I.

*Group (4)*

All fields listed in Part I.

*Group (5)*

5A. Chemistry  
 5B. Life Sciences  
 5C. Study of Drugs and Allied Sciences  
 5D. Physics  
 5E. Genetics  
 5F. Mathematics  
 5G. Laboratory Technology  
 5H. Metal Fabrication  
 5I. Atmospheric-Hydrospheric Sciences  
 5J. Astronomy and Space Technology  
 5K. Repair and Maintenance Technology  
 5L. Agriculture and Agronomy  
 5M. Food Science and Technology  
 5N. Zoology  
 5O. Forestry  
 5P. Fisheries  
 5Q. Geology  
 5R. Hydrology  
 5S. Ecology and Environmental Protection  
 5U. Population Studies

*Group (6)*

6C. History  
 6D. Philosophy  
 6E. Anthropology and Archaeology

- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics
- 6N. Law

**Group (7)**

All fields listed in Part I.

**Group (8)**

All fields listed in Part I.

**Group (9)**

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking
- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

**Group (10)**

- 10A. Library Science

**Zambia****Group (1)**

- 1A. Public Administration
- 1B. Public Social Administration
- 1C. Public Social Services
- 1D. Sanitation
- 1E. Drug Abuse and Narcotics Control
- 1F. International Health

**Group (2)**

All fields listed in Part I.

**Group (3)**

All fields listed in Part I.

**Group (4)**

All fields listed in Part I.

**Group (5)**

- 5A. Chemistry
- 5B. Life Sciences
- 5C. Study of Drugs and Allied Sciences
- 5E. Genetics
- 5F. Mathematics
- 5G. Laboratory Technology

- 5H. Metal Fabrication
- 5I. Atmospheric-Hydrospheric Sciences
- 5J. Astronomy and Space Technology
- 5K. Repair and Maintenance Technology
- 5L. Agriculture and Agronomy
- 5M. Food Science and Technology
- 5N. Zoology
- 5O. Forestry
- 5P. Fisheries
- 5Q. Geology
- 5R. Hydrology
- 5S. Ecology and Environmental Protection
- 5U. Population Studies

**Group (6)**

- 6A. Sociology
- 6B. Psychology
- 6C. History
- 6D. Philosophy
- 6E. Anthropology and Archaeology
- 6F. Demography
- 6G. Government and Politics
- 6H. Economics
- 6I. Literature
- 6J. Instructional Media and Technology
- 6K. Fine Arts
- 6L. Estate Management
- 6M. Linguistics

**Group (7)**

All fields listed in Part I.

**Group (8)**

- 8A. Journalism
- 8B. Communication Media
- 8C. Electrical Communication Technology
- 8D. Radio Operation
- 8F. Merchant Marine
- 8G. Architecture
- 8H. Construction
- 8I. Construction-Project Management
- 8J. Drafting
- 8K. Skilled Operation of Construction Machines

**Group (9)**

- 9A. Industrial and Business Administration and Management, and Project Evaluation
- 9B. International Business and Commerce
- 9C. Industrial Organization
- 9D. Labor and Industrial Relations
- 9E. Economic Development and Planning
- 9F. Economic Information Analysis
- 9G. Accounting
- 9H. Cybernetic Technology
- 9I. Statistics
- 9K. Administration of Financial Institutions
- 9L. Financial Planning
- 9M. Operations Research
- 9N. Banking

- 9O. Farm Management and Administration
- 9P. Hotel and Motel Management

**Group (10)**

- 10A. Library Science

This Notice amends Public Notice No. 356-37, 37 FR 8099-8177 April 25, 1972 and Public Notice No. 591, 43 FR 5910-5912, February 10, 1978.

Dated: June 6, 1984.

C. Normand Poirier,  
Acting General Counsel.

[FR Doc. 84-15555 Filed 6-11-84; 8:45 am]

BILLING CODE 8230-01-M

**VETERANS ADMINISTRATION****Agency Form Under OMB Review**

**AGENCY:** Veterans Administration.

**ACTION:** Notice.

**SUMMARY:** The Veterans Administration has submitted to OMB for review the following proposals for the collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35). This document contains an extension and lists the following information: (1) The Department or Staff Office issuing the form; (2) The title of the form; (3) The agency form number, if applicable; (4) How often the form must be filled out; (5) Who will be required or asked to report; (6) An estimate of the number of responses; (7) An estimate of the total number of hours needed to fill out the form; and (8) An indication of whether section 3504(h) of Pub. L. 96-511 applies.

**ADDRESSES:** Copies of the form and supporting documents may be obtained from Patricia Viers, Agency Clearance Officer (732), Veterans Administration, 810 Vermont Avenue, NW, Washington, DC 20420, (202) 389-2146. Comments and questions about the items on this list should be directed to the VA's OMB Desk Officer, Dick Eisinger, Office of Management and Budget, 726 Jackson Place, NW, Washington, DC 20503, (202) 395-8880.

**DATES:** Comments on the information collections should be directed to the OMB Desk Officer within 60 days of this notice.

Dated: June 6, 1984.

By direction of the Administrator.

Dominick Onorato,  
Associate Deputy Administrator for  
Information Resources Management.

**Extension**

1. Department of Veterans Benefits.

2. Report of Income from Property or Business.
3. VA Form 21-4185.
4. On occasion.
5. Individuals or households.
6. 59,500 responses.
7. 29,750 hours.
8. Not applicable.

[FR Doc. 84-15656 Filed 6-11-84; 8:45 am]

BILLING CODE 8320-01-M

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**Advisory Committee on Readjustment  
Problems of Vietnam Veterans;  
Meeting**

The Veterans Administration gives notice under Pub. L. 92-463 that a meeting of the Advisory Committee on Readjustment Problems of Vietnam veterans will be held at VA Central Office, Room 119, located at 810 Vermont Avenue, N.W., Washington, D.C., on June 28, 1984. The June 28 meeting will begin at 10:00 a.m. and conclude its deliberations at 4:00 p.m. The June 29 meeting of the committee will begin at 8:00 a.m. and will adjourn at 4:30 p.m.

Both meeting will be open to the public to the seating capacity of the room. Anyone having questions concerning the meetings may contact Mr. Edward Lord, Assistant Director for Administration and Development, Readjustment Counseling Service, VA Central Office, at phone number, 202/389-3317.

Dated: June 1, 1984.

By direction of the Administrator.

Rosa Maria Fontanez,

*Committee Management Office.*

[FR Doc. 84-15657 Filed 6-11-84; 8:45 am]

BILLING CODE 8320-01-M

# Sunshine Act Meetings

Federal Register

Vol. 49, No. 114

Tuesday, June 12, 1984

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

### COMMODITY CREDIT CORPORATION

**TIME AND DATE:** 9:30 a.m., June 6, 1984.

**PLACE:** Room 200A—Administration Building, U.S. Department of Agriculture, Washington, D.C.

**STATUS:** Open.

#### MATTERS TO BE CONSIDERED:

1. Resolution—Conveyance of Interest of Commodity Credit Corporation in Real Property Acquired from Guaranty Fuels North Carolina, Inc.
2. Memorandum—Update of Commodity Credit Corporation (CCC)-Owned Inventory
3. Memorandum—Announcement for the Purchase of CCC-Owned Grain for Export to Eligible African Countries

**SUPPLEMENTARY INFORMATION:** Earliest practicable announcement was by National Press Release on June 5, 1984 (USDA No. 601-84).

#### CONTACT PERSON FOR MORE

**INFORMATION:** Richard A. Ashworth, Secretary, Commodity Credit Corporation, Post Office Box 2415, Room 3086 South Building, U.S. Department of Agriculture, Washington, D.C. 20013; telephone (202) 447-8165.

Dated: June 7, 1984.

Richard A. Ashworth,  
Secretary, Commodity Credit Corporation.

[FR Doc. 84-15814 Filed 6-8-84; 11:53 am]

BILLING CODE 3410-05-M

## 2

### FEDERAL COMMUNICATIONS COMMISSION

June 8, 1984.

FCC to hold a closed Commission meeting Friday, June 15, 1984.

The Federal Communications Commission will hold a Closed Meeting on the subjects listed below on Friday, June 15, 1984 following the Open Meeting, which is scheduled to commence at 9:30 a.m. in Room 856, at 1919 M Street, NW., Washington, D.C.

#### Agenda, Item No., and Subject

Hearing—1—Petitions for Review and Rehearing filed by Beehive Telephone Co., Inc. and a request for approval of an agreement between Beehive Telephone Co., Inc. and the Common Carrier Bureau in the Western Utah, Common Carrier proceeding (Docket 78-240).

Hearing—2—Application for Review in the Beaufort and Port Royal, South Carolina FM proceeding (Docket Nos. 80-775 and 80-776).

Hearing—3—Application for Review in the Littleton, New Hampshire FM radio comparative proceeding (BC Docket Nos. 82-629 and 82-630).

Hearing—4—Applications for Review and Motion to Intervene in the Russellville, Arkansas FM proceeding (Docket Nos. 81-551, 81-552 and 81-553).

Hearing—5—Petitions for Modification and Clarification in the RKO General, Inc. (KHJ-TV), Los Angeles, California, VHF television comparative renewal proceeding (Docket Nos. 16679-80).

These items are closed to the public because they concern Adjudicatory Matters (See 47 CFR 0.603 (j)).

The following persons are expected to attend:

Commissioners and their assistants  
Managing Director and members of his staff  
General Counsel and members of his staff  
Chief, Office of Public Affairs and members of his staff

Action by the Commission June 6, 1984. Commissioners Fowler, Chairman; Quello, Dawson, Rivera and Patrick voting to consider these items in Closed Session.

This meeting may be continued the following work day to allow the Commission to complete appropriate action.

Additional information concerning this meeting may be obtained from Sally Lawrence, FCC Public Affairs Office, telephone number (202) 254-7674.

William J. Tricarico,  
Secretary, Federal Communications Commission.

[FR Doc. 84-15880 Filed 6-8-84; 4:03 pm]

BILLING CODE 6712-01-M

## 3

### FEDERAL COMMUNICATIONS COMMISSION

June 8, 1984.

FCC to hold open Commission Meeting, Friday, June 15, 1984.

The Federal Communications Commission will hold an Open Meeting on the subjects listed below on Friday, June 15, 1984, which is scheduled to commence at 9:30 a.m., in Room 850, at 1919 M Street, NW., Washington, D.C.

#### Agenda, Item No., and Subject

General—1—Title: Request for waiver of § 15.65 *et seq.* by the Sanyo Corp. to permit the marketing of a limited reception TV receiver. Summary: This Commission will consider whether to waive its "all channel receiver" rules for a 2 channel TV receiver designed to display the video output of various TV interface devices as well as CATV Systems.

General—2—Title: Preparation for an International Telecommunications Union World Administrative Radio Conference for the Mobile Services. Summary: The Commission will consider the adoption of the First Notice of Inquiry in this proceeding. The Notice invites comments on issues that should or should not be addressed by the 1987 Mobile WARC, and requests usage data on the HF bands used by the maritime mobile service.

Private Radio—1—Title: Memorandum Opinions and Orders in the Matter of Applications of Leascom, Carrier, Big Rock and Comtran, SMR licensees seeking reversal of the Private Radio Bureau's dismissal of their applications for additional trunked radio frequencies. Summary: The Commission will consider applicants' arguments that, even though they did not meet mobile loading required during the filing period for additional channels, they are now sufficiently loaded and should have their applications included in the lottery proceedings.

Private Radio—2—Title: Notice of Proposed Rule Making in the matter of amendment of Part 90 of the Commission's rules to allow 800 MHz conventional and trunked stations operating on four specific mountaintop sites in the San Diego area to increase effective radiated power. Summary: The Commission will consider whether to propose rules allowing 800 MHz conventional and trunked stations operating on four specific mountaintop sites in San Diego, California to increase effective radiated power.

Common Carrier—1—Title: Reconsideration of Order preempting state authority to require particular calendar day studies for interstate toll settlements and jurisdictional separations purposes. Summary: The Commission will consider whether to adopt

a reconsideration order which addresses reconsideration petitions regarding an Order of the Commission which preempted the authority of states to impose calendar day study requirements in connection with interstate toll settlements and jurisdictional separations.

**Common Carrier—2—Title:** Second Report and Order detariffing embedded customer premises equipment (CPE) used in mobile telephone service and owned by American Telephone and Telegraph Company (AT&T), the Independent telephone companies, and the radio common carriers; CC Dkt. No. 81-893. Summary: The Commission will consider whether to adopt a report and order which: (1) Establishes a detariffing plan for embedded CPE used in mobile telephone service and owned by AT&T; and (2) adopts rules and requirements for the removal from tariffed service of embedded CPE used in mobile telephone service and owned by the Independent telephone companies and the radio common carriers.

**Common Carrier—3—Title:** Registration of Coin Telephones. Summary: The Commission is considering the registration of coin operated, telephone equipment under Part 68 of the Commission's Rules; a waiver by Viking Electronics, Inc. regarding registration of such coin telephones; and applications for review of an earlier Bureau decision granting registration of credit card telephones.

**Common Carrier—4—Title:** Further Notice of Proposed Rulemaking in CC Docket 83-115. Summary: The Commission will consider a proposal to allow the divested regional cellular holding companies to market cellular customer premises equipment directly.

**Common Carrier—5—Title:** Application for Transfer of Control of Various Licenses from U.S. Telephone, Inc. to United Telecommunications, Inc.; FCC File No. ENF-84-8; W-P-C-5377. Summary: The Commission will consider whether to grant United Telecommunications, Inc.'s application to acquire U.S. Telephone, Inc.

**Mass Media—1—Title:** Application for review, filed by Century Development Corporation, of an action of the Mass Media Bureau approving the application assigning the license of television station KGNS-TV, Laredo, Texas, from Gulf Coast Broadcasting Co. to Burke Broadcasting Company of Laredo, and denying Century's request that action be deferred until Century's lawsuit involving KGNS-TV is decided. Summary: The Commission will consider Century Development Corporation's application for review in which it contends that the Mass Media Bureau erred in granting the KGNS-TV assignment application. Century contends that the Bureau's grant is prejudicial to Century's lawsuit in which it is seeking specific performance.

**Mass Media—2—Title:** Amendment of Part 76, Subpart B of the Commission's Rules. Summary: Proceeding to delete the requirement for cable operators to file registration statements pursuant to § 76.12 of the Commission's Rules when they add television broadcast signals.

**Mass Media—3—Title:** Applications of CBS, Inc. and Dominion Video Satellite Inc. for modification of their construction permits to establish Interim Direct Broadcast Satellite Systems; petitions to deny those modification applications by Direct Broadcast Satellite Corporation; and objections to CBS's modification application by United States Satellite Broadcasting Company, Inc. and by Hughes Communications Galaxy, Inc. Summary: The Commission considers CBS's and Dominion's applications, pursuant to the Commission's Processing Order following the Final Acts of RARC-83. The Commission also considers the petitions and objections, which allege that the modification applications each constitute a major change in facilities, that Dominion's request violates the Commission's procedural rules, that CBS's proposal has certain anti-competitive aspects which, if granted, would be contrary to the public interest, and that neither applicant has sufficiently demonstrated due diligence in securing a construction contract necessary to justify the assignment of specific channels and orbits.

**Mass Media—4—Title:** Petition for Reconsideration and/or Clarification of: (1) The dismissal of an application for involuntary assignment of the license of standard broadcast station KLAJ, Murray, Utah to Kirk Merkley, Receiver; (2) the dismissal of an application for voluntary assignment of the license of standard broadcast station KLAJ, Murray, Utah from Kirk Merkley, Receiver, to Tri-Alpha Broadcasting Corporation; and (3) the denial of an informal objection to the renewal of the license of standard broadcast station KLAJ, Murray, Utah (File No. BR-800529UY). Summary: The Commission will consider whether the petitioners present persuasive reasons to modify its initial decision, *Kirk Merkley, Receiver*, 54 RR 2D 68 (1933), and allow the enforcement of a security agreement against the KLAJ broadcast license, based upon the state court decision in *Themy v. Seagull Enterprises, Inc.*, 595 P.2d 526 (Sup. Ct. Utah 1979).

**Mass Media—5—Title:** Application for renewal of license of station WKHK(FM), New York, New York, licensed to Riverside Broadcasting Company, Inc. Summary: The Commission considers a petition for reconsideration filed by Citizens for Jazz on WRVR, Inc., seeking re-examination of the Commission's denial of a petition to deny the license renewal application of station WKHK(FM).

**Mass Media—6—Title:** Petition for Extraordinary Relief by West Coast Media, Inc., KIFM, San Diego, California. Summary: The Commission will consider the petition for Extraordinary Relief by West Coast Media, Inc., to permit "distress sale" of KIFM, San Diego, California, or, alternatively interim operation.

**Mass Media—7—Title:** Application for Review filed by Dr. Carl Galloway, of the Bureau's ruling of February 3, 1984. Summary: The Commission will consider whether or not to reverse the Bureau's ruling with respect to a claim of news distortion.

**Mass Media—8—Title:** Application for Review of a Bureau ruling denying an "equal opportunities" complaint, filed by Stephen A. Koczak. Summary: The Mass Media Bureau found that control over a debate was an irrelevant consideration for purposes of a broadcaster's determining whether a debate is a bona fide news program. The Commission will consider whether this finding is correct.

**Mass Media—9—Title:** Petitions for reconsideration of the *Second Report and Order* in the matter of revisions of FM Assignment Policies and Procedures. Summary: The Commission will consider a *Memorandum Opinion and Order* resolving the issues raised by two petitions for reconsideration of the *Second Report and Order* in this proceeding (BC-Docket 80-130).

**Mass Media—10—Title:** Preclusion of cable television operation on frequencies assigned to the Amateur Radio Service. Summary: The Commission will consider amending its rules to preclude cable television operation on frequencies assigned to the Amateur Radio Service.

This meeting may be continued the following work day to allow the Commission to complete appropriate action.

Additional information concerning this meeting may be obtained from Sally Lawrence, FCC Public Affairs Office, telephone number (202) 254-7674.

William J. Tricarico,

Secretary, Federal Communications Commission.

(F.R. Doc. 84-15031 Filed 6-6-84; 4:53 pm)

BILLING CODE 6712-01-M

#### 4

### FEDERAL ENERGY REGULATORY COMMISSION

#### Notice

June 7, 1984.

The following notice of meeting is published pursuant to section 3(a) of the Government in the Sunshine Act (Pub. L. 94-409). 5, U.S.C. 552b:

**TIME AND DATE:** 10:00 a.m., June 14, 1984.

**PLACE:** 825 North Capitol Street, NE., Room 9305, Washington, D.C. 20426.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** Agenda.

**Note.**—Items listed on the agenda may be deleted without further notice.

**CONTACT PERSON FOR MORE INFORMATION:** Kenneth F. Plumb, Secretary, Telephone: (202) 357-8400.

This is a list of matters to be considered by the Commission. It does not include a listing of all papers relevant to the items on the agenda; however, all public documents may be examined in the Division of Public Information.

## Consent Power Agenda

793rd Meeting—June 14, 1984, Regular Meeting (10:00 a.m.)

- CAP-1: Project No. 7940-000, Steven J. Gaber
- CAP-2: Project No. 8042-000, Rubi Hydro Partners
- CAP-3: Project No. 7930-000, Larry Hensley
- CAP-4: Project No. 7931-000, Larry Hensley
- CAP-5: Project No. 7959-000, City of Soda Springs, Idaho
- CAP-6: Project No. 5545-002, Steven J. Gaber
- CAP-7: Project No. 7466-000, Oliver M. and Gail M. Cron
- CAP-8: Project No. 6758-001, Holden Village, Inc.
- CAP-9: Project No. 7878-000, Hidden Springs Project
- CAP-10: Project No. 7577-000, Gene M. Peters
- CAP-11: Project No. 7111-001, Chris Williams
- CAP-12: Project Nos. 7378-001, and 002, Renewable Resources Development and Carlson Hydroelectric Corporation  
Project Nos. 7495-001 and 002, Cook Electric, Inc.
- CAP-13: Project No. 7082-003, Fall Creek Associates  
Project No. 7134-002, Mountain West Hydro Power, Inc.  
Project No. 7176-002, Hydro Cor, Inc.  
Project No. 7028-001, Grisdale Hill Company
- CAP-14: Project No. 2890-004, Kings River Conservation District
- CAP-15: Project No. 7923-001, Magic Water Company, Inc.
- CAP-16: Project No. Omitted
- CAP-17: Project Nos. 7620-001 and 7841-001, WP, Inc.
- CAP-18: Project Nos. 7212-002, Town of Sultan, Washington
- CAP-19: Project No. 3552-004, Oakdale Irrigation District and South San Joaquin Irrigation District
- CAP-20: Project Nos. 7377-001 and 002, Renewable Resources Development and Hat Creek Corporation  
Project Nos. 7379-001 and 002, Renewable Resources Development and Slate Creek Resources, Inc.  
Project Nos. 7380-001 and 002, 7383-001 and 002, Renewable Resources Development and Carlson Hydroelectric Corporation  
Project Nos. 7381-001 and 002, Magnum Ranch, Inc.  
Project Nos. 7382-001 and 002, Renewable Resources Development, Upper Lake Creek Corp., Middle Lake Creek Corp., and Lower Lake Creek Corp.
- Project Nos. 7384-001 and 002, Renewable Resources Development and David E. Cereghino
- Project Nos. 7385-001 and 002, Renewable Resources Development
- Project Nos. 7386-001 and 002, Renewable Resources Development and Magnum Ranch, Inc.
- Project Nos. 7429-001, 002 and 003, China Cow Hydro Co., Close Quarters Inc., Double O Hydro Co., Diamond T Hydro Co.
- Project No. 7589-001, Paul S. Boyer
- CAP-21: Project No. 6470-001, Winooski Hydroelectric Company  
Project No. 6399-001, Green Mountain Power Corporation
- CAP-22: Project No. 3509-003, Little Falls Hydroelectric Associates
- CAP-23: Project Nos. 3024-002 and 003, 3029-003 and 004, the city of Richmond, Virginia
- CAP-24: Project No. 7526-001, Capitol Development Company  
Project Nos. 7666-001 and 7677-001, WP, Inc.
- CAP-25: Project No. 7668-001, WP, Inc.
- CAP-26: Project No. 4679-001, New York Power Authority
- CAP-27: Project No. 4678-001, New York Power Authority
- CAP-28: Project Nos. 2600-001 and 002, Bangor Hydro-Electric Company
- CAP-29: Project No. 3010-002, Valley Industries, Inc.  
Project No. 3012-002, Saybrooke Manufacturing Co.  
Project No. 3013-002, Quidnick Reservoir Association
- CAP-30: Project Nos. 5777-001 and 5778-001, Public Utility District No. 1 of Snohomish County, Washington
- CAP-31: Project No. 3878-001, Gregory Wilcox  
Project No. 4691-001, Fall River Rural Electric Cooperative, Inc.  
Project No. 6707-000, Graves, Arkoosh and Arkoosh  
Project Nos. 7439-000, 7440-000 and 7441-000, Michael Arkoosh
- CAP-32: Docket No. ER84-276-000, Mississippi Power & Light Company
- CAP-33: Docket No. ER84-403-000, Portland General Electric Company
- CAP-34: Docket Nos. ER81-179-021 and 022 (Phase I), Arizona Public Service Company
- CAP-35: Omitted
- CAP-36: Docket Nos. ER83-86-001, ER84-193-000 and ER84-194-000, Arkansas Power & Light Company
- CAP-37: Docket Nos. QF84-146-000 and QF84-165-000, Greenleaf Power Corporation
- CAP-38: Docket No. QF84-75-000, Turbo Gas and Electric, Ltd.
- CAP-39: Omitted
- CAP-40: Docket No. ER84-199-000, Lockhart Power Company

- CAP-41: Docket Nos. ER84-9-000 and ER84-10-000, Philadelphia Electric Company
- CAP-42: Docket No. ER84-62-000, New England Power Company
- CAP-43: Docket No. ER84-765-000, Carolina Power & Light Company
- CAP-44: Docket No. ER84-429-000, Wisconsin Power and Light Company
- CAP-45: Docket No. ER84-487-003, South Carolina Electric & Gas Company

## Consent Miscellaneous Agenda

- CAM-1: Docket No. GP84-12-000, Dorchester Gas Producing Company v. Natural Gas Pipeline Company of America
- CAM-2: Docket No. PG84-30-000, Tuthill and Barbee
- CAM-3: Docket No. RM79-76-171 (Texas-9, Addition III), High-Cost Gas Produced From Tight Formations
- CAM-4: Docket No. RM79-76-189 (Wyoming-16), High-Cost Gas Produced From Tight Formations
- CAM-5: Docket No. RM79-76-226 (Colorado-38), High-Cost Gas Produced From Tight Formations

## Consent Gas Agenda

- CAG-1: Docket No. TA84-2-59-000, Northern Natural Gas Company
- CAG-2: Docket No. TA84-2-37-005 (PGA84-4), et al., Northwest Pipeline Corporation
- CAG-3: Docket Nos. TA80-2-21-008, 009, 010 and 011, Columbia Gas Transmission Corporation, et al.
- CAG-4: Docket No. RP81-49-022, Natural Gas Pipeline Company of America
- CAG-5: Docket Nos. CP80-22-007 through 015, Northern Natural Gas Company
- CAG-6: Docket No. RP84-43-001, Southwest Gas Corporation v. Northwest Pipeline Corporation  
Docket No. RP82-58-015, ST83-700-001, ST83-701-001, ST83-702-001, ST83-703-001, ST83-704-001 and ST83-705-001, Northwest Pipeline Corporation
- CAG-7: Docket Nos. TA84-1-16-003 (PGA84-1) and GP84-17-002, National Fuel Gas Supply Corporation
- CAG-8: Docket Nos. RP83-137-008 and 007, Transcontinental Gas Pipe Line Corporation
- CAG-9: Docket Nos. TA84-1-53-002, 005, 012 and 013, KN Energy, Inc.
- CAG-10: Docket Nos. RP80-2-011 and RP83-65-003, Alabama-Tennessee Natural Gas Company
- CAG-11: Docket No. RP84-55-001, Northern Border Pipeline Company
- CAG-12: Docket No. TA84-2-37-004, Northwest Pipeline Corporation
- CAG-13: Docket Nos. RP84-20-001, 002 and 003, Panhandle Eastern Pipe Line Company
- CAG-14: Docket No. RP83-70-000, U-T Offshore System
- CAG-15: Docket No. RP84-81-000, Great Lakes Gas Transmission Company
- CAG-16: Docket No. RP74-41-003, Texas Eastern Transmission Corporation
- CAG-17: Docket No. TA84-2-43-001 (PGA84-2a), Northwest Central Pipeline Company
- CAG-18: Docket Nos. RP82-104-005, RP83-98-002, TA83-1-43-000, TA83-2-43-000, TA84-1-



43-000 and CP83-431-000, Northwest Central Pipeline Corporation  
 Docket No. RP83-42-001, Midwest Gas Users Association v. Northwest Central Pipeline Corporation  
 CAG-19: Docket Nos. RP83-82-000 and 001, Valley Gas Transmission, Inc.  
 CAG-20: Docket No. RP83-140-000, ANR Pipeline Company (Formerly Michigan Wisconsin Pipe Line Company)  
 CAG-21: Docket No. ST84-443-000, Consumer Power Company  
 CAG-22: Docket Nos. ST82-356-001 and ST82-357-001, Delhi Gas Pipeline Corporation  
 CAG-23: Docket No. ST82-267-002, Mississippi Fuel Company  
 CAG-24: Docket No. ST84-444-000, South Texas Gathering Company and Madleen Transmission Company  
 CAG-25:  
 Docket No. RI84-6-000—FERC Gas Rate Schedule No. 1, Texas Production Company  
 Docket No. RI84-7-000—FERC Gas Rate Schedule No. 1, Pinto, Inc.  
 Docket No. RI84-8-000—FERC Gas Rate Schedule No. 1, Ecce, Inc.  
 CAG-26:  
 Docket No. CI73-845-003, Cities Service Oil & Gas Corporation  
 Docket No. CI84-202-003, Phillips Oil Company  
 Docket No. CI84-203-002, Phillips Oil Company  
 CAG-27:  
 Docket No. CI84-126-001, Pogo Producing Company  
 Docket No. CI84-330-001, Amerada Hess Corporation  
 Docket No. CI84-334-001, the Louisiana Land and Exploration Company  
 Docket No. CI84-333-001, Aminoil, Inc. Corporation  
 Docket No. CI77-853-002, ANR Production Company, Energy Reserves Group, Inc.  
 Docket No. CI79-487-002, Sun Exploration and Production Company (Formerly Sun Oil Company)  
 CAG-28: Docket No. CS72-1030-001, Natural Resources Corporation, Natural Resources Corporation of Texas, and Nareco Corporation (Natural Resources Corporation)  
 CAG-29: Docket No. CI70-984-000, Texaco Inc.  
 CAG-30:  
 Docket No. CP84-119-001, Texas Eastern Transmission Corporation and ANR Pipeline Company  
 Docket No. CI69-818-002, Chevron U.S.A., Inc.  
 CAG-31: Docket Nos. CP84-294-002, 003 and 004, Northwest Pipeline Corporation  
 CAG-32: Docket Nos. CP83-186-000, 001, and 002, Southern Natural Gas Company and Northern Natural Gas Company, Division of Internorth, Inc.  
 CAG-33: Docket No. CP84-275-000, Texas Gas Transmission Corporation  
 CAG-34: Docket No. CP83-349-000, Mississippi River Transmission Corporation  
 CAG-35:  
 Docket Nos. CP83-403-001, CP83-403-003, Consolidated Gas Supply Corporation

Docket Nos. CP84-7-000, CP84-7-001, CP84-7-002 and CP84-7-003, National Fuel Gas Supply Corporation  
 Docket Nos. CP82-446-003, and CP82-446-007, Texas Eastern Transmission Corporation  
 Docket Nos. CP84-146-000, CP84-146-001, CP84-146-002 and CP84-146-003, Transcontinental Gas Pipe Line Corporation  
 Docket Nos. CP82-119-007, CP82-119-003, and CP82-119-003, Algonquin Gas Transmission Company  
 Docket No. CP84-50-000, and CP84-50-001, Granite State Gas Transmission, Inc.

#### *I. Licensed Project Matters*

##### **P-1:**

(A) Project No. 4856-001, Utah Board of Water Resources; Project No. 5037-001, Utah Power and Light Company; Project No. 6820-000, City of Duchesne, Utah; Project Nos. 6812-000, 6813-000 and 6814-000, Sheep Creek Irrigation Company

(B) Project No. 6812-000, Sheep Creek Irrigation Company

(C) Project No. 6813-000, Sheep Creek Irrigation Company

(D) Project No. 6814-000, Sheep Creek Irrigation Company

P-2: Project No. 7191-001, Orofino Falls Hydro Limited Partnership

P-3: Project Nos. 3155-003, 3156-002, 3161-001, 3163-001, 3202-002 and 3203-002, John M. Jordan

#### *II. Electric Rate Matters*

ER-1: Omitted

ER-2: Docket Nos. ER82-579-002 and ER82-579-003, Southern Company Services, Inc.

#### *Miscellaneous Agenda*

M-1: Reserved

M-2: Reserved

M-3: Omitted

M-4: Docket No. SA80-40-004, RJR Gas Pipeline Company

#### *Gas Agenda*

#### *I. Pipeline Rate Matters*

RP-1: Docket Nos. RP80-102-005 and 020, RP81-86-002 and 015, RP83-59-009 and TA84-1-7-003, Southern Natural Gas Company

RP-2: Docket Nos. TA84-1-46-004 and 005, Kentucky West Virginia Gas Company

RP-3: Docket No. RF82-33-000, et al., TA82-2-33-021, TA83-1-33-001, 002 and 007, TA 83-2-33-001 and 004, TA84-1-33-000 and 004, TA84-2-33-001, 002, 003 and 004, El Paso Natural Gas Company

RP-4: Docket No. CP84-343-000, Arkansas Louisiana Gas Company, a Division of Arkla, Inc.

RP-5: Omitted

#### *II. Producer Matters*

CI-1: Reserved

#### *III. Pipeline Certificate Matters*

##### **CP-1:**

Docket Nos. CI83-269-013 and 015 et al., Tenneco Oil Company, et al.

Docket Nos. RP83-11-019 and CP23-422-014, Transcontinental Gas Pipe Line Corporation, et al.

Docket No. CP83-592-005, Tennessee Gas Pipeline Company

Docket No. CP83-452-007, Columbia Gas Transmission

##### **CP-2:**

Docket No. CP84-21-000, Steve Bowman, et al., Complainants v. Columbia Gas Transmission Corporation, et al., Respondents

Docket No. CP84-99-000, Columbia Gas Transmission Corporation

CP-3: Docket No. CP80-17-004, Trans-Anadarko Pipeline Company

Kenneth F. Plumb,

Secretary.

[FR Doc. 84-15709 Filed 6-6-84; 10:05 am]

BILLING CODE 6717-01-M

## **5**

#### **FEDERAL RESERVE SYSTEM**

**TIME AND DATE:** 11:00 a.m., Monday, June 18, 1984.

**PLACE:** 20th Street and Constitution Avenue, NW., Washington, D.C. 20551.

**STATUS:** Closed.

#### **MATTERS TO BE CONSIDERED:**

1. Personnel actions (appointments, promotions, assignments, reassignments, and salary actions) involving individual Federal Reserve System employees.

2. Any items carried forward from a previously announced meeting.

**CONTACT PERSON FOR MORE INFORMATION:** Mr. Joseph R. Coyne, Assistant to the Board; (202) 452-3204.

Dated: June 8, 1984.

James McAfee,

Associate Secretary of the Board.

[FR Doc. 84-15709 Filed 6-6-84; 3:23 pm]

BILLING CODE 6210-01-M

## **6**

#### **FEDERAL TRADE COMMISSION**

**"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT:** FR 49, May 22, 1984, Page No. 21591.

**PREVIOUSLY ANNOUNCED TIME AND DATE OF THE MEETING:** 2:00 p.m., June 19, 1984.

**CHANGES IN THE AGENDA:** The Federal Trade Commission has cancelled its previously announced open meeting of June 19, 1984, at which it was to consider proposed rulemaking in the "Eyeglasses II" investigation.

Emily H. Rock,

Secretary.

[FR Doc. 84-15709 Filed 6-6-84; 3:22 pm]

BILLING CODE 6750-01-M

7

**FOREIGN CLAIMS SETTLEMENT COMMISSION****[F.C.S.C. Meeting Notice No. 6-84]****Announcement in Regard to Commission Meetings and Hearings**

The Foreign Claims Settlement Commission, pursuant to its regulations (45 CFR Part 504), and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice in regard to the scheduling of open meetings and oral hearings for the transaction of Commission business and other matters specified, as follows:

**Date and Time, Subject Matter**

Wed., June 20, 1984 at 10:30 a.m.: Consideration of Proposed Decisions in the Second Czechoslovakian Claims Program, Final Decisions on hearings on the record, and decisions involving claims for Vietnam prisoner of war compensation.

Subject matter listed above, not disposed of at the scheduled meeting, may be carried over to the agenda of the following meeting.

All meetings are held at the Foreign Claims Settlement Commission, 111—20th Street NW., Washington, D.C. Request for information or advance notices of intention to observe a meeting, may be directed to: Administrative Officer, Foreign Claims Settlement Commission, 111—20th Street NW., Room 409, Washington, DC 20579. Telephone: (202) 653-6155.

Dated at Washington, D.C., on June 6, 1984.

Jeanelle Matthews,  
Administrative Assistant.

[FR Doc. 84-15848 Filed 6-8-84; 3:22 pm]  
BILLING CODE 4410-01-M

8

**NATIONAL TRANSPORTATION SAFETY BOARD****[NM-84-21]**

**TIME AND DATE:** 9 a.m., Tuesday, June 19, 1984.

**PLACE:** NTSB Board Room, 8th Floor, 800 Independence Ave., SW., Washington, D.C. 20594.

**STATUS:** The first item will be open; the remaining items will be closed under Exemption 10 of the Government in the Sunshine Act.

**MATTERS TO BE CONSIDERED:**

1. *Aircraft Accident Report*—Midair Collision of a McDonnell-Douglas F-4C and a Beech D-55 Baron, near Cherry Point, North Carolina, January 9, 1983.

2. *Opinion and Order*—Administrator v. Falkner, Dockets SM-3609, SE-5815, and SE-5719; disposition of the Administrator's appeal.

3. *Opinion and Order*—Administrator v. Dopp, Docket SE-5723; disposition of the Administrator's appeal.

4. *Opinion and Order*—Petition of Wright, Docket SM-3146; disposition of the Administrator's appeal.

5. *Opinion and Order*—Administrator v. Hoyle, Docket SE-5909; disposition of the appeals of the Administrator and respondent.

**CONTACT PERSON FOR MORE INFORMATION:** Sharon Flemming, (202) 382-6525.

H. Ray Smith, Jr.,  
Federal Register Liaison Officer.

June 8, 1984.

[FR Doc. 84-15830 Filed 6-8-84; 2:20 pm]

BILLING CODE 4910-58-M

9

**NUCLEAR REGULATORY COMMISSION**

**DATE:** Week of June 11, 1984 (Revised) and Week of June 18, 1984.

**PLACE:** Commissioners' Conference Room, 1717 H Street, NW., Washington, D.C.

**STATUS:** Open and Closed.

**MATTERS TO BE DISCUSSED:**

*Monday, June 11*

2:00 p.m.

Status Report on Decommissioning Issues  
(Public Meeting) (As Announced)

*Wednesday, June 13*

10:00 a.m.

Discussion of Management-Organization  
and Internal Personnel Matters (Closed—  
Ex. 2 & 6) (Tenative) (As Announced)

*Friday, June 15*

10:00 a.m.

Briefing on USI A-44 (Station Blackout)  
and A-45 (Shutdown Decay Heat  
Removal Requirements) (Public Meeting)  
(Date change from June 12 and replaces  
"Discussion of Role of the Staff/Ex  
Parte")

2:00 p.m.

Continuation of 4/24 Discussion of Possible  
Steps to Avoid Licensing Delays to  
Include Discussion of Last Minute  
Allegations (Public Meeting) (As  
Announced)

*Week of June 18, Wednesday, June 20*

10:00 a.m.

Discussion of Role of the Staff/Ex Parte  
(Public Meeting)

2:00 p.m.

Discussion of Indian Point Adjudicatory  
Proceeding (Closed—Ex. 10)

*Thursday, June 21*

2:00 p.m.

Discussion of Management-Organization  
and Internal Personnel Matters (Closed—  
Ex. 2 & 6) (Tenative)

*Friday, June 22*

10:00 a.m.

Discussion/Possible Vote on Commission  
Concurrence on DOE Siting Guidelines  
(Public Meeting)

2:00 p.m.

NUMARC Briefing on Readiness to  
Operate (Public Meeting)

**ADDITIONAL INFORMATION:** Affirmation of "UCLA Reactor License Renewal Proceeding and Interpretation of 10 CFR 73.40(a)"; "Sua Sponte Issues raised in the Matter of Duke Power Company"; and "Shoreham—Suffolk County Motion to Clarify CLI-84-8" was held on June 7 (Public Meeting).

**TO VERIFY THE STATUS OF MEETINGS**

**CALL:** (Recording)—(202) 634-1493.

**CONTACT PERSON FOR MORE INFORMATION:** Walter Magee (202) 634-1410.

Dated: June 8, 1984.

Walter Magee,

Office of the Secretary.

[FR Doc. 84-15875 Filed 6-8-84; 3:15 pm]

BILLING CODE 7590-01-M

10

**POSTAL SERVICE****Vote to Close Meeting**

At its meeting on June 5, 1984, the Board of Governors of the United States Postal Service unanimously voted to close to public observation its meeting, scheduled for July 9, 1984, in Washington, D.C. The meeting will involve a discussion of possible strategies in anticipated collective bargaining negotiations, pursuant to chapter 12 of title 39 United States Code, involving parties to the 1981 National Agreements, between the Postal Service and four labor organizations representing certain postal employees, which are scheduled to expire in July 1984.

The meeting is expected to be attended by the following persons: Governors Babcock, Camp, McKean, Peters, Ryan, Sullivan, Voss and Waldman; Postmaster General Bolger; Deputy Postmaster General Finch; Secretary of the Board Harris; General Counsel Cox; Senior Assistant Postmaster Morris; and Counsel to the Governors Califano.

The Board is of the opinion that public access to any discussion of possible strategies that Postal Service management may decide to adopt, or the positions it may decide to assert, in any collective bargaining sessions that may take place would be likely to frustrate action to carry out those strategies or assert those positions successfully. In making this determination, the Board is aware that the effectiveness of the collective bargaining process in labor-management relations has traditionally depended on the ability of the parties to

prepare strategies and formulate positions without prematurely disclosing them to the opposite party. The public has a particular interest in the integrity of this process as it relates to the Postal Service, since the outcome of the negotiations between the Postal Service and the various postal unions, and consequently the cost, quality and efficiency of postal operations, may be adversely affected if the process is altered.

Accordingly, the Board of Governors has determined that, pursuant to section 552b(c)(3) of title 5, United States Code, and section 7.3(c) of title 39, Code of Federal Regulations, this portion of the meeting is exempt from the open meeting requirement of the Government in the Sunshine Act [5 U.S.C. 552b(b)], because it is likely to disclose information prepared for use in connection with the negotiation of collective bargaining agreements under chapter 12 of title 39, United States Code, which is specifically exempted from disclosure by section 410(c)(3) of title 39, United States Code. The Board has determined further that, pursuant to section 552b(c)(9)(B) of title 5, United States Code, and section 7.3(i) of title 39, Code of Federal Regulations, the discussion is exempt, because it is likely to disclose information the premature disclosure of which is likely to frustrate significantly proposed Postal Service

action. Finally, the Board of Governors has determined that the public has an interest in maintaining the integrity of the collective bargaining process and that the public interest does not require that the Board's discussion of its possible collective bargaining strategies and positions be open to the public.

In accordance with section 552b(f)(1) of title 5, United States Code, and section 7.6(a) of title 39, Code of Federal Regulations, the General Counsel of the United States Postal Service has certified that in his opinion the meeting to be closed may properly be closed to public observation, pursuant to sections 552b (c)(3) and (9)(B) of title 5 and section 410(c)(3) of title 39, United States Code, and sections 7.3 (c) and (i) of title 39, Code of Federal Regulations.

David F. Harris,

*Secretary.*

Paul J. Kemp,

*Alternate Liaison Officer, U.S. Postal Service.*

[FR Doc. 84-15342 Filed 6-9-84; 2:03 p.m.]

BILLING CODE 7710-12-M

11

#### DEPARTMENT OF EDUCATION.

Full Council Meeting of the National Council on Educational Research •

**MATTERS TO BE DISCUSSED:** Discussion and approval or disapproval of

proposed resolutions; Receive committee reports; Report from the National Institute of Education Director.

**DATE:** June 14, 1984 (Thursday).

**ADDRESS:** Hart Senate Office Building, Room SH-703, Capitol Hill, Washington, D.C. (Second an Constitution Ave.).

**STATUS:** Open.

**TIME:** 9:00 a.m.

Recess 11:30 a.m.-2:00 p.m.

2:00 p.m.-4:30 p.m.

#### FOR FURTHER INFORMATION CONTACT:

Renee Trent, National Council on Educational Research-Associate, 200 L St., NW... Suite 617B, Washington, D.C. 20036, 202-254-7490.

**SUPPLEMENTARY INFORMATION:** The day's agenda will include remarks from various members of the U.S. Congress, in addition to approval or disapproval of proposed resolutions, committee reports, report from the Director of the National Institute of Education.

The meeting of the Council is open to the public.

The N.C.E.R. is established under Section 405 of the General Education Provisions Act.

Dated: June 8, 1984.

James E. Hinrich, Jr.,

*Acting Executive Director, National Council on Educational Research*

[FR Doc. 84-15343 Filed 6-11-84; 10:01 a.m.]

BILLING CODE 4000-10-M



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**Tuesday**  
**June 12, 1984**

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**Part II**

**Department of  
Transportation**

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**Federal Railroad Administration**

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**49 CFR Parts 218 and 225**  
**Control of Alcohol and Drug Use in**  
**Railroad Operations; Notice of Proposed**  
**Rulemaking**

**DEPARTMENT OF TRANSPORTATION****Federal Railroad Administration****49 CFR Parts 218 and 225**

[FRA Docket No. RSOR-6, Notice No. 4]

**Control of Alcohol and Drug Use in Railroad Operations; Notice of Proposed Rulemaking****AGENCY:** Federal Railroad Administration (FRA), DOT.**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** FRA proposes rules to (i) prohibit the use of alcohol and drugs in railroad operations, (ii) require toxicological testing of employees following major accidents and incidents, (iii) require pre-employment drug urine screens for applicants for certain positions, (iv) authorize the railroads to require employees to cooperate in breath and urine tests administered by or for the railroad in certain circumstances that would be deemed to constitute just cause for testing, (v) require the railroads to institute policies that will encourage the identification of employees troubled by alcohol and drug abuse, and (vi) institute improvements in the accident/incident reporting system that will assist in better documenting the extent of alcohol and drug involvement in train accidents. These measures are designed to facilitate the control of alcohol and drug use in railroad operations and thereby prevent accidents, injuries, and property damage. FRA also describes the status of its efforts to promote voluntary alcohol and drug prevention programs and makes preliminary recommendations for private sector action.

**DATES:** (1) Written comments must be received not later than August 15, 1984. Comments received after that date will be considered to the extent possible without incurring additional expense or delay.

(2) FRA will hold public hearings on this proposal on July 6, 19, 23, and 30, 1984, at the times and places set forth below. Any person who desires to make an oral statement at the hearings is requested to notify the Docket Clerk at least five working days prior to the date of hearing, by phone or mail.

(3) FRA proposes to make the final rule effective on or about January 1, 1985.

**ADDRESSES:** (1) Written comments should be submitted to the Docket Clerk, Office of Chief Counsel, FRA, 400 Seventh Street, SW., Washington, D.C. 20590. Persons desiring to be notified that their written comments have been

received by FRA should submit a stamped, self-addressed postcard with their comments. The Docket Clerk will indicate on the postcard the date on which the comments were received and will return the card to the addressee. Written comments will be available for examination, both before and after the closing date for comments, during regular business hours in Room 5101 of the Nassif Building at the above address.

(2) The public hearing will be held at the following locations and times:

Denver, Colorado (Fri., July 6, 1984 at 9:00 a.m.)—Federal Office Building, 1961 Stout St., Room 239.  
Chicago, Illinois (Thurs., July 19, 1984 at 10:00 a.m.)—Hotel Continental, 505 North Michigan Avenue.  
New Orleans, Louisiana (Mon., July 23, 1984 at 10:00 a.m.)—U.S. Post Office Building, 701 Loyola St., Room 2186.  
Washington, D.C. (Mon., July 30, 1984 at 10:00 a.m.)—Nassif Building (DOT Headquarters), 400 Seventh St., SW., Room 2230.

Persons desiring to make oral statements at the hearing should notify the Docket Clerk by telephone (202-426-2760) or by writing to the Docket Clerk at the address above.

**FOR FURTHER INFORMATION CONTACT:** Walter Rockey, Special Assistance to the Associate Administrator for Safety, FRA, Washington, D.C. 20590 (Telephone: 202-426-0895); or Grady Cothen, Special Assistant to the Chief Counsel, FRA, Washington, D.C. 20590 (Telephone: 202-426-9416).

**SUPPLEMENTARY INFORMATION:****Introduction****Background**

The problem of alcohol use on the railroads is as old as the industry itself, and efforts to deal with it through carrier rules and enforcement began more than a century ago. In recent years the railroads have augmented traditional rule compliance efforts by establishing employee assistance programs (EAPs) designed to reach employees whose drinking is compulsive or symptomatic of other, treatable problems. However, all efforts to control the alcohol problem, and the newer problem of drug abuse, have failed to end the loss of life and property associated with alcohol and drug-impaired employees. Therefore, on June 30, 1983, FRA issued an Advance Notice of Proposed Rulemaking (ANPRM) concerning the control of alcohol and drug use in railroad operations (48 FR 30723; July 5, 1983). That notice provided background on industry efforts to deal

with the alcohol and drug problem. The ANPRM also included a discussion of—

- The Railroad Employee Assistance Project (REAP), a joint labor-management-FRA effort to define the extent of the alcohol problem on the railroads and develop recommendations for corrective action.

- The report of that project (the "REAP Report"), which compiled data from a 1978 survey of several thousand employees on seven railroads and set forth analysis and recommendations.

- Developments since the REAP Report, including an update (White Paper) published in June of 1982 and the emergence of so-called Rule G "bypass" agreements.

The ANPRM set forth a wide range of options for action to address the alcohol and drug problem and invited views on the listed options and any other approaches that might prove useful in reducing alcohol and drug-related accidents. Information and views received in response to the notice are summarized below.

**Public Proceedings on the ANPRM**

Following publication of the ANPRM on July 5, 1983, FRA conducted five days of public hearings to elicit information and views. Hearings were conducted in Atlanta, Georgia, on July 25, in Kansas City, Missouri, on July 26, in Sacramento, California, on July 28, and in Washington, D.C. on September 1 and 2, 1983. Participation in the hearing process was excellent. A total of 57 individuals or organizations were represented by oral or written submissions. FRA received oral or written viewpoints from 19 employee sources (from the national level to individual union members), 20 railroads, 5 State and local government sources (one of which expressed the views of 21 State agencies), 14 private organizations and non-rail companies, 6 individual citizens, and 3 Federal agencies. In some cases, a single organization offered multiple witnesses and also filed written submissions. FRA thanks the public witnesses, railroad labor representatives, and carrier officers who devoted considerable time and expense to the examination of this issue.

Most of the comments were received on or before the comment closing date of October 17, 1983 (see 48 FR 4590; September 29, 1983). FRA reviewed and considered all comments and related materials received for the docket through April, 1984, in preparing this NPRM. In addition, FRA has continued to place in the docket relevant background materials gathered by the FRA staff in support of this effort. A

listing of documents in the background volume of the docket is available on request from the Docket Clerk at the address shown above.

#### *General Summary of Comments Received*

For purposes of general discussion, the comments may be grouped in three categories by origin: (1) Railroad labor organizations and members, (2) railroad management representatives, and (3) other commenters. FRA has noted both the common themes expressed by members of these groups and the many variations on, and exceptions to, those themes.

Rail labor organizations and members generally acknowledged the existence of a problem, but opposed Federal regulation of this subject matter. They argued that punitive approaches would only worsen the problem of denial and cover-up associated with alcohol and drug abuse. Labor representatives urged FRA to redouble its efforts to promote EAPs, foster research, and join with labor in urging the adoption of Rule G bypass agreements.

During the ANPRM process, the national rail labor organizations (through the Railway Labor Executives' Association) of the first time took strong, formal, and public stands in favor of the adoption of bypass agreements on all the railroads. Further, the Brotherhood of Locomotive Engineers filed with its comments a recent letter to each of its General Chairmen urging them to work with their respective railroads to establish effective peer referral programs, including bypass agreements and strong employee assistance programs. These developments represent a departure for the national labor organizations, which previously had shown greater deference to their system-level officers, particularly with regard to the bypass concept. Organizations supported by unions from other industries filed comments generally supportive of the position of the rail labor organizations.

A BLE spokesman stated that his review of accident reports persuaded him that the accidents said to have been caused by alcohol or drug impairment "were not investigated with an open mind"; he believed that NTSB (and presumably FRA) conclusions were not supported in a "factual manner." However, the spokesman did not provide specific criticisms concerning the accidents listed in the docket.

With notable exceptions, the railroads also opposed Federal regulation of alcohol and drugs. Railroad representatives generally contended that the railroads are already making

major efforts to address the problem through enforcement of Rule G, EAPs, and—in some cases—awareness and training programs. However, the railroads were unanimous in requesting that FRA regulate in one limited respect: to authorize "state-of-the-art" testing of employees during their normal duties. They urge that FRA should simply authorize testing by devices of recognized reliability, without mandating the use of the devices or placing any restrictions on their use.

The railroads noted that, according to an award (decision) of the First Division, National Railroad Adjustment Board (NRAB), railroads may not require employees to submit to breath testing to determine Rule G compliance. The rationale of the ruling appears to bar compulsory body fluid testing to determine Rule G compliance, as well. (Award No. 23334, First Division; June 25, 1982). The railroads appear to believe that the NRAB award bars testing with or without cause.

The award grew out of an attempt by a major railroad to facilitate detection in the course of spot checks of crews at various points on the railroad. The railroad purchased two testing devices and, after a demonstration period, set out to cover its system with the objective of identifying Rule G violators. It was also hoped that the program would deter employees from using alcohol in connection with duty hours. All employees encountered at the particular locations were asked to breathe into a testing device. Employees objected to this method of detection as a departure from traditional observation techniques, and the dispute was ultimately submitted to the NRAB.

The NRAB ruled that the breath testing practice was not authorized by existing collective bargaining agreements and that requiring employees to submit to such testing was inconsistent with longstanding custom and practice under those agreements. The Railway Labor Act requires that changes in working conditions be made only by agreement or—failing agreement—after the exhaustion of elaborate procedures designed to promote peaceful settlements. The railroad admittedly did not seek to follow established Railway Labor Act procedures. The AAR and individual railroads argued in response to the ANPRM that the NRAB's award should be reversed or preempted by regulation.

Other commenters tended to support a strong Federal role. Recommendations of the National Transportation Safety Board, set forth in the ANPRM, are discussed more fully below. State and local officials, representatives of groups

established to work against drunk driving, and others generally supported consideration of a wide range of options from criminalization of on-the-job substance abuse, to suspension of operating employees for alcohol and drug violations, to requirements that the railroads be required to conduct random breath tests. The American Trucking Association proposed a detailed program to assure the fitness of railroad employees, which would parallel the requirements of DOT's Bureau of Motor Carrier Safety (Federal Highway Administration).

The National Association of Regulatory Utilities Commissioners reported that 18 out of 21 states responding to its survey supported Federal involvement in this area, although the states were divided as to the nature of appropriate action.

At FRA's request, the Railway Transport Committee of the Canadian Transport Commission (CTC) submitted a helpful description of Canada's regulatory program. The uniform code of operating rules of Canadian railways, codified in government regulations, includes a rule similar to "Rule G." Both employees and the railroads are responsible for observing the rule. Canada also has in effect a criminal provision prohibiting on-the-job intoxication of certain categories of railroad employees and providing for penalties of up to five years imprisonment. However, there has been only one (unsuccessful) prosecution under that provision. The Committee report that at least one Canadian railway believes the present operating rule is inadequate and the CTC intends to review the matter in the near future.

#### *Extent of Alcohol and Drug Use Problem*

A significant minority of railroad employees use alcohol and drugs in connection with railroad operations. If this phenomenon is not subject to precise quantification, neither can it be ignored. It is clear that alcohol use and drug use are sufficiently common to pose a significant safety problem.

Most of the industry participants in this rulemaking, on both the labor and management sides, have confirmed that alcohol and drug use does occur on the railroads with unacceptable frequency, despite existing rules and programs. Available information from all sources, including FRA safety investigations, suggests that the problem includes "pockets" of drinking and drug use involving multiple crew members (before and during work), sporadic cases of individual employees reporting to work impaired, and repeated drinking



and drug use by individual employees who are chemically or psychologically dependent on those substances.

Some of the REAP Report findings bear repetition in this regard. The authors made the following estimates for six study railroads that employed one-half of the railroad work force:

- 23 percent of railroad operating personnel were "problem drinkers" (actually between 14 and 24 percent, depending on the definition used).
- 5 percent of workers reported to work "very drunk" or got "very drunk" on duty at least once in the study year (1978).
- 13 percent of workers reported to work at least "a little drunk" one or more times during that period.
- 13 percent of operating employees drank while on duty at least once during the study year.

All survey data are difficult to interpret, and there may have been changes in these drinking patterns since the study year. Nevertheless, these data are acknowledged as credible indicators of a substantial problem by most carriers, the rail labor organizations, and many of their spokesmen.

Consider further that the REAP Report did not attempt to measure the abuse of drugs other than alcohol in the railroad environment. Drug abuse is a problem of national scope that touches all segments of our society, including the professions. It is not surprising that marijuana use is in increasing evidence on the railroads, since 27 percent of young adults reported current use of that substance in a National Institute on Drug Abuse survey (National Survey on Drug Abuse: Main Findings at 31 (1982)). There is also evidence that use of cocaine, estimated at 6.8% of young adults in the 1982 survey, may be growing among middle income persons such as railroad employees as a consequence of increases in supply. Drug users constitute a growing segment of the populations served by the employee assistance programs, and indications are increasing that drug use is emerging as a significant safety problem in railroad operations.

#### Safety Consequences of Alcohol and Drug Use

Alcohol and drug use result in safety risks and consequences that are unacceptable. The loss of life, limb and property from alcohol and drug-related railroad accidents has been documented, in part, over more than a decade. This pattern of human and material waste is continuing, apparently unabated. However, the documented consequences of alcohol and drug use may well be exceeded by those that

have not been recorded; and the great tragedy of alcohol and drug-related accidents and incidents is that they are, for the most part, avoidable.

Even without the benefit of regular post-accident testing, the documented problem is serious enough to mandate action. Based on an intensive review of FRA and NTSB accident reports and reports filed by the railroads with FRA, FRA has identified 34 fatalities, 66 injuries and over \$28 million in property damage (in 1983 dollars) that resulted from the errors of alcohol and drug-impaired employees in 45 train accidents and train incidents during the period 1975 through 1983. (See Table 1.) One of these accidents resulted in the release of hazardous materials and the evacuation of an entire community of 2,700 persons, some of whom were unable to return to their homes for an extended period.

The 1984 toll may set a new record. In coordination with NTSB, FRA is investigating the Wiggins, Colorado, accident that resulted in 5 fatalities, 2 injuries and an estimated \$4.4 million in railroad property damage alone. Preliminary inquiry indicates that alcohol impairment may have been a factor in the accident. In another recent accident under investigation, the presence of significant levels of barbituates has been confirmed. Possible drug involvement is also under investigation in a third accident. FRA expects that the final reports of these investigations will be available before publication of a final rule in this rulemaking.

But the documented data tell only a part of the story. Many alcohol and drug-related accidents and injuries are not so recorded under the existing reporting system. From available information, it appears highly probable that because of the latitude present in that system the railroads either fail to detect or fail to report alcohol and drug involvement in a significant number of cases. For instance, of 15 significant train accidents identified by NTSB or FRA investigations as involving alcohol or drugs, the respective railroads reported alcohol or drug involvement in only 6. The under-reporting of alcohol and drug involvement is likely even more pronounced in the vast majority of accidents which do not occasion a Federal investigation.

FRA is convinced that consistent toxicological testing of employees after major accidents would disclose numerous additional cases of alcohol and drug impairment among employees involved in human failures. A major objective of the proposed rules must be to develop this crucial information.

As explained below, FRA is also convinced that alcohol and drug-related employee fatalities in train incidents are at least twice as numerous as reflected in current statistics. In addition, although FRA has no data at all on the role of alcohol and drugs in the thousands of injuries in train incidents each year, it is likely that many are caused by alcohol and drug-impaired employees. (See, for example, the Union Pacific data on injury frequency and severity under "Bypass Agreements," below.)

The safety consequences of alcohol and drug use on the railroads are serious, but it is not the gravity of the problem alone that warrants the attention of the industry, concerned members of the public, and Government. Equally persuasive is the fact that these accidents are, for the most part, *avoidable*. Of the roughly one-quarter to one-third of railroad accidents caused by "human factors," accidents resulting from impairment of employees by alcohol and drugs are the most susceptible to prevention. Many operational errors that result in train accidents are apparently random occurrences that occur in the face of rigorous efforts to prevent the subject conduct. Although clearer operating rules, better training, more effective supervision and other countermeasures are often indicated in the wake of these accidents, these solutions are complex and often not well adapted to anticipate the particular "human failure" exhibited in the next serious accident. By contrast, attention to alcohol and drug use offers the possibility of changing behavior by removing the agent of impairment. The means are available to identify employees who are chemically or psychologically dependent on alcohol and drugs. Those who use alcohol and drugs volitionally can be deterred from bringing substances of abuse into the work place. The current focus on this problem inside and outside the railroad industry presents an important opportunity to forge a partnership for change.

#### 1. Approach to the Accident Data

In preparing this notice, FRA conducted a new and more detailed review of the accident data, including FRA and NTSB investigation reports and accident/incident reports submitted by the railroads. This review led to the refinement of the accident and employee fatality totals used in the ANPRM, the exclusion of certain accidents from consideration, and the addition of certain accidents not previously considered. In order to facilitate

examination of this refined data base, FRA is publishing an identification of accidents specifically considered in relation to this rulemaking. FRA believes that alcohol or drug-induced impairment was a significant contributing factor in each of these accidents, such that the accident would likely not have occurred, or would have been significantly reduced in severity, in the absence of such impairment.

The accident data considered in developing this notice are summarized on Table 1 and derive from the period 1975 through 1983. FRA revised its accident/incident reporting system effective January 1, 1975, to add a new cause code (510) for accidents involving "impairment of efficiency and judgment

due to drugs or alcohol." Prior to that date FRA collected information concerning the role of alcohol and drugs only in the course of its field investigations.

## 2. Train Accidents

*Investigated by FRA.* Table 2 lists significant train accidents investigated by FRA involving alcohol or drugs. (1) The table shows 15 accidents, that accounted for—

- 14 fatalities;
- 61 injuries; and
- \$12.1 million in damage to railroad equipment and facilities in noninflated dollars; or
- \$15.9 million in damage to railroad equipment and facilities in 1983 dollars,

as adjusted according to the AAR cost index.

Costs of wreck clearance, incidentals such as extra crew costs associated with detours and train delays, loss and damage of lading, other non-railroad property damage, emergency response, and environmental clean-up are not included in the estimates above.

Inclusion of some of these elements from the most costly alcohol-related accident (Livingston, Louisiana) would bring the total for investigated accidents to more than \$28 million (in 1983 dollars), but equivalent data are not available for the other accidents. (2)

BILLING CODE 4010-CG-M

TABLE 1  
SUMMARY OF ALCOHOL AND DRUG-RELATED  
RAILROAD ACCIDENTS/INCIDENTS (1975-1983\*)

		<u>Fatalities</u>	<u>Injuries</u>	<u>Damage</u> <u>(million \$)</u>
Train accidents investi- gated by FRA	15	14	61	12.1 (R.R.)
Other train accidents rept'd by the railroads	<u>10</u>	0	5	.2 (R.R.)
Total train accidents	25			
Employee casualties/train incidents**(ops only)	<u>20</u>	<u>20</u>	Not avail.	
<u>Total accidents/ incidents</u>	45			
<u>Total fatalities</u>		34		
<u>Total injuries</u>			66	
R.R. damage total				12.3
R.R. damage total (1983 dollars)				16.3
<u>Total damages</u> (1983 dollars)				28.6***

\*Based on available information, there were no relevant accidents/incidents during the final three months of 1983.

\*\*A train incident is an event involving the movement of railroad on-track equipment that results in a death, a reportable injury, or a reportable illness, but in which railroad property damage does not exceed the reporting threshold for train accidents. This listing does not include fatalities to non-operating employees.

\*\*\* Includes additional Livingston, La., damages of \$12.3 million (principally environmental clean-up) (uninflated) but not damage to lading or third party property in the other accidents.

NOTES: (1) In this listing, one reported train accident that involved minor property damage has been listed with train incidents because it was investigated by FRA as an employee fatality.

(2) This listing does not include alcohol and drug-related fatalities in non-train incidents -- i.e., in settings other than railroad operations.

Table 2  
Listing of Railroad Train Accidents Involving Alcohol And/Or  
Drug Use Investigated By  
FRA  
(January 1975 Through September 1983)

Accident Location	Date	Autopsy Yes/No	Postive Lab Result/Carrier Drugs - Alcohol	Fatalities	Injuries	Railroad Property Damage-Equipment and Maintenance of Way Estimate of Costs	Accident Descriptive
Black Rock, N.Y.	06-15-75	N/A	.16 ENGR CN/PCT	-	35	70,281	Rear End Collision (Passenger Trains)- Intoxicated engineer of of following train failed to control train in accor- dance with signal indication.
Oglesby, GA	07-28-77	No	.23 ENGR SCL	1	1	458,350	Deraillment caused by excessive speed on a restrictive curve (1 locomotive and 13 cars). Engineer operating under the influence of alcohol.
Wooster, Ohio	11-18-78	N/A	.14 ENGR Conroll	-	3	167,504	Side Collision - While under the influence of alcohol, engineer and front brakeman ignored stop signal.
Carnero, NH	12-31-78	Yes	.10 BRA	2	1	29,500	Side Collision - While under the influence of alcohol, engineer failed to control move- ment of train. Front brakeman failed to take appropriate action.

Aurora, NE	05-17-79	N/A	1 ENGR BN	-	2	56,400	Rear end collision-Engineer failed to control movement. Head brakeman failed to take appropriate action
Thousands Palms, CA	07-24-79	No	.18 ENGR SP	1	4	1,441,700	Rear end collision-Engineer failed to observe stop signal indication while under alcohol influence. Front brakeman failed to take appropriate action.
Alliance, Ohio	09-12-79	N/A	.17 ENGR Conrail	-	3	'2,416,000	Derailment caused by excessive speed through crossover. Engineer fell asleep. Others in cab failed to take appropriate action.
Royersford, PA	10-01-79	Yes	N/A Conrail	2	-	467,500	Rear end collision-Conductor operating locomotive under the influence of marijuana failed to control train movement in accordance with signal indication.
Farm, West VA (Welch)	09-06-80	Yes	2.01 ENGR NW	3	-	1,396,262	Side Collision-Fireman failed to operate train in accordance with signal indication. Engineer and brakeman failed to take appropriate action.

(See footnotes on page 4)

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Pisgah, CA	05-11-80	No	.16 BRA	ATSF	1	3	1,684,750	Rear end collision-Engineer failed to operate train in accordance with signal indication and at excessive speed. Brakeman failed to take appropriate action.
Bostic Yard, NC	04-01-81	N/A	.166 ENGR	Clinchfield	-	-	244,016	Head on collision-Engineer failed to operate train in accordance with signal indication while under the influence of alcohol.
Duncannon, PA	02-10-82	N/A	.3 ENGR	Conrail	-	4	222,600	Head-on Collision-Engineer failed to operate train in accordance with signal indication. Brakeman failed to take appropriate action.
Newport, AK	10-03-82	Yes	.08 ENGR	MP	2	2	919,000	Side collision (at end of double track)-Engineer under the influence of alcohol.
Livingston, LA	09-28-82	N/A	See Descriptive	ICG	-	-	1,669,525	Derailment (considerable hazardous commodities) Engineer and front brakeman dismissed for alcohol consumption.

Sullivan, IN 09-14-83 No .29 ENGR Rear end collision-  
 .04 BRA LN 2 823,828 Engineer failed to  
 control train. Front  
 brakeman failed to  
 take appropriate  
 action.

14	61	<u>\$12,067,216</u>
		\$15,916,704 - Expressed in 1983 Dollars

Special Notes

• In accident situations where death did not occur, the metabolism of alcohol in the body continues. Hence, delayed BAC testing reflects a lower BAC than that which actually existed at the time of the accident. Therefore, in the above listed accidents, the BAC is understated due to the length of elapsed time occurring following the accident until the testing process takes place.

• Another accident occurred on the Burlington Northern Railroad at Angora, Nebraska on June 6, 1980, which resulted in two fatalities, three injuries, and having railroad properly damage estimated at \$1,530,000. The engineer of locomotives assigned to a stalled train had coupled to a consist of helper service locomotives five miles forward from the location of the stalled train. Excessive speed and other poor judgement factors resulted in the collision of the combined locomotive consist with the stalled train. The BAC of the engineer controlling the movement was negative. The BAC of the non-controlling Engineer was .074. The responsibility of the controlling Engineer was clearly direct. The responsibility of the non-controlling engineer was subordinate. Therefore, this accident was deleted from the above listing, but is here-in highlighted to provide clarification.

• Known evacuation of area residents only occurred in the Livingston, Louisiana Accident.

1) Developed through the formal hearing and investigative process. Record also revealed that employee received treatment at a prior time for alcoholism.

2) The promoted fireman was at the operating controls. Assuming the employee had not consumed alcohol while on duty, his BAC at the time he commenced duty would have been in the .10 percent range using the average metabolic degradation rate. Further, the employee was an alcoholic and may have had a reduced tolerance for alcohol.

3) The laboratory report concluded that the BAC was sufficient to affect reflex and coordination; however, the BAC was not specified.

Prepared by Gene Cox  
 Office of Safety Enforcement  
 January 1984.



Table 3  
Listing of Railroad Train Accidents Involving Alcohol And/Or  
Drug Use Reported By Railroad Carriers But Not Investigated By  
FRA  
(January, 1975 Through September, 1983)

Accident Location	Date	Reporting Carrier	Fatalities	Injuries	Railroad Property Damage Equipment and Maintenance of Way Estimate of Costs	FRA Cause Code Primary	Contributing	Accident Type
Ramsey, WY	08--2-76	UP	-	-	54,128	510	570	Derailment
Huntington, OR	08-16-76	UP	-	-	12,000	510	550	Head on Collision
Jamaica, NY	11-12-76	LI	-	2	38,030	524	510	Side Collision
Tacoma, WA	05-22-78	MILW	-	-	5,200	533	510	Rear End Collision
Memphis, TN	10-19-79	SLSF	-	-	18,000	510	-	Rear End Collision
Morrilton, AK	02-12-80	MP	-	-	24,600	510	-	Derailment
Burnsville, West VA	03-18-80	B&O	-	-	19,000	510	-	Broken Train Collision
Carlebad/Eddy N.M.	04-23-82	ATSF	-	-	15,500	510	550	Side Collision
Toledo, Ohio	10-23-82	Conrail/ Toledo Term.	-	2	10,000	520	510	Side Collision
Provinc IL	07-13-83	CNW	-	1	37,000	528	510	Collision
			-	5	233,458			Derailment
					354,979 Expressed in 1983 Dollars			

#### Accident Code Descriptions

- 510 - Impairment of Efficiency and Judgement Due to Drugs or Alcohol
- 520 - Fixed Signal, Failure to Comply
- 524 - Hand Signal Improper
- 533 - Failure to Stop Train in Clear
- 550 - Coupling Speed Excessive
- 570 - Buffing or Slack Action Excessive
- 528 - Interlocking Signal, Failure to Comply

Prepared By Gene Cox  
Office of Safety Enforcement  
January, 1984

Table 4  
Listing of Employee Fatalities Investigated by FRA  
Which Resulted From Train and Non-train Incidents  
Involving Alcohol And/Or Drug Use

January 1975 through July 1982

Accident Location	Accident Date	Autopsy Yes	Autopsy No	Positive Lab Result	Drug Alcohol	Employee Category	Carrier	Accident Descriptive
Charlotte, NC	1-22-75	x		.10		Yard Foreman	SOU	Fell from moving freight train.
Red Desert, WY	7-02-75		x	.159		Track Laborer	UP	Struck by approaching train for which he had failed to provide personal safety clearance.
Secor, ILL	8-21-75	Unknown		.146		Switchman	TWP	Struck while in path of approaching train.
Portland, OR	8-31-75	x		.17		Yard Foreman	SP	Struck while in path of moving cars.
Denver, CO	2-15-76	x		.37		Dinning Car	DRGW	Fell beneath coal train he attempted to climb over coupling device to reach opposite side.
Baltimore, MD	9-05-76	x		.08		Inspector	UP	Fell while attempting to board locomotive.
Farmville, NC	12-22-76	x		x		Brakeman	SOU	Suffocated beneath spill of corn from overturned car. Accident caused by his failure to remove derailing device prior to movement. (type of drug - imipramine)
West Cambridge, MA	5-20-77	x		.19		Brakeman	BM	Struck while in path of approaching train.
Proctor, MN	8-04-77	x		.105		Brakeman	DMIR	Crushed between side ladder of moving locomotive and standing cars (misaligned movement).
Stemmers Run, MD	2-11-77	x		.07		Brakeman	Conrail	Struck by approaching train while he crossed track.
Green River, WY	3-18-78	x		.16		M of W Foreman	UP	Expired from smoke inhalation from bunkhouse stove.
Laramie, WY	9-11-78	x		.36		M of W Laborer	UP	Lost balance and fell beneath train while crossing between moving cars.
Denver, CO	3-23-79	x		.098		Switchman	DRGW	Fell beneath moving train while alighting from caboose.
Ranier, MN	3-27-79	x		.273		Trainman	DWP	Fell beneath caboose from which he was alighting.
Livonia, MI	4-23-79	x		.07		Brakeman	CO	Fell beneath or placed himself in path of a moving caboose.
LaJunta, CO	8-11-79	x		.133		Switchman	ATSF	Fell beneath caboose while attempting to board it.
Chicago, ILL	8-12-79	x		.14		Switchman	CNM	Ran over by approaching train while he sat on track.

Wilmington, CA	11-23-79	x	.11	Brakeman	UP	Struck by side collision with car he placed to foul during prior switching movement.
Lubbock, TX	3-23-80	x	.116	Yard Helper	ATSF	Fell beneath moving cars while crossing from one side to the other to facilitate an uncoupling. Drug type not identified.
St. Louis, MO	9-05-80	x	.111	Switchman	MP	Fell beneath moving cars he was attempting to uncouple.
E. St. Louis, ILL	11-02-80	x	.102	Clerk Messenger	NW	Operated company highway vehicle onto interstate highway against current of traffic and collided with another vehicle.
St. Helens, OR	2-11-81	x	.08	Brakeman	BN	Signaled to initiate movement and did not stand clear of it.
Hotchkiss, CO	2-19-81	x	.336	Track Patrolman	DRGW	Fell from on track inspection vehicle while it was in motion in an apparent state of unconsciousness
Calamus, OR	3-19-81	x	.38	Brakeman	SP	Alighted from locomotive into path of approaching train.
Eola, ILL	10-28-81	x	.104	Yard Clerk	BN	Placed himself in path of approaching train.
Potts Valley, VA	3-01-82	x	.36	Carpenter	NW	Fell from bridge to river. Safety belt/line not secured.
Claymont, DE	4-19-82	x	.155	Lineman	Amtrak	Electrocuted when he progressed with work prior to power being shut off.
Amherst, MA	5-26-82	x	.034	Machine Operator	CV	Drove equipment into path of approaching train.
Paxton, NE	12-10-82	x	.02	Machine Operator Helper	UP	Dismounted machine from live side into path of approaching train.
Concord, KY	4-28-83	x	.29	Trackman	CO	Struck by approaching train while inspecting track.
Villa Grove, ILL	5-03-83	x	.18	Conductor	MP	Struck while in the path of the movement of his train.
Elkhart, KS	7-07-83	x	.35	Brakeman	ATSF	Struck by overturning car for which he was to control movement.

Summary Of Employee Category And Type

Train/Engine Service --Train	20
- Engine	-
Transportation (Other) - Yard Clerk	1
Messenger	1
Dining Car Inspector	1
Maintenance of Way-- Track Patrolman	2
Track Laborer	2
Foreman	1
Carpenter	1
Lineman	1
Machine Operator	1
Machine Operator Helper	1
Grand Total	32

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Information derived from autopsies of deceased employees, breath or blood tests obtained by local authorities, and other data indicate alcohol involvement in 14 of these accidents. In one case (Royersford, Pa.) another drug—marijuana—was involved. All of the fatalities were railroad employees, but 28 of the injuries were to railroad passengers (Black Rock, N.Y.). Only one accident (Livingston, Louisiana) produced a release of hazardous materials that resulted in an evacuation, but that evacuation displaced an estimated 2,700 persons, many of them for extended periods of time. Another accident (Pisgah, California) resulted in the release of a combustible liquid from the dome of a tank car that burned for 18 hours.

All of the 15 accidents identified in Table 2 were, of course, reported by the railroads under FRA's accident/incident reporting system (49 CFR Part 225). However, even though FRA determined all 15 to have involved alcohol or drugs, the reporting railroads used code 510 to indicate primary or contributing cause only with respect to 6 of them. Stated differently, the railroads did not report alcohol or drug involvement in a majority of the accidents investigated where FRA or NTSB found such involvement. In several cases, the railroad did not employ code 510, even though an autopsy or breath test clearly showed that the operator of the train or other crew member at fault had an elevated blood alcohol concentration (BAC).

*Reported by the railroads.* The railroads are required to report to FRA all accidents involving damage to rail equipment exceeding a prescribed threshold that is adjusted every two years ("train accidents"). In addition to 6 of the train accidents investigated by FRA and summarized above, the railroads reported 10 accidents involving alcohol or drug impairment as a primary or contributing cause, resulting in:

- 5 injuries; and
- \$233,458 in railroad property damage in noninflated dollars; or
- \$354,979 in 1983 dollars.

These accidents are displayed in Table 3. Available information does not permit a breakdown of these accidents between alcohol and other drugs. However, it appears that most, if not all, involved alcohol. They were generally low speed accidents not involving significant damage, and only 3 resulted in injuries (all to employees). None involved a release of hazardous materials. In each case where code 510 was used to indicate contributing cause, the "primary" cause involved human

failure; and it is reasonable to suppose that, in most cases, the failure would not likely have occurred absent impairment of the employee responsible for the failure.

One additional train accident was reported by a railroad as involving alcohol as a contributing cause. That accident (at Proctor, Minnesota) is considered below, with employee fatalities.

*Incompleteness of train accident data.* Although the data discussed above provide confirmation that alcohol and drug use are substantial concerns that should be considered in developing accident prevention measures, FRA believes that existing information tends to paint a seriously understated picture of the problem. For the reasons discussed below, many factors militate against detection and documentation of alcohol and drug involvement after an accident. However, FRA believes that more careful investigation of accidents by the railroads, coupled with more complete reporting procedures, would result in the identification of scores of additional accidents where human failure associated with alcohol or drug impairment was a primary or contributing cause.

### 3. Employee Fatalities in Train Incidents

As shown by Table 4, a major cost of alcohol and drugs on the railroad is the loss of life in events that result directly from the operation of a railroad but do not involve significant damage to equipment (referred to as "train incidents"). The table shows fatalities in train and non-train incidents and includes all crafts of employees. Although they are displayed for information, nontrain incidents have not been specifically considered with respect to this rulemaking, since the primary thrust of the Federal Railroad Safety Act is the prevention of accidents in railroad operations.

FRA has also made the judgment, more fully discussed below, that this initial regulatory effort should concentrate on those employees who are most directly responsible for the safe movement of railroad equipment, as defined by the Hours of Service Act.

Of the 29 employee fatalities in alcohol or drug-related *train* incidents listed on Table 4, FRA determined that alcohol or drugs was a significant factor in 28 cases (excluding one case where the blood alcohol level was low). Of the 28 cases—

- 20 involved employees subject to the Hours of Service Act, of whom—

- 19 had blood alcohol concentrations (BACs) of .05 weight/volume or more at the time of their death; and

- 1 was using a prescription drug that is believed to have adversely affected his performance.

(One of the employees with an elevated blood alcohol level also had an unidentified drug in his system.) In most of these cases the employee placed himself in the path of moving equipment or slipped while attempting to mount or alight from a locomotive or car. In three cases, employees were the victims of otherwise minor collisions or derailments resulting from their actions.

*Incompleteness of the data.* FRA investigates all railroad employee fatalities, and FRA is the only Federal agency that publishes narrative reports on each such fatality (with exception of fatalities in train accidents for which NTSB publishes such reports). Table 4 shows that in all cases but one since 1975, FRA made its determination that the employee was impaired by alcohol or drugs on the basis of toxicological analyses, usually conducted as a part of an autopsy or more limited postmortem examination by local authorities.

Usually the only witnesses to these occurrences are other employees, who often will not divulge any information that they may have concerning the condition of the deceased prior to the accident. However, FRA's review of employee fatality investigation files compiled since 1977 disclosed that postmortem data was available in only one-third, or 144 cases, out of 452 "qualifying" files (other than deaths due to criminal acts, natural causes, etc.). Much of that data was fragmentary. Indeed, roughly one-quarter of autopsy reports obtained by FRA lacked laboratory analysis entirely, showed tests only for alcohol, or contained toxicological findings that were inconclusive.

However, available information does suggest the existence of a larger problem than has been documented. Of the 144 cases for which some form of report was available, employees tested positive for alcohol or drugs, with other than *de minimis* levels, in the 25 cases shown on Table 4 for the years 1977 to date (17% of employees examined). Full autopsies were conducted in 136 of the 144 fatalities, and 22 of those autopsies resulted in positive toxicological findings (16% of employees examined). FRA believes that most of the 136 full autopsies, in contrast to the 8 toxicological tests without full autopsies, were ordered without reference to any specific suspicion of alcohol or drug impairment. It is

possible to project, therefore, that *if toxicological tests were performed for all fatalities, rather than just one third, the number of employee fatalities determined to involve alcohol or drugs would be two to three times the number currently documented.*

This projection is consistent with the pattern of most employee fatalities investigated by FRA. A great many fatalities occur during switching operations under circumstances that are basically inexplicable except by reference to a safety failure by the victim of the incident. Local authorities often have little interest in requiring a postmortem examination in many cases, since the employee is commonly the only victim of his apparent negligence. Further, railroad safety may be viewed as the exclusive province of the Federal Government or other instrumentalities of State government. FRA and NTSB have generally not requested autopsies or toxicological tests except where specific information indicated alcohol or drug involvement. As discussed below, FRA proposes to revise this policy in connection with a limited, but broad-based examination of alcohol and drugs in railroad accidents.

#### The Federal Responsibility

Railroads are instrumentalities of interstate commerce and have been subject to Federal safety regulation since 1893. The Federal Railroad Safety Act both mandates the regulation of the railroad industry "as necessary" for safety and expresses a Congressional judgment that such regulation should be uniform throughout the Nation. (See sections 202 and 205 of the Act, 45 U.S.C. 431, 434.) Although railroad operations are often conducted over private rights-of-way, rather than over public highways or through public air space, those operations nevertheless have a direct and obvious impact on the safety of the communities they traverse.

*Uniform regulation.* The measures need to be undertaken to address the alcohol and drug problem must be implemented across large railroad systems that often span many states and local jurisdictions. Piecemeal regulation of this subject matter could only result in uneconomic and potentially conflicting regulatory requirements, a point recognized by the state agencies that have participated in this rulemaking.

*Regulation of other modes.* Despite the obvious need for strong Federal leadership in this area, the railroads remain the only major mode of interstate transportation for which alcohol and drug standards are not in effect. The Federal Aviation

Administration enforces specific prohibitions on alcohol and drug use for flight crews and other employees in safety-sensitive functions, as well as detailed medical standards. Similarly, the Federal Highway Administration enforces alcohol and drug rules for interstate motor carriers, supplementing the drunk and drugged driving laws of the states. Federal policy actively encourages the improvement of state programs to prevent drunk and drugged driving. (See, e.g., Pub. L. 97-364.) By contrast, there is presently no effective regulation of alcohol or drug use by railroad employees either at the Federal or the state level.

#### Existing Approaches to the Alcohol and Drug Problem

The objective of any Federal regulatory program dealing with alcohol and drug use in the occupational environment of the railroads must be to reinforce and supplement existing mechanisms, providing encouragement for those adjustments in contractual relationships that are not readily susceptible to regulatory modification. Any other approach could very well impair the effectiveness of existing operating rule enforcement and the growth of other, complementary programs.

This section will discuss the strengths and limitations of existing programs and sketch the context within which the regulatory proposals are advanced. The discussion draws on FRA's long involvement with voluntary programs and information submitted to the public docket in response to the ANPRM.

#### Enforcement of Rule G

The railroad's primary approach to prevention of alcohol and drug-related accidents is enforcement of Rule G through supervisory observations and punishment of offenders, usually by dismissal from employment. In its current form, Rule G of the Association of American Railroads Standard Code of Operating Rules provides:

The use of alcoholic beverages or narcotics by employees subject to duty is prohibited. Being under the influence of alcoholic beverages or narcotics while on duty, or their possession while on duty, is prohibited.

Virtually all railroads have such a rule in effect, and in recent years some railroads have adopted formulations of the rule that deal more explicitly with range of substances that can affect employee performance. Similar rules have been incorporated into the safety rules and other codes of conduct on many railroads, so that the policy of "Rule G" often applies to employees

performing functions other than movement of on-track equipment. At least one railroad requires a physician's certification before an employee may use (in connection with duty hours) a controlled substance or any preparation containing alcohol for therapeutic purposes.

In order to evaluate the options for change, it is necessary to describe how the railroads interpret and apply Rule G. Although Rule G formulations vary, most versions prohibit employees from—

- Drinking or using drugs ("narcotics" in the standard rule) while subject to duty or on duty;
- Possessing alcohol or drugs while on duty; and
- Being on duty while under the influence of alcohol or drugs.

*"Subject to duty."* Most Rule G formulations do not provide for a specific abstinence period prior to duty. However, the prohibition on consumption or use while "subject to duty" is generally construed to mean that employees may not consume alcohol at any time prior to a scheduled or unscheduled assignment if such use would result in *any level* of alcohol in the employee's system when the employee reports. Detectable levels of alcohol can remain in the bloodstream for 12 hours or more after a person stops drinking. Thus, under this interpretation, an employee would have to end an episode of very heavy drinking about 12 hours prior to reporting for a scheduled assignment.

The application of Rule G to operating employees in unscheduled service and to employees such as signal maintainers, who are subject to intermittent service, is particularly limiting. Generally such employees are continuously "subject to duty" once they have received their statutory rest under the Hours of Service Act. In some cases an employee who receives assignments in train or engine service from an "extra board" may wait for many hours or even days for a call advising of the employee's next assignment. The exigencies of rail operations may lead to major delays and uncertainties with respect to likely reporting times, followed by a "short call" requiring the employee to report with limited notice. Extra board employees are expected to keep themselves available and fit for duty. In some cases, this means that these employees are essentially subject to a modern-day equivalent of Prohibition. Being continuously subject to call at all times, they will technically be at liberty to drink only during vacation periods and periods of illness.

The extra board employee (or signal maintainer) who drinks while subject to duty and gets an unexpected call is faced with three alternatives, all of which are unacceptable. If the employee says he cannot report because he has taken a drink, he can be disciplined for violating Rule G and, in some cases, for failing to protect his assignment. If the employee accepts the call, he will report to work in violation of Rule G and may pose a safety risk to himself and his co-workers. If the employee falsely "marks off sick" he can be disciplined both for failing to protect his assignment and for dishonesty.

To the extent Rule G expects more of human nature than would appear to be warranted, there are some compensating practices, approved and unapproved, that mitigate the effects of the Rule. At least some railroad managers will permit employees who get "caught" by an unexpected call to "mark off" without penalty. FRA is aware that employees often encourage Co-workers who report drunk to go home "sick," and it may be that local supervision on some railroads tolerates or even condones such handling so long as it involves isolated incidents. Condoning or overlooking Rule G violations naturally weakens the force of the carrier's alcohol and drug policy to some extent, although exceptions would seem to be relatively harmless where the occasional drinker admits his error and seeks to avoid creating a safety problem.

At a more serious level, however, the practice is indicative of unchecked management discretion to excuse or punish. Such broad discretion need not be abused to create an impression of unfairness that can erode the perceived legitimacy of the rule. It is enough if employees believe such discretion is subject to unchecked abuse.

On the other hand, railroad management clearly needs a strong commitment from its work force to meet the demand of quality rail service provided 24 hours a day. If employees could "lay off" without explanation at any time, it would be impossible to maintain operations during holiday and vacation seasons. Between the extremes of effective Prohibition and unrestrained freedom to mark off lies a more plausible policy that recognizes the humanity of the worker while protecting the interest of the company and the public in assuring efficient and uninterrupted rail service. This is clearly an issue ripe for resolution through sustained and creative collective bargaining.

*Supervisory observations.* Although nominally all employees of a railroad

are responsible for assuring rule compliance (Rule E), both the railroads and employee representatives agree that it is not reasonable to expect such cooperation with respect to Rule G (at least in the absence of a bypass agreement, as discussed below). Co-workers will not report Rule G offenders, at least partially because the conventional sanction for a violation is dismissal. Therefore, Rule G is only as effective as the moral force that it carries and the program of supervisory observations designed to prevent and detect violations. Through the hearing process on the ANPRM, field inspection activities, and review of reports submitted by the railroads, FRA has learned that observation practices vary widely.

Note only do the railroads vary with regard to the frequency, manner and geographical reach of their observation programs, they also vary with respect to documentation of those programs. Available information suggests that only about half of the major railroads include Rule G observations as an identifiable part of the program of operational tests and inspections presently required by FRA regulations (49 CFR Part 217). Several of the railroads that have an identifiable Rule G component appear to have added it only recently.

*Violations of Rule G.* On an industry-wide basis, the railroads detect a relatively small number of Rule G violations, indicating either that few violations occur or that many violations are not detected. Several railroads did not appear to know how many Rule G violations they had experienced over the past few years. Others kept rather complete data, although not in any standard format. For instance, some railroads offered only totals for all employees while others were able to provide data for one or more specific crafts, e.g., train and engine service.

One railroad with over 20,000 transportation employees (3) reported that it had identified an average of about 50 violations per year over a three-year period among its train, engine and yard employees. A railroad with about 4,000 employees reported that it had only 24 Rule G cases in the period 1978 through 1982—an average of fewer than 5 per year. A railroad with operations in the southeast that employed about 8,500 transportation employees reported detecting an average of only 10 violations per year among those employees. A western railroad that employs approximately 14,000 persons said that it has dismissed "over 50" employees per year for the past two years.

In short, the information reviewed by FRA indicated that enforcement practices, recordkeeping practices, and numbers of violations detected varied among the railroads.

*Sanctions applied.* Most railroads have historically dismissed even first offenders. This approach represents a genuine conviction on the part of many rail managers that alcohol and drug use are serious offenses that deserve a firm response. On the other hand, the sanction is severe enough that one would expect it is not truly reflective of final disciplinary outcomes; and, in fact, the actual disposition of employees who offend Rule G follows a more complex pattern. For instance, a large western railroad said that it sometimes uses initial sanctions short of dismissal, but never less than a 6-month suspension. Two major railroads reported that a clear majority of those dismissed were returned to service on a leniency basis with an average of five months out of service (for first offenders). Another railroad said that Rule G offenders were usually out of service about one year. At the date of publication of this notice FRA was unable to identify any major railroad that had in effect a policy totally forbidding the return to service of Rule G violators.

*Role of grievance mechanisms and rehabilitation programs.* A dismissed Rule G violator may be returned to service by several different routes. The employee's collective bargaining representatives may persuade management to reinstate the employee through the railroad's appeal process or, perhaps, by agreeing to drop other, unrelated grievances if the employee is brought back. Management may make available the services of the employee assistance program and follow a policy of returning first offenders to service if they successfully complete counseling and/or treatment. The employee may approach the company directly, requesting leniency and offering evidence that his problems are behind him. Finally, the union or the employee may take the dismissal before a board of adjustment under section 3 of the Railway Labor Act. All but the last of these routes generally have one thing in common—the dismissed employee is basically at the mercy of the company. The company may elect to take the employee back but is not obligated to do so. On the other hand, arbitration under the Railway Labor Act often takes considerable time, particularly where the employee is forced to pursue the claim through the National Railroad Adjustment Board. Further, as noted below, the arbitration boards uphold



Rule G dismissals in a majority of the cases. Thus, from the point of view of the employee the salient feature of Rule G discipline is not that dismissal is always permanent, but that dismissal can be cured only if the employee is a successful supplicant before the railroad.

At least two railroads have modified these traditional approaches to dismissed employees. The first railroad permits any employee "found guilty" of a Rule G violation to apply for treatment and eventual reinstatement upon waiver of the right to appeal the dismissal. This option is available only to an employee found to be "addicted" by the head of the company's rehabilitation program. Such an employee may be reinstated through the program on completion of treatment, in the case of a first offense.

Statistics provided by this railroad are particularly instructive. During a recent five-year period, the railroad experienced 172 identified Rule G violations among both operating and non-operating employees. Of the 172 affected employees, 170 elected to waive arbitration and participate in the rehabilitation program. The remaining 2 employees elected to arbitrate, and their dismissals were upheld. The 170 participants were accounted for as follows:

- 18 were identified as "without addiction," of whom 13 were restored to service on a leniency basis and 5 remained permanently dismissed.
- 92 were evaluated as addicted and, following rehabilitation, were reinstated. (Three were later dismissed for second offenses and one of the three was again reinstated after a second treatment cycle.)
- 6 completed the program, but could not be reinstated under the program because of other charges unrelated to the use of alcohol.
- 7 employees failed to conform to the required therapy.
- 39 were satisfactorily participating in therapy as of spring 1983.
- The remainder fell into miscellaneous categories (deceased, reinstated after other charges were overturned, etc).

Note that only 18 of 170 Rule G violators who waived arbitration (about 10 percent) were judged to be "volitional" drinkers or drug users.

The second railroad is the recent merger partner of the first, and had been the only railroad that reported dismissing all violators and returning none to service under a carrier leniency policy. Since it filed its initial comments in this proceeding, this railroad has joined its partner in application of

similar procedures for handling dismissed Rule G violators.

The salient point here is that most railroads use dismissal as the standard sanction for Rule G violations, but those same railroads generally allow dismissed offenders to return to work under policies that range from formal and explicit to totally *ad hoc*.

**Arbitration results.** As might be expected, the railroads that emphasize rehabilitation and reinstatement have fewer arbitrations in proportion to their Rule G violations than railroads that have no clear policy or refuse to reinstate employees. Based on information received from the railroads that participated in the hearing process, it appears that from one-half to two-thirds of dismissals challenged before the boards of arbitration are upheld. In the other cases, employees are usually reinstated without pay, generally where permanent dismissal is deemed too severe. In a small minority of cases, employees are reinstated with back pay and benefits. These appear to be cases where the railroad has been unable to make a strong case that a violation occurred.

#### *Rehabilitation Programs*

Abuse (or misuse) of alcohol and drugs can manifest itself as an occupational problem in a variety of ways. Deterioration of interpersonal relationships, excessive absence from work, and decreased productivity may all become evident, with or without pronounced on-the-job impairment. Employers thus have a clear economic stake in dealing with alcohol and drug problems, independent of safety consequences. Like many other large corporations, most larger railroads have responded to these problems and the safety dimensions of alcohol and drug abuse by establishing formal employee assistance programs (EAPs). Many of the programs (sometimes called "generic programs") offer counseling and other services for a wide range of other personal problems, such as family conflicts and mental health problems, as well as alcohol and drug abuse. In some cases, the EAPs also serve the families of employees.

Formal EAPs are ordinarily run by salaried employees of the railroads. EAP directors and counselors may be treatment professionals (such as social workers or counseling psychologists) or recovering alcoholics. Some railroads do not employ in-house staff but instead rely on volunteers to identify problem drinkers. Whether or not the railroad has a formal EAP with salaried counselors, much of the treatment is provided by outside resources. On most

railroads, employees diagnosed as alcoholics are referred to hospitals or residential treatment center for 30 days of inpatient therapy, which may include detoxification. Upon successful completion of inpatient treatment, patients may be continued in outpatient treatment or encouraged to join Alcoholics Anonymous. As discussed below, follow-up varies from intensive to essentially non-existent.

When viewed from the point of view of accident prevention, the programs perform two distinct roles:

**Preventive role.** First, EAPs foster prevention of Rule G violations by helping employees to modify their substance abuse behaviors before they result in detected offenses. Most railroads permit the troubled employee to enter the EAP-prescribed treatment program on a confidential basis prior to any disciplinary offense. Supervisors are often told only that the employee is on a leave of absence. Companies are willing to permit employees to return to work as a matter of right, without enhanced supervision, because this policy encourages employees to deal with their problems at a relatively early stage. (Some companies apparently require successful completion of treatment before the employee is returned to service, but many apparently do not.)

**Restorative role.** As discussed above, many employees enter EAPs only after they have been detected in Rule G violations. Ironically, most such "employees" do not enjoy any employment relationship with the company at the time they seek help, since they have been dismissed. However, most railroads make available the services of the program to dismissed offenders, and some—but not all—make successful completion of counseling or treatment a condition precedent to a leniency reinstatement. A large portion of the cost of treatment is often borne by a negotiated health insurance plan, which typically provides benefits for a period of four months after termination.

**Extent of penetration.** In reviewing the information submitted to the docket on delivery of EAP services, FRA expected to find that none of the programs was reaching a significant portion of problem drinkers or drug abusers. This was particularly true since none of the railroads claimed major success in this area. In fact, the caseload information suggests that many of the EAPs appear to have made substantial progress in delivery services to their target populations, while others have not. The partial success of some of the programs is a function of their longevity and annual caseload size. It is not clear

whether the inability of the programs to reach all those who need assistance is caused by insufficient program capacity, inadequate awareness and referral systems, lack of program credibility, the reluctance of potential clients to acknowledge their problems and accept help, or other factors. However, it is likely that more than one of these factors are operative with respect to each EAP.

From the point of view of accident prevention, EAPs obviously cannot assist in preventing job-related substance abuse if the affected individuals are not brought into the programs and provided treatment that is successful. However, determining how many individuals "should" be served by any given EAP is very difficult. For instance, the extent of drug abuse among railroad employees can only be estimated. National prevalence rates for use of illicit drugs among the employed population have been estimated to be in the 3 to 7 percent range (including use of marijuana). Rates for males and young adults are substantially higher. (See discussion below on pre-employment drug screens, under "Conclusions and Proposals.")

Data for railroad employees affected by alcoholism or problem drinking are somewhat better defined. Based on a 1978 survey of employees of seven railroads that employed more than half of all rail workers, the REAP Report estimated that between 12 and 20 percent of employees were "problem drinkers," depending on the definition employed. Operating employees tended to be somewhat more likely than "exempt" or nonoperating employees to be problem drinkers. The Alcohol, Drug Abuse and Mental Health Administration estimates that the prevalence of problem drinking in the national population to be at least 5 percent, but does not have a current estimate of the adult male prevalence, which may be considerably higher than the estimated incidence among adult women and minors. (Most employees in Hours of Service positions on the railroads are male.) Based on national averages, the views of the railroads, and the REAP Report analysis, FRA believes it is likely that the incidence of problem drinkers (including uncontrolled and recovering alcoholics) among all railroads employees probably varies in the range of 5 to 20 percent, depending on the area in which the railroad operates. The rates for operating employees are probably slightly higher.

Despite a reasonable level of confidence regarding the target population, there is perhaps no more

elusive goal than that of accurately estimating the extent EAPs are reducing (or checking the growth) of the population currently affected by job-related substance abuse. The REAP Report concluded that EAPs served between about 2 percent and 17 percent of "problem drinkers" on the seven study railroads during the study year 1978 (Table 6-14, page 177). (This estimate represents a range using two different prevalence rates.) The REAP Report executive summary estimated that the programs served 4 percent of problem drinkers in 1978 (apparently using a prevalence rate of 19 percent). The 1982 White Paper estimated that programs among all Class I railroads reached an average of 6 percent of problem drinkers in 1981 (assuming a 19 percent prevalence rate).

The foregoing estimates did not take into consideration clients previously served who were no longer a part of the case load. Many of the estimates submitted to FRA by the railroads appear to suffer from the same limitation. Although many of the programs report "success rates" of 70 percent or better, and individual problem drinkers are rarely maintained as active clients for more than two years, some of the evaluations of penetration do not take into consideration persons restored to normal functioning (i.e., they fail to subtract persons who have their problems under control from the target population). But it seems reasonable to assume that the better established EAPs have made progress in rehabilitating significant portions of the "target population" since 1978. Rail employment has declined significantly over the past few years, and there has been relatively little new hiring. The programs generally report that substantial portions of the persons served remain in service with their respective railroads. In order to conclude that no substantial progress is being made in helping problem drinkers, one would have to assume that there are an unlimited number of persons at risk or that, among the population at risk, potential cases are maturing at a rate faster than mature cases are being treated. Clearly the former is not plausible and the latter offers only limited insights.

The current number of affected individuals on the respective railroads is not known for a number of reasons: prevalence and "population at risk" estimates vary and rely on a variety of often unstated assumptions; techniques and standards for measuring "rehabilitation" outcomes are not standardized and necessarily involve

subjective judgments; employee populations change constantly through attrition and new hiring; long-term follow-up studies on the success of rehabilitation efforts (measured in restoration of job performance or abstinence from alcohol) are generally not available; and, as noted above, a certain number of employees not previously troubled by alcohol or drug abuse become affected for the first time each year. Further complicating matters, client totals for the generic EAPs include persons with problems other than substance abuse. (Delivery of EAP services directed at general mental health problems may reduce episodes where alcohol or another drug is used inappropriately, but the extent of this relationship cannot be determined.) A thorough review of current EAP penetration rates would require virtual replication of the REAP study on a larger scale, with significant modifications in study design. Even then, any conclusions would probably have to be based on a number of assumptions not readily subject to empirical measurement except over an extended period of time.

What can be said is that the older railroad programs that have received active support from other sectors of the railroads' management or from organized labor appear to be making significant inroads into the target populations. That is, given the significant numbers of employees served and the estimated prevalence of problem drinkers in the railroad employee population, *some programs appear to have served a majority of problem drinkers* through at least one treatment cycle. Further, success appears to breed success. That is, there is some evidence that the older programs continue to see increases in referrals even as employee populations decline and cumulative penetration increases. This may reflect growth in program capacity, more effective general awareness efforts, or word-of-mouth promotion by present and former program clients. In any case, this kind of growth can only auger well for the reduction of uncontrolled problem drinking on the railroads.

On the other hand, other railroads have clearly not made significant inroads to this point. For instance, a railroad that employed over 30,000 persons at the end of 1932 reported that its program had experienced only about 675 referrals since its inception in 1978. Another railroad of similar size said only 200 of its former EAP clients are currently "back at work" out of about 750 referrals (a figure that apparently

includes family members). A third large railroad estimated that from 15-20% of its operating employees need help for alcohol or drug problems but reported that its five-year-old EAP has successfully served only 600 employees since 1977 (2% of 1982 employment or about 10% of the target population, assuming a static work force). A railroad that employed 20,000 persons at the end of 1982 reached under 400 employees prior to its recent merger with another railroad. Two Class I railroads estimated very low penetration of the problem population, and another two estimated penetration at or below 25%. Three did not have salaried personnel devoted exclusively to the program, and two of those did not maintain statistics. Another large railroad that responded to the NAPRM did not address this issue, and several smaller Class I railroads did not participate through direct public comments.

Although this information is difficult to interpret, particularly given the geographic and other variables that influence prevalence rates, it does suggest that a significant minority of problem drinkers have been served by EAPs and that institutions are in place on most railroads to continue that progress. Nevertheless, most problem drinkers remain unidentified and unserved after a decade of voluntary efforts. Treatment of drug abusers presents an even more difficult topic of analysis, but a few EAPs are now seeing these clients in sufficient numbers that more may be known in the near future concerning the utility of EAPs in dealing with abuse of other drugs.

#### *Bypass Agreements*

The ANPRM described the growing phenomenon of "Rule G bypass agreements" and detailed their recent spread. Bypass agreements are collective bargaining agreements that are intended to encourage employee support for Rule G through a limited substitution of rehabilitation for punishment. The major common element of the agreements is that they permit a Rule G offender to avoid (bypass) disciplinary sanctions for a first offense by entering a program of counseling and/or treatment. An employee deemed not to require treatment is returned to service almost immediately.

Some agreements, such as the ones in effect on the Kansas Division of the Union Pacific Railroad (UP), guarantee the option to bypass only where a co-worker report is the means by which the violation is detected. Others, notably those in effect on the Chessie System, give the employee the option of bypass

even if a supervisor detects the violation. In all cases, alleged offenders may demand an investigation and contest the disciplinary charge as an alternative to the bypass. The agreements also differ with respect to the return to service. In some cases, the decision to return the employee to service is exclusively within the discretion of the employee assistance counselor or director. In other cases, a carrier officer makes the determination. Some agreements allow a bypass only once in the employee's career. Others offer a second chance after the expiration of 5 years from the first incident. Most bypass agreements are relatively new, and it can be expected that labor and management will continue to refine the rights and procedures that they embody.

*Purpose and effect.* Employees often believe that management will assess punishment well in excess of that necessary to deter a second offense and that management cannot be trusted to return the offender to service on a fair and impartial basis. Bypass agreements rest on the premise that employees will "turn in" the Rule G offender only if they are sure the offender will receive help and will not lose his or her livelihood (be dismissed). From the point of view of employees and their representatives, therefore, an agreement is necessary to assure the rights of the offender.

These programs are of recent origin, and there is little evidence at this point to conclusively prove or disprove the theory that bypass agreements actually promote co-worker reporting. However, participants in these agreements appear to share the view that they do unify employee against the use of alcohol or drugs. That is, employees refuse to tolerate abusive conduct and pointedly indicate to the offender that they will report the Rule G offense unless the offender "voluntarily" refers himself for counseling and treatment. Advocates of bypass agreement also contend that peer concern for the alcoholic or drug-dependent person is complemented by intolerance for any Rule G violation by the non-dependent employee. Thus, employee involvement may produce more referrals of chronic abusers to the EAPs and fewer violations by non-addicted employees who are capable of refraining from Rule G violations.

*Success of the bypass concept.* The ANPRM reported statistics relating to the claimed success of bypass agreements of the UP. The UP/United Transportation Union bypass agreement, which covers over 500 employees in the Transportation

Department of Kansas Division, became effective on November 1, 1980 (later replaced with a minor revision). A similar agreement between UTU and the Brotherhood of Locomotive Engineers became effective on the same division on June 1, 1981. Coincident with implementation of these agreements, the UP claimed substantial improvements in injuries, run-through switches, and yard derailments. (The UP statistics are reported in the ANPRM.) These improvements came during a period of declining traffic and employment, and the data were not normalized for these declines. However, FRA has solicited from the UP employee injury data that is normalized on the basis of 200,000 employment hours. The summary below shows the frequency-severity index from those data for transportation employees of the Kansas Division's Transportation Department (bypass agreements in effect, per above) and the entire UP system (including Kansas).

Frequency/severity index	Kansas Transportation	UP system
1978.....	2.14	3.39
1979.....	3.41	4.42
1980.....	1.76	3.91
1981.....	.50	2.01
1982.....	.60	1.07
1983 (11 mo.).....	.22	1.37

These results are clearly susceptible to varying interpretations. The UP Safety Director specifically cautions that UP began implementing a major new employee safety program across the UP system in March of 1982 and that the new program was implemented on the Kansas Division in the summer of 1982. He believes that most of the further reductions in the frequency and severity of employee injuries in Kansas since that time may be attributable to the new initiative. However, UP continues to believe that the bypass agreements have yielded impressive gains in safety since they were introduced, and the available information appears to be consistent with that belief.

#### *Awareness and Education Programs*

Available information on awareness and education programs is not subject to quantification. At various times during the last 15 years the railroads and employee organizations have made limited efforts to go beyond instruction in the requirements of Rule G to more effective educational efforts concerning alcohol and drugs. FRA has played a role in these efforts through five national conferences, Project REAP, and other means. However, it can be confidently said that few awareness and education

programs in the industry have been implemented with much consistency or intensity.

Some education and awareness efforts have been addressed to all employees and others have been targeted at particular groups, such as line supervisors or union representatives. Some such programs have been oriented to the direct support of safety programs, while others have focused on promoting referrals to EAPs. A minority of railroads have begun efforts to educate segments of management and employees to identify the signs of problem drinking and drug use through review of performance, physical manifestations, or increased familiarity with drug slang and paraphernalia.

Efforts directed at the general employee population usually consist of distribution of literature or viewing of a safety film related to alcohol or drugs. There is no way to estimate what proportion of employees have had recent exposure to such efforts, but it is clear that they have generally been sporadic. On the other hand, one major railroad has recently exposed 17,000 employees to a 45-minute awareness presentation. The national union organizations developed an EAP workshop that relied heavily on the Project REAP findings, but it is not known how many employees have participated.

A major western railroad states that over 2,000 supervisors took part in an employee assistance training program during the past year. Two major railroads are providing detailed drug and alcohol information to all of their supervisors through formal training programs and have invited the participation of local union officers. A third railroad plans to institute such a program this year.

#### *Recent Developments*

Since the close of the comment period and initial work on the preparation of this notice, several developments have been brought to FRA's attention that should be mentioned as a background for further proceedings in this rulemaking. Ongoing accident investigations are described above under "Safety Consequences of Alcohol and Drug Use," and another development has already been discussed above under "Enforcement of Rule G."

In addition, in April of 1984 the Union Pacific Railroad and its employees announced "Operation: Red Block," a concerted effort to involve all supervisors and employees in the prevention of alcohol and drug use

through an informational and education campaign. UP's labor organizations are forming "Action Committees" to refer troubled employees for assistance. The parties have also signed "companion agreements" that permit dismissed first offenders under Rule G to return to service on completion of treatment or a formal education program. Employees are reinstated on a probationary basis for the first 12 months. These agreements are, thus, broader than the bypass agreements described above, but come into play only after the disciplinary process has been completed.

As further discussed below, beginning in November of 1983, FRA redoubled its efforts to improve voluntary prevention programs through joint action with the railroads and the national labor organizations.

It is also worthy of note that on February 27, 1984, the General Assembly of the State of Indiana adopted a concurrent resolution urging FRA "to adopt a rule authorizing random or selective use of blood alcohol detection tests for railroad train crews and making submission to such tests an implied condition of employment."

#### *Review of Regulatory and Other Options*

The ANPRM set forth a variety of approaches to the control of alcohol and drug use in railroad operations. Commenters identified additional measures for consideration, and FRA has continued to refine its definition of possible approaches. The discussion in this section reviews the principal options in the light of the comments and other information available to FRA.

#### *1. Federal Prohibition on Alcohol or Drug Use*

##### *a. General Comments and Analysis*

The most basic and obvious option for dealing with alcohol and drug use on the railroads is simply to forbid such conduct. It is an option that has been before FRA since at least 1974, when the National Transportation Safety Board (NTSB) recommended that FRA issue a regulation that would "in effect prohibit the use of narcotics and intoxicants by employees for a specified period prior to their reporting for duty and while they are on duty" (R-74-9). In March of 1983, the NTSB recommended that FRA—

Immediately promulgate a specific regulation with appropriate penalties prohibiting the use of alcohol and drugs by employees for a specified period before reporting for duty and while on duty (R-83-30).

The ANPRM noted that FRA does not have direct authority to assess "appropriate penalties" against individual employees, but invited comments on three approaches to specific regulation of this subject matter: (i) A Federal rule forbidding certain conduct, backed by sanctions against the railroads ("Federal Rule G"), (ii) a requirement that the railroads have in effect a Rule G conforming to specified standards or minimum criteria and make reasonable efforts to enforce it ("Model Rule G"), or (iii) recommendation for legislation creating civil or criminal sanctions against employees who use alcohol or drugs in connection with safety-sensitive functions. The reaction of the commenters was divided.

*NTSB and other Federal agencies.* NTSB Members, including the Chairman and Vice Chairman, appeared at three of the public hearings. A senior staff member appeared at the fourth. The NTSB witnesses recognized that FRA has limited authority to take action directly against employees and evidenced no interest in either making a legislative recommendation for direct sanctions or having FRA do so. However, they stressed the importance of establishing a firm Federal policy. NTSB believed that, even without extensive FRA enforcement efforts directed at employees, the articulation of a clear Federal policy would reinforce carrier rules, help to deter noncomplying behaviors, and provide a framework for later, more careful examination of carrier programs.

Although not commenting on the need for specific rule provisions, both the National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse stressed the need for meaningful action.

*State and local representatives.* Several representatives of State or local governments implicitly supported the articulation of a Federal policy. The NARUC survey showed that 8 of 21 States responding said their State had some kind of law or regulation enabling the agency to deal with alcohol or drug abuse, but only 5 States had taken any actions to enforce those provisions. Two States thought FRA should leave the alcohol and drug issue solely to collective bargaining. The transportation director of a public utility commission endorsed criminal sanctions at the State or Federal level. However, 17 of the States responding to NARUC thought first offenders should be required to submit to counseling and treatment without job loss (and, evidently, without other specific sanction).

*Private organizations and companies.* Several organizations that put emphasis on prevention of drunk driving appeared or provided written comments to express their concern over alcohol and drugs on the railroads. B'Nai B'Rith, Citizens for Safe Drivers, and Mothers Against Drunk Drivers (MADD) all favored some form of Federal regulation. These organizations tended to affirm the importance both of certain sanctions and opportunities for rehabilitation, but generally stopped short of recommending specific criminal penalties at the Federal level. Further support for direct Federal regulation came from the Hazardous Materials Advisory Council (comprised of shippers and carriers), the International Association of Chiefs of Police, the Washington Legal Foundation, and the American Trucking Association.

*Railroads.* The Association of American Railroads (AAR) and individual freight railroads generally opposed a "Federal Rule G" or the establishment of a Model Rule G formulation that the railroads would have to adopt. The railroad commenters believed that neither was necessary, given existing railroad rules and programs. However, the railroads did not raise serious objections to minimum Federal criteria for railroad rules. Two railroads thought any Federal rule should apply directly to employees, not the railroads. Two commuter authorities also opposed any Federal role.

Management reaction was, however, not uniformly negative. One railroad urged the adoption of minimum criteria to add force and weight to the railroads rules. Another railroad supported a Federal rule, suggesting that the combined efforts of government, labor and management would be required to address the problem. Even the railroads that supported a Federal role, however, believed enforcement would have to be left to the railroads through established disciplinary procedures.

*Unions and employees.* The national railroad employee organizations opposed direct Federal regulation. They believed that the existing Rule G is a "good rule," but argued that the rule is not uniformly enforced on all railroads. They also said that the sanction of dismissal is usually unfair and perpetuates a cover-up of rule violations. Opposition was also voiced by several local union leaders, one of whom believed that the railroads are not actually enforcing the existing Rule G.

However, one State legislative board chairman appeared to support a Federal rule if it included a right to rehabilitation—rather than dismissal—on

a first offense. A local union leader thought that if FRA felt compelled to issue a rule, it should be in the form of minimum standards.

Four citizens wrote in to support direct Federal regulations, one saying that "serious consequences" should flow from violations. A Washington, D.C., attorney with detailed knowledge of both the railroad environment and alcoholism treatment programs advocated a "modern Rule G" that would allow addicted employees a one-time right to suspension and treatment. He stressed that FRA must act as a catalyst for change. A member of the Presidential Commission on Drunk Driving also advocating strong and direct action.

*FRA conclusions.* FRA believes that the problem of alcohol and drug use in railroad operations is sufficiently serious and persistent that regulation is required. The foundation of any regulatory program is the articulation of a policy, together with minimum criteria for private sector action. Since the thrust of FRA regulations in this area would be to establish minimum safety standards, and the railroads may be concerned with a broader range of issues, including general fitness and productivity, FRA believes that it is not appropriate to mandate the adoption of a prescribed or model Rule G. FRA is not unmindful that most of the railroads and their employees will not welcome regulations on this topic. However, FRA believes that employee and public safety can be adequately served only if a higher level of effort is devoted to the prevention of alcohol and drug-related accidents. Therefore, this notice contains proposed rules establishing minimum standards of employee conduct and a duty of care for railroad supervisory efforts to enforce those standards.

#### b. Abstinence Period

The NTSB has recommended that FRA prohibit the use of alcohol or drugs for a "specified period" prior to the time the employee reports for duty. Based on NTSB testimony, it appears that a period of 8 hours is intended.

*Comments.* An established abstinence period of 8 hours drew support from a State-level union leader, public interest groups, and two railroads. The American Trucking Association favored a 4-hour period of the kind mandated by the Federal Highway Administration. The president of a consulting firm that provides service in the field of occupational drug abuse favored a 12-hour period, which represents the time required for the body to oxidize significant quantities of alcohol. The International Association of Chiefs of

Police also supported an (unspecified) abstinence period.

However, there was overwhelming opposition among most railroads and employee organizations to any set abstinence period. Even the railroads that tend to support the concept noted that any such rule would be unenforceable, since the railroads are said to be in no position to police off-duty conduct of their employees.

The industry commenters also contended that set abstinence rule would be impractical for many employees who are not in scheduled service (such as extra board employees) or who are subject to call beyond scheduled duty hours (particularly railroad signalmen). They pointed out that an employee may wait for many hours (or even several days) for a call. The call may require him to report for work in two hours or less. In these circumstance the employee could hardly plan to remain abstinent for 8 hours prior to the beginning of the assignment, unless the employee is willing to remain totally abstinent for the even longer period he is "subject to call."

*FRA analysis.* It is generally true that the railroads cannot vouch for the off-duty conduct of employees. However, at least some Rule G violations have been charged against employees who have been seen consuming alcoholic beverages while "subject to call." Anecdotal evidence suggests that some drinking by non-addicted employees takes place in common areas of railroad-owned crew quarters and some takes place in public places such as taverns near railroad yards. As a consequence, the problem is subject to some degree of monitoring, but the prospect of effective enforcement is at best conjectural. At worst, an abstinence rule carries with it a significant potential for employee harassment and discriminatory enforcement.

The argument that an 8-hour abstinence rule would be impractical underscores the rigidity of Rule G itself and has already been noted in the discussion of Rule G above. The AAR testified that—

A Federally prescribed period of abstinence would not be practical and thus not effective. It could also be perceived by employees as unfair and hence be self-defeating because many operating employees are subject to call at any time after their legally required 8-hour rest period. Technically, they could be prohibited from using alcohol at any time while awake. Rule G in force on the railroads is more forceful than a Federally mandated period of abstinence. The rule prohibits any drinking on duty and prohibits reporting for work with



any trace of alcohol no matter how recent or remote in time the ingestion may have been.

Here, the AAR concedes that Rule G is so forceful it effects virtual Prohibition on many employees. In theory, at least, an employee could be disciplined if the employee drank while subject to duty and was detected in the violation, even if the employee was not called for an assignment during the period alcohol remained in the employee's blood.

Nevertheless, the points made by the AAR are well taken. FRA's primary public policy objective is to prevent employees impaired by alcohol or drug consumption from operating the nation's railroads. A rule that prohibits drinking on duty and prohibits reporting for work impaired by alcohol or drugs accomplishes that objective. In an industry where duty calls are unscheduled and often days apart, any pre-reporting abstinence rule is the functional equivalent of Prohibition, and would likely be no more successful in attracting the level of community support necessary to make it a realistic, enforceable regulation.

Accommodation of the railroad's need for flexibility in scheduling assignments, on the one hand, and the employee's desire to live a more "normal" life, on the other, is a matter best left to collective bargaining. Labor and management could bargain for a system in which employees would be allowed to mark off without penalty when they receive genuinely unexpected calls that involve short notice. Restrictions could be placed on the number of such instances and their use during holiday periods. The hearings developed the fact that union leaders see a clear need for such a "cut system," and the railroads appear willing to entertain the idea. FRA recognizes that such a system would be difficult to implement for employees in signal service, in particular, but believes that agreements could be reached to handle most situations if the parties show flexibility. FRA encourages the parties to address this problem through constructive collective bargaining during 1984.

Under current circumstances, it would not be prudent for FRA either to adopt the fiction of the existing Rule G formulations (that employees will remain abstinent indefinitely) or to go forward with a possibly unworkable abstinence period. Rule G compliance already suffers enough from the lack of credibility created by a very broad rule that is made practical by overlooking violations at the margins. No purpose would be served by adding an abstinence period that itself could not be enforced.

### *c. Other Components of a Federal Regulation*

The comments focused primarily on the advisability of a Federal rule, rather than its content. However, comments were received on such issues as whether the rule should include a maximum BAC, what drugs should be proscribed from use, and the personal disqualification of alcoholics and other drug-dependent persons—in addition to the comments on abstinence periods discussed above.

**BAC.** The AAR and the commenting railroads opposed specification of any BAC level, since it might be seen to undermine the requirements of the present Rule G. The commenter who served on the Presidential Commission on Drunk Driving believed that an FRA rule should not permit any level of blood alcohol. A representative of MADD suggested that a maximum BAC of .05 would be adequate for present purposes, noting that this level is used for traffic safety purposes in Australia. An NTSB witness said that blood alcohol even below .05 degrades performance. A State-level union officer advocated a BAC of .10, as measured at a hospital. A UTU local chairman thought the BAC threshold should be something over .05.

**Drugs.** The railroads appeared to favor prohibiting the use of any drug that could adversely affect safety. The AAR said that any rule should bar "alcohol or other intoxicants, narcotics, depressant, stimulants, hallucinogens, cannabis or other mind or function altering substances." However, since "individual railroads may be successful in disciplining action without such a broad categorization," the AAR wanted FRA to avoid suggesting that any existing rules are deficient in relation to the proposed standard. One commenter favored barring the use of all "mood changing drugs," and a consulting firm with extensive experience in this field suggested the use of the term "psychoactive drugs." One commenter favored controls on use of over-the-counter drugs, and a major railroad thought FRA should specifically address prescription drugs.

**Drug dependence.** The American Trucking Association believed that FRA should provide for the medical disqualification of alcoholics and "drug users."<sup>(4)</sup>

**FRA conclusions.** FRA believes that, if Federal regulations are to be more than mere exhortations, they must be specific in defining a standard of conduct. That standard of conduct must relate to safety of operations in a direct and meaningful way. In light of this objective, FRA proposes to issue a

regulation that contains a maximum blood alcohol concentration and a specific designation of proscribed drugs.

FRA recognizes that the Federal Highway Administration (FHWA) and Federal Aviation Administration (FAA) both bar from safety-sensitive functions persons who are alcohol or drug-dependent, unless it is shown that those individuals have overcome their problems and are living drug-free lives. Certainly drug dependent persons as a class pose a higher safety risk than other employees. However, unlike FHWA and FAA, FRA does not have in place a medical qualifications system capable of monitoring or adjudicating the status of thousands of employees. The railroads, however, do undertake to ascertain the fitness of their employees and, in some cases, make effective use of their medical departments to identify alcohol and drug-dependent employees. Further, in this notice FRA establishes an additional means by which such employees can be identified for complete diagnosis and treatment. As a consequence, FRA does not at the present time propose to issue regulations requiring the disqualification of employees based solely on their status as drug-dependent individuals. However, if the railroads fail to improve their use of existing capabilities, refining their medical standards and procedures to detect initial and recurrent dependence on the part of employees in safety-sensitive functions, it may become necessary for FRA to issue specific regulations on this subject in the future.

### *d. Disciplinary Disqualifications and Licensing*

The ANPRM requested comments on whether FRA should require the railroads to disqualify offending employees for specified periods. That is, by regulation employees would be withdrawn from safety-sensitive functions for progressively longer periods based on the number of offenses committed. Such a system could probably be implemented without the issuance of Federal licenses to employees, since the railroad disciplinary system includes negotiated procedural protections and any Federal regulatory requirement would be deemed an implied term of the particular collective bargaining agreement. On the other hand, the system could be implemented through licensing, with FRA responsible for suspending and revoking licenses for cause.

**Comments.** The NTSB warned that a licensing program might have to be

considered if less onerous measures failed to address the problem. An NTSB witness particularly deplored the "plea bargaining" of multiple grievances that can permit Rule G violators to reclaim their jobs without evidence that they have received treatment or suffered sufficient loss of income to serve as a deterrent to future violations. The American Trucking Association favored rules requiring a one-year suspension on the first offense and 3 years on the second offense (similar to FHWA rules). A local public official responsible for emergency preparedness in his county favored Federal licensing, and an expert on drunk driving stressed the use of summary administrative revocation of licenses as an important deterrent. As noted above, a majority of State public utility commissions favored counseling and treatment on the first offense.

Although not favoring Federal regulations, representatives of the national union organizations agreed that a short suspension might be appropriate on the first offense (for employees who were determined not to require treatment). The unions generally believed second offenders should be dismissed. A local union officer opposed licensing, opposition that was reflective of the overall employee position.

Most of the railroads appeared to favor maintenance of existing policies, which nominally call for dismissal on the first offense. None of the railroads expressed support for licensing.

**FRA analysis.** FRA believes that licensing and mandatory disqualification periods represent a degree of Federal intrusion that is unnecessary in the railroad context. On the other hand, FRA is concerned that the railroads, in concert with employee representatives, re-evaluate and reform the assumptions underlying current Rule G discipline.

#### e. Coverage

Like other large corporations, the major railroads employ personnel with a wide range of backgrounds to perform administrative, clerical, financial, marketing, supervisory, maintenance, transportation and other tasks. The duties of many of these employees are quite remote, both in distance and in nature, from the railroad operating environment. On the other hand, many non-transportation employees, such as maintenance-of-way employees, car inspectors, signal maintainers, and others, perform their work in the midst of train and switching movements. Other employees, such as dispatchers and block operators, help to control train movements from office-like environments. Determining which

employees should be covered by a Federal rule is difficult at best.

**Comments.** The commenters offered only sparse advice on this subject. A representative of the NTSB indicated that that agency was principally concerned with public safety. He indicated that signal employees should be covered, but had no opinion on a maintenance-of-way laborer whose work would be inspected prior to resumption of operations over the track. That is, the NTSB appeared to have no position with respect to employees other than operating employees who might be exposed to the hazards of moving equipment in the yards.

The AAR and one railroad indicated that, if rules are issued, they should cover employees subject to the Hours of Service Act. Another railroad would add yardmasters whether or not subject to the Hours of Service Act.

The Brotherhood of Railroad Signalmen agreed that its members (who are covered by the Hours of Service Act) would have to be covered by any alcohol and drug rule. A local union officer of the UTU believed that all railroad jobs are safety-sensitive and should be covered, a position also taken by a Brotherhood of Locomotive Engineers (BLE) General Chairman.

**FRA position.** As further discussed below, FRA believes that initial regulations should cover employees subject to the Hours of Service Act.

#### 2. Breath and Body Fluid Testing

Breath and body fluid testing represent the two most objective means for determining whether employees have alcohol in their blood and, if so, how much. Body fluid testing is the sole means of reliably determining drug use in most cases. However, these techniques are also extremely controversial. FRA believes that most of that controversy and associated resistance to testing techniques is caused by (i) misunderstandings concerning what they are intended to accomplish, (ii) deliberate or negligent misrepresentations concerning the reliability of testing, and (iii) attempted applications of the technology that do not take into consideration appropriate safeguards.

To be sure, much of the controversy is also a function of concern for personal privacy and disagreements concerning the obligations of the individual employee to other employees and the public. This concern involves a host of subjective elements, as well as possible legal issues.

#### a. Testing Modes and Objectives

It is important to understand that objective testing techniques can be used in a variety of ways, many of which can mitigate or eliminate objections based on privacy interests, potentially unfair consequences, or supposed unreliability of specific techniques.

**Modes.** Testing can be done for at least the following distinct purposes: preliminary screening of a population, preliminary determination of presence (use) or impairment, or final determination of presence or impairment. Obviously, testing in one mode may be followed by testing in another mode. For instance, it is common in many States for police officers to use preliminary breath testing devices to confirm suspected intoxication among drivers of motor vehicles. If the preliminary test is positive, the driver is ordinarily transported to a location where an evidential-quality test can be performed. It is also common (and accepted practice) for positive tests of blood or urine samples to be retested by another method, either to confirm presence with specificity or to determine quantity, or both.

**Objectives.** A government agency or a transportation company may have a wide range of objectives in mind when it enters upon a testing program. The most obvious objective is to identify rule violators so that they can be subjected to sanctions. However, any sanction may itself be meted out for any combination of the following purposes: (i) Retribution of punishment; (ii) special deterrence (to keep the particular person from violating the rule again); or (iii) general deterrence (to keep others from violating the rule). In an occupational environment, the sanctions may be called "discipline." As noted below, discipline need not be punitive.

Testing may also be undertaken with the exclusive objective of identifying persons who are abusing alcohol or drugs and need counseling or treatment.

**Test environment.** Testing may be done in connection with normal duties ("in-service testing") or during an evaluation outside of normal duty hours.

#### b. Testing by Contract or Management Fiat

Privately initiated and administered testing does not implicate Federal constitutional protections. That is, a private company may require its employees to submit to testing without thereby raising questions under the Fourth Amendment (searches and seizures) or the Fifth Amendment (due



process). In general, employees have only such protections as may be provided by collective bargaining agreement.

One State (Oregon) has enacted legislation to regulate testing by employers, and certain State constitutional provisions might be construed to protect employees against private action in some circumstances. However, these are the exception rather than the rule.

As discussed in the ANPRM, the First Division of the NRAB has reviewed the history of practice under existing collective bargaining agreements and has concluded that *requiring* employees to submit to breath testing would be a unilateral change in working conditions not permitted under the Railway Labor Act. Award No. 23334; June 25, 1982. Other arbitrators exercising authority under section 3 of the Railway Labor Act are likely to follow this determination, unless the First Division should have occasion to issue an inconsistent award, at least until the *status quo* is changed by agreement, law, or regulation having the force of law.

#### c. Public Comments on Testing Options

This section will discuss the railroads' call for testing authority, reactions of other parties to the test options presented by the NPRM, and related comments of the parties on the uses and abuses of breath and body fluid testing techniques. Public comments on post-accident testing requirements are reserved for a separate section, as are specific kinds of test programs that FRA might require or authorize the railroads to implement.

**The railroad proposal.** The AAR presented the position of the railroads, who had agreed that FRA should nullify the First Division (NRAB) award, which would in turn permit them to use "state-of-the-art" testing devices. In the view of the railroads, FRA could, under section 202 of the Federal Railroad Safety Act, authorize such testing, without safeguards as to the manner of testing or use of the test results. The AAR included in its formulation of the proposal a regulatory provision that each employee subject to the Hours of Service Act is deemed to have consented "to the administration of chemical, toxicological or other tests for the presence of alcohol or drugs." In the AAR's view, such a regulation would not Federalize tests conducted by the railroads pursuant to FRA's authorization.

Notably, unlike the options envisioned by the ANPRM, the railroads' testing proposal would carry no affirmative

burdens. The railroads could test where they saw fit, but would not be required to test at all. The AAR noted that this approach would permit railroads to be "selective," concentrating on areas of known or suspected need.

**Rationale.** The railroads saw state-of-the-art testing in several different lights, but a general rationale was clearly discernible in each case. Those railroads that wished to use testing devices without specific cause (sometimes referred to as "random" testing) saw testing as a way to better detect Rule G violators, thereby increasing the perceived risk of detection among other employees and deterring future violations. The AAR envisioned that devices would be used for screening. Once a violator had been detected, supervisors would observe the employee and rely upon indications such as slurred speech, lack of balance and coordination, and the like, to make a case in the disciplinary proceeding.

Individual railroads had different plans and emphases. Several simply endorsed the AAR proposal as a sound way of providing enhanced detection and deterrence capability. The use of metal detection devices at airports was cited by one railroad as precedent for testing without specific cause. The railroad argued that the demands of safety clearly override any privacy interests of employees.

Recognizing the concerns of employees, one railroad proposed to use testing devices under guidelines to be worked out with their labor organizations. This railroad was willing to make resort to the EAP a matter of right for a first offense (in place of punitive discipline) if meaningful testing authority could be made available.

A senior officer of a major railroad testified that his railroad did not wish to burden its employees with mandatory testing done without cause, since it could impair labor-management cooperation. However, clarifying remarks of the railroad's counsel appeared to indicate that the railroad supported the grant of authority to test, even if it did not intend to exercise the full range of that authority. The railroad specifically noted its desire to require employees to submit to tests where there is a reasonable suspicion of impairment, and another large railroad indicated that it would only test on reasonable suspicion.

One railroad favored self-administered tests designed to encourage employees to refer themselves for professional help. Still another railroad believed it should be able to test under procedures "similar to highway safety." The procedures would

be part of regulations granting testing authority. (Test administered in furtherance of motor vehicle safety invariably include an element of cause, such as suspected intoxication or the occurrence of an accident.)

A large railroad appeared to limit its call for testing authorization to the use of devices that could be used without the aid of medical personnel. (Such authority would not extend to compulsory testing of blood.)

Two railroads specifically noted that random or selective testing could be used to discover chronic alcoholics who are able to hide their intoxication as a result of increased tolerance for alcohol and through learned behaviors that mask the usual signs of inebriation.

**Labor position on testing.** Employee organizations expressed vehement opposition to virtually all forms of compulsory testing. Representatives of the RLEA opposed random testing as intrusive and unfair to the 85 to 90 percent of employees who do not violate the rules. They believed that labor and management should concentrate on the use of bypass agreements to detect problem drinkers and eliminate support for volitional rule violators among their co-workers. Use of tests on reasonable suspicion was viewed as unnecessary, since arbitrators regularly uphold discipline based on normal observations. However, an RLEA witness agreed that "plea bargaining" does go on where evidence is weak.

The BLE thought that testing would tend to drive abusers to non-detectable substances and would be used by the railroads as an excuse for not taking other needed action. The BLE also noted the harassment potential associated with unchecked use of the devices (e.g., employees might be tested repeatedly and without reason, or individual employees might be unfairly singled out for reasons unrelated to their current fitness) and contended that "random" testing would offend Federal and State constitutional protections. BLE strongly contended that existing testing devices are not reliable and appended articles from professional journals that BLE believed supported that proposition.

Similar views were expressed by several system and local officers of rail unions and individual employees. However, a UTU member wrote in support of testing to identify persons who should be referred to EAPs. A locomotive engineer thought testing would help if it were done fairly, so long as the employee is provided adequate notice of the subject assignment. A State-level BLE official favored testing for alcohol where a specified BAC was

permitted and testing was done at a hospital. Another local BLE representative endorsed compulsory testing for alcohol or drugs on reasonable suspicion, but thought random testing would be an "affront" to most employees. A UTU local chairman thought testing should be used where a Rule G violation was suspected to protect both the railroad and the employee. Another UTU local chairman thought that testing in conjunction with scheduled physical examinations conducted by independent physicians was acceptable, but believed random testing of employees on the job would be wasteful and unfair.

The EAP director for the Association of Flight Attendants filed comments providing an additional perspective on testing. The Association contended that chemical analysis should not be the sole criterion on which judgment of impairment is based, since some chemically-dependent persons may function better while using the drug (due to increased tolerance) than while not using it (when withdrawal may cause a loss of control). Further, in the view of the Association, testing may cause persons who otherwise could function reasonably well because of increased tolerance to abstain from using the chemical, thereby resulting in withdrawal. The Association also contended that attempts at detection will drive abusers "further underground" and stresses the importance of a rehabilitative approach from the point of view of meaningful detection.

**NTSB.** The NTSB has formally supported testing only in the context of accident investigations and did not react to the AAR proposal. One NTSB witness expressed "disappointment" at the First Division Award barring testing, and another thought that compulsory testing should be considered by management and employee organizations (*i.e.*, not by FRA).

**State and local government.** Ten (10) of the States responding to the NARUC survey supported "random breath testing at major facilities and crew change points using breathalyzer apparatus," but 6 opposed. Eleven (11) supported testing on suspicion, but 5 opposed. (It should be recalled that most of the commissions responding to NARUC favored treatment, rather than dismissal, for the first offense.)

The Georgia Governor's Highway Safety Representative and a County Traffic Engineer apparently thought employees should be required to submit to testing under conditions similar to those observed on the highways. The Department of Utilities of the City of

New Orleans advocated periodic drug screens for a wide range of drugs, similar to existing requirements for New Orleans cab drivers.

**Private groups and citizens.** Support for compulsory testing came from representatives of B'nai B'rith and MADD, who did not comment specifically on the circumstances in which tests should be done. The Director of the National Public Research Institute introduced new technology offering promise for passive breath screening that he believed could be used to check all employees coming on duty at a particular point. The International Association of Chiefs of Police endorsed a regulation similar to the implied consent laws. The Washington Legal Foundation thought testing should be "encouraged." One consulting firm with experience in this area stressed the use of medical departments to determine fitness for duty, and another expressly endorsed pre-employment screening together with fair and enforceable drug urine screens (on a "random" basis).

One citizen favored testing in a general way, and one specifically favored testing before and after assignments. A witness with expertise in alcohol problems on the highway favored testing of all employees at on-duty points as a deterrent measure. A Washington attorney suggested that "random" testing be tried on Amtrak. He further noted that spot checks of recovering alcoholics could be used in a positive way to strengthen the individual's sobriety and encourage the railroad to return recovering alcoholics to service.

**FRA analysis.** In FRA's view, the polar positions taken by representatives of management and labor are both unrealistic. Breath and body fluid testing techniques involve varying degrees of perceived "intrusiveness," and it is not plausible to suggest that a Federal regulatory agency should alter the *status quo* with respect to employee consent to testing without specifying safeguards. FRA has an obligation under general principles of administrative law to assure appropriate regulatory balance.

Nor is the position of some employee representatives sustainable. Testing techniques can be used fairly and with precision, providing protection both to the person tested and other employees. Notably, sound use of reliable testing techniques could result in sober employees not being charged with rule violations and could lead to the improved documentation of cases against impaired employees. The availability of testing capability could do much to deter employees from drinking and drug use and to assist in

identifying employees who need help for chronic substance abuse problems. In this notice, FRA proposes several specific uses for testing techniques that can help the railroads to detect rule violations and deter future violations.

#### d. In-service Testing; Not for Cause

The use of testing authority most often advocated by the railroads is so-called "random" testing of all employees encountered at a particular point on the railroad (such as a crew change point). This screening of the target population would be done without specific or constructive cause. Such testing would measure the condition of employees while they are in service and subject to Rule G. Employees found to have violated Rule G would be punished by dismissal. Most employees tested would be found sober; the objective would be to find the statistically small group of employees intoxicated on any given day. If one or more such employees were detected, the word would spread, creating a general deterrent effect.

Testing could be done by use of breath testing devices (for alcohol only) or through collection of urine samples (for alcohol or drugs). However, it appears that most of the active support for "random" testing is limited to breath analysis. Accordingly, the discussion below is limited to the use of breath testing devices. Such testing could be done pursuant to a mere authorization by FRA or according to a programmatic procedure mandated by FRA (probably linking frequency of tests to the results of previous efforts).

**Non-discriminatory?** This "road block"-style testing is attractive because it does not single out any employee and appears to be inconsistent with harassment. The railroads, however, want flexibility to be "selective" in testing, presumably by targeting problem crews or locations. Selectivity could hold down costs and avoid burdening the majority of employees who obey the rules, but it could also facilitate alleged or actual harassment. There can be no doubt that FRA would be called upon to evaluate any such use of testing techniques, putting the Federal Government squarely in the middle of railroad disciplinary cases.

**Potentially costly.** Assuming testing would be done on a truly non-discriminatory basis (according to the model used by the only railroad that has attempted to do "random" testing), significant questions arise as to the level of resources necessary to achieve the desired deterrent effect. The railroads submitted no analysis or cost estimates providing any assurance that such

testing would be cost-effective, compared to other approaches. Although cost should not be a factor if the railroads are permitted to scale their efforts to a level of results they choose, it would be a factor in a mandated program. Devices must be purchased and maintained, personnel must be trained, ongoing salary costs must be met, and at least some train delays must be factored in. Positive tests using preliminary screening techniques must be followed by evidential quality test in a controlled temperature environment. Further, costs could rise considerably if employees elect to resist testing procedures.

It should be noted that under any interpretation of the REAP Report statistics, most employees comply with Rule G most of the time. Thus, "random" testing will involve much wasted motion. Unless the tests are performed with some regularity, few if any violations will be found and the deterrent effect of the program will be lost. Thus, maintenance of level of effort would be important. (By analogy to highway safety, it is not enough that the drinking driver knows he could be stopped. Rather, he must sense a very real possibility that he will be stopped.) If random or programmatic testing of this kind could produce real safety benefits, and FRA does not doubt that it could, it would nevertheless require a major commitment of resources. It is by no means clear that a significant number of railroads would be willing to make such a commitment, even if the requested authority were conferred.

*Unprecedented.* There is no precedent of which FRA is aware for a system under which a subset of the general civilian population is required to submit to breath testing wholly without cause. Certainly no Federal civilian agency maintains such a program.

State and local police departments are experimenting with sobriety checkpoint programs in which all motorists or randomly selected motorists are stopped and interviewed. However, these motorists are not required to participate in testing unless the interviewing officer has reason to believe that the motorist is impaired. Neither airline pilots nor truck drivers nor any other class of employee is required by Federal regulation to submit to testing without cause.

In FRA's view, the presently documented safety record of the railroads with respect to alcohol and drugs does not warrant making the railroads a testing ground for random breath analysis. FRA does not suggest that the railroads have done all they need to do or that further reductions in alcohol and drug-related accidents are

not feasible. To the contrary, much progress appears to be possible using available means and the additional tools discussed below. However, it appears that most railroads are not experiencing the kind of exceptional problems that would warrant wholesale departure from surveillance norms prevailing in other transportation modes.

*Labor objections.* Employee representatives are adamantly opposed to testing without cause. Although some may dismiss this opposition as near-sighted or unreflective of rank and file opinion, it is important to understand the dimensions of real concern expressed. In the first instance, labor representatives see testing as a tool that could be used to reinforce the existing approach, which relies heavily on punitive discipline. The present opportunity for improvement of employee assistance programs and development of referral systems that include employee participation would, in labor's view, be lost. If testing is perceived by employees as unfair or capricious, a further wedge will be driven between labor and management on Rule G matters and the development of rehabilitative alternatives will continue to lag.

Employee representatives offer as an immediate alternative to testing the adoption of bypass agreements. Such agreements, it is argued, will involve employees in maintaining the sobriety of their co-workers and help produce referrals of chemically-dependent persons for appropriate treatment.

Employee representatives also see testing without cause as inherently flawed. Almost by definition, "random" testing is likely to increase employer discretion while reducing employee confidence in the fairness of the system. As noted above, Rule G technically requires that employees report to work with no alcohol in their blood, regardless of the length of notice provided for the assignment in question. Although railroad management could elect to overlook low BAC readings, an unconditional authorization for testing would certainly place no limits on management discretion. Given the adversarial context of railroad labor-management relations, many employees would fear that the railroads would use a testing authorization or mandate to punish those employees otherwise in disfavor (e.g., for submitting a disputed claim for additional wages or benefits), while excusing other employees.

*Provisional conclusion.* Further documentation of the human costs of alcohol and drug-related accidents may indicate a need to accept the limitations, costs, and apparent consequences of

"random" testing. In particular, such testing may be warranted on particular portions of railroads where a culture of alcohol or drug use has taken root.

However, FRA cannot discern a general need to conduct "random" tests, sanctioned by Federal regulations, on a national basis. That is, FRA is not convinced that existing information warrants regulatory action to implement this option, particularly given the availability of other, better targeted measures.

#### *e. In-service Testing on Reasonable Suspicion*

At the present time, many railroads offer employees suspected of Rule G violations the opportunity to provide blood or urine samples for analysis (or take a breath test). Employees usually refuse such requests, and the refusals are admitted in the disciplinary hearing and considered by the arbitrators.

However, there would be considerable benefit in increased use of testing techniques where there is some reasonable suspicion that the employee may be currently impaired by alcohol or drugs. Testing would help confirm impairment of employees who are skilled at concealing their intoxication, lead to identification of drug users who display marginally unusual behaviors, and dispel suspicion where behaviors are the result of illness, fatigue or other causes that should be addressed on their own merits. Reliable test results would improve the quality of disciplinary hearings and provide much more objective information for review by arbitrators, particularly where they are inclined to question the severity of the sanction applied by the railroad. (See Award No. 2347, Fourth Division, NRAB; Dec. 10, 1968 (indicating that carrier should have provided opportunity for sobriety test "before stigmatizing a supervisory employee with many years of service" \* \* \* with the serious charge of violating Rule G").) The improved quality of documented evidence in Rule G cases would also reduce the temptation for local union officers and the railroads to settle out Rule G charges for reasons external to the merits of the particular violation. The issues related to testing for cause are further discussed in the section-by-section analysis below.

#### *f. In-service Testing for Categorical Cause*

There are at least two conditions (not involving a suspicion of current impairment by a specific employee) under which it would be reasonable for the railroads to require employees to submit to tests of limited intrusive

effect, such as analysis of breath or urine. In some of the following cases where a drug urine screen is positive, it may also be reasonable to require that the employee immediately provide a blood sample.

**Operational failure.** Employees involved in a material operational failure, such as passing a stop signal, excessive speed, a run-through switch, or the like could reasonably be expected to submit to testing, recognizing that supervisors on the scene will not be expert in identifying or evaluating all of the outward manifestations of impairment—particularly where drugs other than alcohol are involved.

Occupational alcohol and drug experts generally contend that the role of the supervisor should be to evaluate performance, not diagnose impairment. However sound, this approach leaves many questions unanswered where employees are on duty in safety-sensitive functions. Supervisors have to make on-the-spot decisions concerning whether to remove employees from service and charge them with rule violations. One partial approach to handling the problem is to administer appropriate tests to confirm or exclude alcohol and drugs as factors in the observed failures. This concept is included in the proposed rules below.

**Accident.** Obviously, some accidents involve operational failures by employees on the scene and some do not. However, determining whether a given accident was caused by a human failure, equipment defect, or a track defect may take some time. It would therefore be reasonable for a railroad to require employees to submit to testing immediately after the occurrence. As noted below in the discussion of mandatory tests following major accidents, failure to test immediately will result in the loss of valuable information. This approach is also included in the proposed rules.

#### g. Mandatory Testing After Major Accidents

On March 7, 1983, the National Transportation Safety Board recommended for the first time that FRA—

With the assistance of the Association of American Railroads and the Railway Labor Executives Association, develop and promulgate effective procedures to ensure that timely toxicological tests are performed on all employees responsible for the operation of the train after a railroad accident which involves a fatality, a passenger train, releases of hazardous materials, an injury, or substantial property damage. (R-83-31.)

Although the AAR and RLEA have been very helpful in advancing this review of rulemaking options, it is clear from the comments discussed below that neither has an organizational interest in mandatory post-accident testing. Nevertheless, FRA agrees that this measure is an essential one if the consequences of alcohol and drug use are to be adequately documented and solutions are to be developed and fully implemented.

**Public comments.** NTSB witnesses advocated post-accident testing to "allow the Board to gather a truly accurate picture" of accident causes and to deter employees from violating regulations concerning alcohol and drug use. This option was supported by 16 of the States responding to the NARUC survey, and only two States opposed. The California PUC endorsed the proposal in a separate submission.

A Washington attorney favored mandatory post-accident testing and contended that the railroads' concern over suits under the Federal Employers Liability Act skews present reporting. He believed that post-accident testing would assist in (i) providing a factual basis for accident prevention analysis, (ii) identifying problem employees, and (iii) discouraging non-addicted employees from drinking or using drugs on the job. He advocated that the requirement be applied to accidents involving a fatality, injury requiring hospital treatment, or hazardous material evacuation.

Additional support was expressed by Citizens for Safe Drivers and MADD.

The International Association of Chiefs of Police believed that any requirement should be selective, since "a mere accident does not raise a question of probable cause." A consulting firm favored testing "where human error is possible."

Acting through the RLEA, employee representatives indicated a willingness to accept post-accident testing "consistent with Federal policy in other transportation modes." The FRA panel noted to the RLEA witness that testing of surviving crew members is not uniformly required in other transportation modes, and the witness again affirmed that the RLEA favors a consistent policy on this point. A State-level BLE officer believed that tests should be conducted with respect to categories of accidents identified by agreement. Spokesmen for a UTU local favored tests administered by qualified medical personnel, but thought such tests would be insufficient to deal with the problem. A local BLE legislative representative favored post-accident testing, but a BLE General Chairman

thought tests should only be conducted where there is "probable cause."

The AAR saw no major problems with post-accident testing, but did not believe it would serve as a deterrent and wanted FRA to avoid becoming entangled in the issue of how to discipline employees who refuse testing. Two major railroads repeated the theme that post-accident testing would not necessarily deter. At least three major railroads thought that tests should be required only where a human factor appeared to be involved in the accident or there was specific concern that an employee was impaired. Outright support for mandatory post-accident testing was expressed by two major railroads and by a third railroad that believed a requirement for testing would relieve the railroads of "civil liberties litigation."

One railroad noted that testing in connection with grade crossing accidents would result in an undue delay of commerce and that consideration should be given to accidents that occur many miles from medical facilities. Another railroad also pointed out the problem of numerous grade crossing accidents.

One railroad thought post-accident testing should be allowed, but not mandated. Two railroads expressed concern, but not formal opposition. One of them believed the logistical problems associated with testing could be substantial.

**FRA conclusions.** FRA believes that mandatory post-accident testing after major accidents is essential to defining the full extent of alcohol and drug involvement in the railroad safety problem and can assist in bringing home to employees the seriousness with which the Federal Government views the problem. The need for testing and the issues that it raises are discussed below in connection with the proposed rules.

#### h. Drug Screens; Physical Examinations

Although FRA did not specifically raise the use of drug screens in connection with employee physical examinations in the ANPRM, the public comment cycle and FRA's consultations with the National Institute on Drug Abuse have brought this option very much to the fore. Based on existing information, FRA believes that most railroads require pre-employment physical examinations of virtually all final applicants. Further, most railroads require periodic physical examinations for train and engine employees and certain other employees. Such examinations provide a prime

opportunity for the railroads to detect symptoms of alcohol and drug abuse (including addiction). The context of these examinations is external to the normal work environment. That is, employees are not subject to the threat of punitive discipline; and they generally perceive the examinations as fair and unbiased. Most physicians have diagnosed or treated chemical dependence, although many would not claim to be expert in the field. Some carrier medical departments already have close working relationships with the EAPs.

*Purpose.* Physical examinations can be used productively to identify alcohol and drug-dependent individuals even without the use of drug screens. Information received in this proceeding suggests that most railroads ask physicians to evaluate employees for alcohol and drug problems, but a significant minority do not. Consistent with that pattern, some EAPs apparently receive numerous referrals from carrier medical departments, but others evidently do not.

FRA understands that the symptoms of alcohol and drug abuse are often ambiguous and that many physicians are particularly reluctant to make a diagnosis of dependence based on the limited data obtainable through most occupationally-oriented examinations. However, failure to use physical examinations as a part of an overall evaluation system represents a major waste of resources. Regular inclusion of drug screens (including a check for alcohol) could powerfully augment the diagnostic tools available to examining physicians and focus the attention of physicians on signs of abuse that, standing alone, might not be adequate to support a diagnosis. That is, a positive test could be used as a part of the overall medical evaluation.

Obviously, drug screens done in connection with physical examinations could not and should not be used as the basis of punitive discipline. However, they could be used by carrier medical departments to help identify persons who are using drugs that present special risks for the employee engaged in rail operations, persons who are using illicit drugs "recreationally" and who may therefore require enhanced supervisory oversight (to assure use does not extend to duty hours), and alcoholics who are unable to abstain from the use of alcohol even for a physical examination.

*Practicality.* According to the National Institute on Drug Abuse, recently developed drug screening techniques are highly reliable and clearly affordable. Reliable indications of the presence of specific substances

can be achieved at costs as low as \$10 per urine sample. Many of the physical examination protocols currently in place involve routine or elective urinalysis for other disorders, so drug screens would not impose any new burden on employees. Nor should they lead to significant objections from employee representatives.

FRA has been able to identify only one major railroad, a western carrier, that routinely submits urine samples to drug screens. The railroad conducts screens in connection with all physical examinations in the following categories:

- Periodic examinations of locomotive engineers.
- Pre-employment (all crafts).
- Return to service (all crafts).

Approximately three percent of tests (including pre-employment) are positive for "amphetamines, opiates, barbituates, various tranquilizing substances [or] various pain medications." The railroad's submission also indicates that the results of company-required physical examinations "identified multiple engine service employees with alcohol and drug dependent problems."

The railroad does not test for alcohol or marijuana at the present time, but is considering adding marijuana to the substances tested. In addition to the testing described above, examining physicians do look for symptoms of both alcohol and drug dependence.

This railroad's urine drug screen program has been in place on the railroad for at least 10 years. All samples are processed at a central laboratory. Positive samples are retested and the quantity of drug present in the urine is determined. The railroad's medical director estimates the cost of a complete test for a positive sample is \$8 to \$10. Samples are retained for 6 months in case any dispute arises concerning the test results. In addition to screening applicants for employment, the railroad uses the test results to identify employees for appropriate treatment through the railroad's EAP.

*Industry status.* Four railroads reported that examining physicians use drug screens where indicated, and FRA suspects that this may be the case in other instances, as well. However, serious abuse of many drugs may not be evident upon casual examination, and testing in response to clinical indications is a much different use of the technique than that reported by the railroad that uses urine drug screens as a matter of routine.

FRA is frankly bewildered that a major railroad has utilized this technique with apparent success for an

extended period without its having been tried by other Class I railroads. When FRA asked other participating railroads whether they were using drug screens as a part of physical examinations, only one other railroad reported that it intends to incorporate this procedure into its examinations. A second said it has this approach under active consideration. One railroad thought this approach was of "questionable legality," but others indicated there are no legal or contract impediments to this form of testing, apparently because they have retained the ability to set medical standards for employment.

FRA believes that all railroads should carefully consider the implementation of drug screens in connection with periodic physical examinations. Commenters are correct in noting that this method will not detect all alcohol or drug abusers, particularly many of those able to abstain prior to the examination. However, the experience of companies and other organizations that have used the technique is that many drugs users do not, in fact, abstain, either because they cannot or because they give insufficient thought to the matter. No method will detect all abusers, nor can one extrapolate from presence of many drugs to the conclusion that the drug is being abused. Nevertheless, drug screens can provide significant information that can prove useful in assuring employee fitness and identifying employees who need rehabilitative help.

*Pre-employment examinations.* FRA believes that there is at least one setting in which a Federal mandate for drug screen is indicated. Specifically, drug screens should be performed in connection with all pre-employment physicals. The rationale for inclusion of this alternative is discussed below in connection with the proposed rules.

### 3. Criteria for Supervisory Observations

The ANPRM solicited comment on mandatory criteria for supervisory observations of operating employees. As noted above, testimony received at the hearings clearly indicated that Rule G enforcement efforts vary considerably from railroad to railroad, both with respect to level of effort and approach. Further, employee representatives pointed out that Rule G is not consistently enforced. More frequent observations could improve employee awareness of the railroads' commitment to alcohol and drug policies, foster detection, and deter non-addicted persons from violating Rule G. More effective incorporation of Rule G observations into efficiency testing



programs would provide FRA an enhanced capability to monitor carrier programs.

*Public comments.* NTSB thought that FRA should require railroad management to improve supervision of employees. An NTSB witness suggested that supervisors should, at a minimum, meet train crews where they go on duty; but NTSB also noted that it is not practical to meet every crew every day. NTSB did not propose specific criteria for the number of supervisory checks. A private citizen also endorsed improved supervision.

Eleven (11) States responding to NARUC indicated support for improved operational testing by supervisors, but NARUC did not indicate what form regulations should take.

The spokesman for the International Association of Chiefs of Police noted that alcohol-impaired employees can be detected with a high degree of reliability through use of the horizontal gaze nystagmus procedure now in use by some police departments. (This procedure consists of observing eye movements and is rated as highly accurate by the Department of Transportation's National Highway Traffic Safety Administration.) However, a consultant with expertise in controlling drug use stated that supervisors are not likely to be able to detect use of most kinds of drugs.

The industry parties, labor and management, agreed that effective supervision is a key element in any successful deterrence program. However, the parties did not suggest means for promoting such supervision through regulations. The AAR opposed Federal criteria, and the railroads that addressed the issue opposed requirements that involved arbitrary quotas or excessive paperwork. The railroads generally claimed that current supervision is as effective as is practical, that employees are routinely checked for Rule G compliance in conjunction with normal supervisory activities (including efficiency tests and inspections), but that records are not kept because it would not be realistic to make entries for every supervisory/employee encounter. A commuter railroad said that supervision on its property was constant and that Federal regulations are not needed. Two railroads have made special efforts to board trains and check crews with the hope of deterring alcohol and drug use. Emphasizing the railroads' call for in-service testing authority, two railroads contended that supervisory checks can detect only obviously intoxicated employees.

One railroad appeared to support Federally-established criteria to reinforce to employees, as well as supervisors, the need for prevention. The railroad said it checks each of its crews at least once a month. (This railroad also has an ambitious management training program devoted to alcohol and drug problems.)

*FRA analysis.* FRA agrees that improved supervision is a key to better compliance. Even employees who are capable of hiding their intoxication will be less likely to drink if they are closely supervised. Frequent supervisory contacts are necessary to build trust and assure that employees understand the extent of management concern over compliance with all safety and operating rules. However, specifying the manner and frequency of supervision on disparate railroads operating over a 200,000 mile rail system through a single set of criteria is not feasible. Determining the level of supervisory effort that may be warranted at any given place and time is fundamentally a matter of good management, something that cannot be mandated by regulation.

FRA has learned that many railroads do not include Rule G as an integral part of their program of operational tests and inspections, thereby departing from the intent of FRA's Railroad Operating Rules (49 CFR Part 217). FRA expects that all railroads will examine their current practices to ensure that uniform and thorough coverage is provided and that observation results are made an integral part of the operating test program. Accordingly, FRA will be working with the AAR and individual railroads to require better compliance with the requirements of existing railroad rules and Federal regulations. In addition, inclusion of alcohol and drug rules in Part 218 will have the effect, through section 218.11 of the existing rules, of adding specificity to current reporting requirements for operational tests and inspections and provide better data on Rule G violations charged by the railroads.

#### 4. Co-Worker Certification

In the ANPRM FRA requested comment on a requirement that the conductor or engineer observe each member of the crew at the beginning of each tour of duty and certify in writing that, to the best of the observer's knowledge and belief, none of the members of the crew is in violation of Rule G (or a Federal equivalent). A similar certification could be required at the end of the tour of duty.

*Public comments.* The railroads, through the AAR, opposed any certification requirement, noting that

many employees already advise supervisors of developing problems. Several individual railroads opposed the option because they believed it would be ineffective, or would produce unnecessary paperwork. One railroad cited possible delays associated with required observations. However, one railroad thought the approach would serve the ends of detection and prevention, although it believed certification would be difficult in many operations. A major railroad said that the conductor is already responsible for the fitness of members of the crew, indicating that certification would not add a new dimension to existing requirements.

The only railroad to institute co-worker certification on a voluntary basis said the time and cost associated with the program is "insignificant" and reported some positive effect in "accentuating the importance of Rule G." However, the railroad said that certification does not overcome the problem of concealment. Ironically, the program has resulted in the identification of only one individual who was unfit for duty, but that instance was cited by the NTSB in its list of accidents and incidents involving alcohol and drugs submitted to this docket. It is entirely possible that the program has also resulted in employees being persuaded to "mark off sick" after reporting to work while impaired.

Employee representatives opposed certification for a variety of reasons, including ineffectiveness. The RLEA spokesman said that "it is sheer folly to think that a co-worker and probable friend would turn in a friend and member of his crew." He added—

The REAP Report has already demonstrated the tendency of a co-worker to protect another. Adding another layer of Federal rules like this will cause even more elaborate protecting of an employee needing treatment and perpetuate the cover up.

Two UTU members suggested that employees are not qualified to ascertain the fitness of their co-workers, and one BLE system-level officer referred to the certification form in effect on one railroad as a "stool pigeon form." The BLE General Chairman for that railroad noted that the organization had gone along with the certification procedure, but thought self-certification was a more appropriate procedure.

The NTSB made no specific comments on this option, except to say that it would not be a "viable program." But the head of a consulting firm with expertise in occupational drug abuse programs endorsed certification as a measure that would increase awareness

among employees; and a Washington, D.C., attorney thought this approach would also act as a deterrent.

**FRA analysis.** FRA believes co-worker certification would involve significant paperwork burdens and might very well be viewed as a substitute for more meaningful and direct measures. Critically, this approach would seek to attack the conspiracy of silence among employees without providing to employees any assurance that rule violators whom they are asked to identify will be provided the opportunity to participate in rehabilitative or educational programs, in lieu of punitive discipline.

#### 5. Improved Accident Reporting

On March 7, 1983, the NTSB recommended that FRA—

With the assistance of the Association of American Railroads and the Railway Labor Executives Association, develop and promulgate a requirement that alcohol/drug abuse involvement in accidents/incidents be fully reported to FRA. (R-83-32.)

The ANPRM suggested that FRA could require the railroads to report any evidence of suspected impairment of any employee involved in a train accident or injury. Current train accident reports provide information concerning alcohol or drug involvement only where the railroad believes that impairment was the primary or contributing cause of the accident. Injury reports contain no information at all concerning alcohol or drug involvement.

**Public comments.** The NTSB stressed the need for improved reporting, but did not indicate what specific requirements NTSB would like to see included in new regulations. Representatives of Citizens for Safe Drivers and MADD endorsed the NTSB recommendation, as did one State public utilities commission.

Employee representatives believed that accident reporting will improve only when employees directly involved in the accidents are able to submit their own view of the events.

The railroads generally did not offer strong views on this option. One railroad opposed as unduly burdensome any requirement that a carrier officer with knowledge of the facts separately certify each rail equipment accident report (used to report train accidents). A commuter railroad thought any further reporting requirements would be redundant. A freight railroad stated that there was no cover-up of alcohol or drug accidents on its property. Another major railroad opposed any expansion of existing requirements, but thought that alcohol

and drug cause codes used for train accidents could profitably be included in the existing occurrence codes for injuries.

**FRA analysis.** FRA agrees with the NTSB that existing reporting mechanisms have proved inadequate. This issue is further discussed below.

#### 6. Promotion of Voluntary Programs

The ANPRM suggested that, as an alternative or complement to regulation, FRA could intensify its promotion of voluntary programs that address the alcohol and drug problem. These efforts include EAPs, bypass agreements, and education or awareness programs, each of which are discussed above from an historical point of view. FRA could issue advisory standards for programs, promote the adoption of standards by industry groups, or simply continue to play the role of a facilitator. This section will discuss the merits of these approaches as seen from the point of view of participants in the rulemaking and the role of FRA in promoting or mandating their adoption.

**Public comments on EAPs.** Most commenters who addressed this subject, including the National Institute on Alcohol Abuse and Alcoholism, believed EAPs are an important ingredient in an over-all safety program; and some thought the EAPs would benefit from increased resources. NTSB thought that employees should be fully rehabilitated before returning to work, unless they are provided enhanced supervision.

A Washington, D.C., attorney who supports EAPs said the relapse rate among recovering alcoholics after the conclusion of in-patient care is about forty percent. He added that treatment must be continuously reinforced. The EAP must be independent and able to make key decisions, particularly with regard to assuring that the employee goes back to work soon enough, but not too soon. This commenter believed that treatment at company expense should be provided only one time; and employees who experience relapses should not be permitted to return to work for at least one year. He also stressed the importance of volunteers in follow-up efforts, the role of union in assuring that the recovering alcoholic is assigned to work with supportive co-workers, and the utility of alternative housing at away-from-home terminal to assure an alcohol-free environment.

One MADD representative suggested that recovering alcoholics should not be returned to service until the end of a full year. Another MADD representative noted that rehabilitation of railroad

employees afflicted by alcoholism will also foster highway safety.

A consultant on occupational drug programs noted that EAPs do not deal directly with recreational drug use, a problem that can be addressed only through a "behavioral modification" approach.

Seventeen (17) States responding to NARUC supported rehabilitation of first offenders, in lieu of punitive discipline, but 2 of the 17 "qualified their responses by noting that employees in rehabilitation, although retaining their jobs, should not be permitted to perform any safety related functions during their rehabilitation period."

The RLEA detailed those elements necessary, in labor's view, to a successful EAP, including (i) a clear choice by the employee whether to accept help or be subject to discipline, (ii) management recognition that alcoholism and drug abuse are health problems requiring treatment, (iii) industry-wide commitment to the program, (iv) integral labor union involvement that begins at the inception of the program, (v) a "rehabilitative attitude" by management (with dismissal reserved for cases where rehabilitation fails), (vi) a clear distinction between the handling of "social drinkers or drug users and the problem employee," (vii) extensive education and publicity concerning the program, (viii) confidentiality of employee participation and EAP records, (ix) adequate insurance coverage to finance treatment, (x) systematic and ongoing program evaluations, (xi) a sufficient number of competently trained counselors, and (xii) effective volunteers as a program resource. The RLEA felt that only about one-third of EAPs are currently adequate when measured against these standards, and some employee representatives indicated that it might eventually be necessary for the unions to establish their own counseling and treatment programs, similar to those operated by unions representing employees of commercial airlines. Reflecting the difficulty associated with eliciting employee confidence, a local chairman on a railroad with a very well established EAP said that the program has no integrity, since it operates as an arm of management.

The AAR did not take any position on the status or function of EAPs, reflecting the divisions among the railroads with respect to the level of attention and resources that they deserve. The growth and newfound maturity of some of the EAPs is discussed above. It may be noted that a railroad that claims a high



penetration rate also said that "even the results of current programs are inconclusive and \* \* \* any expansion must clearly be viewed as experimental for a number of years."

Other railroads are less reserved in their descriptions of their programs. For instance, a major railroad with a program almost 10 years old estimates that it saves \$14 in costs for every \$1 invested in the EAP. This is based on a 72% reduction in outlays for injuries, sick leave, grievance costs, and the like, among treated employees. The railroad is particularly gratified that it is now getting a much higher percentage of referrals before the subject employees are involved in Rule G violations.

One railroad that operates principally in Canada said that it is willing to finance up to two courses of treatment for a dependent employee, but this assistance is "completely separate and apart from Rule G." This separation of punitive discipline from rehabilitation is characteristic of most railroads that do not have bypass agreements, but one railroad permits alcohol-dependent employees to avoid punishment while dismissing non-dependent employees who are found to have violated Rule G.

At least one railroad has a formal labor advisory board for its EAP but does not claim a high penetration rate. Another railroad with a low penetration rate believes that its program could be greatly expanded if union personnel were more deeply involved.

None of the commenters offered clear suggestions as to how EAPs could successfully deal with social drinkers and recreational drug users who are unlikely to require, and are unlikely to respond to, the structured and well known treatments indicated for the chemically or psychologically dependent. In response to an FRA question, and NTSB witness indicated that he believed educational sessions administered by the States for drunk drivers have not been notably successful.

**Public comments on bypass agreements.** Employee representatives advocate bypass agreements as a means of assuring employee participation in identifying persons who need help. The unions and some railroads believe that these agreements can also deter rule violations by solidifying co-worker resolve not to tolerate conduct that may endanger all members of the crew. The NTSB commented favorably on the emergency of bypass agreements, but again noted the importance of assuring that the employee is rehabilitated. Further support for bypass agreements on the UP model came from a representative of MADD.

However, the success of bypass agreements remained a matter of contention within both management and labor ranks. A representative of the BLE, while asking FRA to defer regulation, took the position that bypass agreements are "experimental." As noted above, the agreements often contain quick cancellation clauses, suggesting reservations on both sides. A UTU local chairman pointed out that the statistics supporting the success of the UP bypass agreements (reported in the ANPRM) are not fairly reflective of normalized trends, and a BLE general chairman on a major railroad referred to the bypass agreements as "snitch agreements."

The railroads took widely varying positions on bypass agreements. The AAR believed that voluntary referral mechanisms of EAP programs already implement the essence of the bypass concept. One railroad expressed a willingness to use the bypass concept if chemical testing is available to increase surveillance of its work force. Another railroad opposed the trend to bypass agreements as "undermining firm discipline," but agreed that it would have less objection if punishment can be avoided only where detection was effected as a result of a co-worker report. The two bypass agreement railroads represented in the hearings noted that the agreements were only a part of an overall prevention, detection, and treatment effort, but both were well satisfied with the results to date. FRA was not able to identify any additional railroads that are actively considering bypass agreements at the present time, but at least one railroad said it had "no problem in considering" the concept; and another said it would react with interest if it ever gets a request from its employees to consider the idea.

Three railroads opposed bypass agreements on the grounds that discipline is an essential element in convincing chemically-dependent employees that they need help, and one railroad thought that such agreements "extend further \* \* \* the number of chances a problem employee receives."

**Public comments on education/awareness program.** The commenters who addressed education and awareness programs, including MADD representatives, union spokesmen, and a consultant with expertise in occupational drug programs, generally supported an increased level of effort. As discussed above, a minority of the railroads have active education and awareness efforts underway.

**Public comments on FRA role.** The commenters generally favored FRA promotion of sound EAPs and

education/awareness programs, but most offered little guidance concerning what strategies FRA should adopt. The head of a consulting firm with expertise in occupational drug programs stressed that FRA should not try to regulate the details of railroad programs. A State public utilities commission suggested that EAPs and bypass agreements should be mandated by FRA, in order to respond to the concerns of labor that management is only interested in discipline.

The Brotherhood of Railroad Signalmen took the position that, if FRA felt compelled to regulate, the only requirement should be that the industry parties adopt bypass agreements. One UTU spokesman thought that FRA should give the parties a time certain within which to negotiate bypass agreements and thereafter, if agreements are not reached, mandate the bypass concept by regulation. Another thought FRA should provide guidelines and time limits within which the parties could work. However, a third UTU witness (a local officer) disclaimed any interest in a Federal bypass requirement.

The AAR thought there was no basis for FRA either to encourage or discourage adoption of the agreements until more information is available, and it seems clear that none of the participating railroads would favor FRA efforts to require the use of this option. At least two railroads stated outright opposition to any Federal requirement for bypass agreements or policies.

One railroad suggested that FRA could assist smaller railroads in identifying alcohol and drug treatment resources in their areas, and there appeared to be considerable general support for FRA assistance in developing educational materials.

None of the commenters endorsed issuance of national advisory standards for voluntary programs, and none responded to the suggestion of the ANPRM that FRA could promote industry standards for these programs.

**FRA analysis.** FRA is convinced that safety can be enhanced by EAPs, bypass agreements having the full support of employees, and education and awareness efforts directed at both employees, and supervisors. FRA has been encouraging the establishment and improvement of EAPs for a full decade, and shares a part of the credit for the strides taken by the railroads in reaching problem drinkers. EAPs offer the principal means of reaching troubled employees before their problems manifest themselves in accidents or aggravated rules violations of the kind

that are most likely to be detected and result in disciplinary action. However, the EAPs have not yet shown themselves capable of dealing with the social drinkers and recreational drug users who likely account for most of the instances of on-the-job impairment.

Bypass agreements and policies offer a major hope for uniting employees and employers behind a common fitness policy. The agreements provide powerful leverage for the application of peer concern and should assist in generating referrals to credible EAPs. Further, they promote active disapprobation of alcohol and drug use on the job, thereby fostering prevention.

Properly understood, agreements that offer the bypass option only in the case of a co-worker report present almost no risk that employees will perceive the bypass as a "free bite at the apple," since they leave in place the constant threat of severe punishment in the event a supervisor detects a violation. It is clear that few rail managers understand this point, and it is equally clear that many local and system-level union officers share their confusion.

Education and awareness programs also must play a role in preventing alcohol and drug-related accidents. Employees will not be convinced that the railroads are serious about preventing on-the-job impairment unless they are frequently told that this is the case. Nor will they be convinced that their substance abuse habits endanger safety unless they are educated in the effects of alcohol and drugs and the real-life consequence of abuse on the railroads.

*Acceleration of industry trends.* The railroad industry has made significant strides in implementing employee assistance programs, and several railroads are experimenting with "bypass" policies or agreements that mitigate or hold in abeyance the sanction of dismissal. However, the pace of progress is unacceptable. Neither labor nor management is seriously pressing for the kind of national solutions that this problem requires. All railroads need to take action now to encourage early referrals of troubled employees and to break the "conspiracy of silence" among employees by making it possible for co-workers to participate in rule enforcement without endangering the offender's livelihood. If employees view the Rule G system as just, they will refuse to work with impaired co-workers, thereby promoting voluntary referrals and deterring volitional rule violations.

Because there is no present indication that these issues will be addressed in

national collective bargaining, FRA is proposing specific, mandatory policies to do the job. Those policies are discussed in connection with the proposed rules.

*National voluntary program.* The development of sound EAPs and education/awareness programs is also an area where FRA involvement is clearly indicated. These measures, which fall under the general rubric of "prevention," are the subject of ongoing voluntary efforts out of the "National Planning Conference on Voluntary Measures to Prevent Alcohol and Drug Use in the Railroad Industry," held in Washington, D.C., on November 14-15, 1983. Since the National Planning Conference, committees and subcommittees consisting of labor, management and FRA representatives have begun to define a national agenda for cooperative action.

At the same time ANPRM is this docket was issued, FRA affirmed its commitment to, and continuing support of, voluntary prevention and treatment programs. Subsequently, FRA announced that it would host a national conference to explore options for maintaining and upgrading voluntary alcohol and drug abuse programs. FRA met with a representative advisory group of railroad EAP directors and officials from three major rail unions to organize and structure the proposed conference. The advisory group agreed to a planning conference format. The goals of the conference were (i) to form a consensus on activities that would upgrade voluntary programs and (ii) to establish a national steering committee to achieve those goals.

The National Planning Conference on Voluntary Programs to Prevent Alcohol and Drug Use in the Railroad Industry was held in Washington, D.C., on November 14 and 15, 1983. Approximately 110 senior officials from the carriers and labor organizations participated.

At the conclusion of the conference the participants formed a two-tiered planning committee. Each participating organization assigned a senior executive as a steering committee member and a resource person, with expertise in alcohol and drug abuse, as a working group member. Twenty railroads and five labor organizations joined the planning committee.

The working group held its first general session in December of 1983, and subcommittees of that group are continuing to meet on a regular basis to develop concrete initiatives. FRA anticipates that the work of the planning committee will produce advances in the quality and effectiveness of EAPs and

will assist in the development of improved education and awareness efforts. These efforts will complement the regulatory program proposed in this notice.

FRA stands ready to assist in the establishment of research efforts and demonstration projects that may evolve from the work of the planning committee. Further, FRA will continue to promote emphasis on alcohol and drug initiatives on the regional or local level through the work of labor-management task forces.

*Special note on the relationship of rehabilitation and discipline.* One commenter expressed a concern that heavy reliance on EAPs in the railroad industry has the potential to undermine rule compliance. It may be, as the commenter suggests, that the implementation of EAPs by some employers outside the railroad industry has sometimes been accompanied by the relaxation of disciplinary policies and has thereby eroded the structures necessary to facilitate confrontation and constructive change among substance-dependent employees. Some employers or arbitrators, lacking proper regard for the fact that lax discipline can actually sabotage treatment and encourage relapses, may have decided to give employees multiple chances at rehabilitation even when performance has failed to show improvement.

However, FRA perceives no danger that the railroad industry is headed down this path. The railroads generally follow the rule of "safety first," withdrawing known problem employees from service and keeping them out of safety-sensitive functions until they have demonstrated that they are competent to resume their duties. Managers and employee representatives alike favor dismissal of second offenders. Further, where employees have committed Rule G offenses and are permitted to enter a treatment program while retaining their employment status (either by agreement or carrier policy), successful completion of the treatment is always a condition of continued employment. That is, the "discipline" of dismissal is not discarded, but merely held in abeyance. These approaches are sound, and FRA agrees with the commenter that they should not be diluted based on the misguided view that "understanding" can take the place of discipline.

Moreover, it is important to understand that there is no radical dichotomy between "discipline," on the one hand, and "treatment," on the other. Both in the dictionary and the occupational environment, discipline

has many meanings; and "punishment" is only one of them. Among the other definitions are "self-control and "control gained by enforcing obedience and order." Occupational discipline can be achieved by many means. In particular, rehabilitation for alcohol or drug dependence is itself a structured process that involves both the acceptance of discipline and the learning of self-discipline. Treatment may involve greater short-term "discomfort" than the mere "punishment" of loss of employment (which can permit the substance abuse pattern to continue). If the discipline of treatment is reinforced by the requirement of consistent job performance, the integrity of the employment relationship is maintained and the employee is encouraged to maintain his or her sobriety.

Bypass mechanisms channel problem drinkers and drug users to the discipline of treatment, while reserving (but not discarding) the ultimate sanction of dismissal. They add progressivity to the Rule G disciplinary process, even if the initial "discipline" is not punitive in purpose or form.

The foregoing discussion also sheds light on the claims of some railroads that dismissal of problem drinkers is a necessary and humane course, since it creates the opportunity for intervention and treatment. FRA can discern no support for the proposition that the "average" individual in need of treatment is more likely to be motivated by the hope of being *reinstated* in a previous job than by the need to *retain* a job not yet lost. The usefulness of dismissal as a spur to successful treatment is particularly dubious where reinstatement is discretionary with management—as it almost always is in the railroad industry—since a dismissed employee must fear not only that the company will not believe he has learned to control his substance abuse problem but also that he will be refused reinstatement for other reasons. There is no reason to suppose that the uncertainty introduced by dismissal improves the prognosis for such employees. There is at least circumstantial evidence that it does not, since "having a job, a stable income, and reliable set of social and personal supports correlate positively with treatment outcomes." L. Saxe, *et al.*, *The Effectiveness and Costs of Alcoholism Treatment* at 15 (Office of Technology Assessment, 1983).

In short, the argument that dependent employees need to be fired in order to be changed is founded on arguments that cannot survive close scrutiny. So long as the problem individual

understands that dismissal or another unacceptable consequence will result if treatment is not successfully completed, the requisite structure for confrontation is firmly in place and the incentives for rehabilitation are clearly visible.

Obviously, the railroads' disciplinary policies must also be designed to deter Rule G violations by occasional drinkers and "recreational" drug users. However, in this field, as in the field of law enforcement, certainty of detection appears to be at least as important as the severity of the punishment. A railroad that is confident of its ability to detect a high percentage of rule violations can safely reinforce its Rule G policy by dismissing all offenders—but would have less need to incur the costs associated with doing so. On the other hand, if the REAP Study was correct in concluding that the vast majority of Rule G violations go undetected on most railroads, then those railroads where detection is a problem face a real dilemma. As discussed above, dismissing first offenders will perpetuate the conspiracy of silence among employees and cut down the possibility of detection, assuring that this "ultimate sanction" has limited deterrent effect. Token punishment, on the other hand, will be seen weakening the effect of the rule. What appears to be indicated here is a policy of two-stage, progressive discipline, uniformly applied, with heavy emphasis on measures to detect violations before they result in accidents. Tailoring this kind of policy to the circumstances of the individual railroads is a major challenge that will require the best efforts of employee representatives and managers alike.

#### 7. Other Options

This section discusses options proposed by the commenters that have not been addressed above, together with the option of "no action."

**Reporting of Rule G violations.** A State public utilities commission suggested that FRA should require the railroads to report all Rule G violations to FRA on a regular schedule. FRA agrees that a program of instruction, testing and reporting is a necessary element in any effort to control alcohol and drug use. As discussed above, FRA already has in place requirements for the filing of operating rules, training of employees, and reporting the results of operational tests and inspections. Inclusion of specific alcohol and drug rules in Part 218 will, through the operation of § 218.11, have the effect of adding specificity to existing reporting requirements and facilitating the collection of the requisite information.

Accordingly, a separate data collection system from alcohol and drug violations will not be necessary.

#### *Improvement of railroad life style.*

Among the options least susceptible to regulation is the improvement of railroad life styles, which was mentioned in one form or another by an NTSB witness, a UTU officer from one railroad, and other commenters. Commenters noted that employees are often away-from-home for long periods and layover at locations where there may be few diversions. Boredom then leads to the use of alcohol or drugs. One BLE general chairman believed that the construction of tennis courts, swimming pools and similar facilities at away-from-home terminals would do more than any regulation to reduce Rule G violations. Another commenter believed that vibration and noise from rail equipment also affects drinking patterns.

FRA does not disagree that some features of the life style of employees in road freight service on line-haul railroads may tend to aggravate, and may in some instances actually prompt, use of alcohol and drugs that affects job performance. However, this life style is a result of both operating requirements and collectively bargaining restrictions in which the industry parties have major investments. Further, substance abuse cannot be eradicated through environmental changes alone, as evidenced by the use of cocaine and other drugs of abuse among many affluent residents of major metropolitan areas.

FRA also agrees that, as pointed out by a BLE member, crew assignment practices on some railroad divisions result in disruptions of sleep patterns and may produce fatigue. Although this problem is addressed in some measure by the Hours of Service Act, it may nevertheless be a source of pressures on employees to consume alcohol or drugs. FRA is not persuaded that a direct linkage has been established between disruption of body rhythms and substance abuse problems that would be sufficient to warrant further regulation directly affecting hours of service.

As noted above, several witnesses also singled out present crew calling practices as promoting uncertainty among employees and making it difficult for employees who may participate in events where alcohol may be served and then get caught by a short call.

FRA can neither alter the necessary exigencies of rail service nor require the industry parties to bargain in good faith on these issues. FRA does believe that there are areas of discussion where

significant strides could be made at little cost, if both management and labor demonstrate flexibility. However, in the short term it will be necessary for FRA to address alcohol and drug use through more direct means.

*Use of motor vehicle records to identify alcohol and drug abusers.* B'nai B'rith, MADD representatives, and Citizens for Safe Drivers suggested that the driving records of rail employees should be checked prior to employment and periodically throughout the period of employment to identify persons who require special supervision or treatment. The American Trucking Association also recommended review of driving records, which is effectively required for truck drivers by FHWA regulations.

FRA has two concerns with this proposal that require further examination. First, although it seems likely that there is a correlation between drunk and drugged driving offenses and similar conduct on the railroad, the degree of correlation has not been established by any research or analysis of which FRA is aware. A low correlation might not be sufficient to support the issuance of any regulatory requirements for record checks, while a high correlation might indicate the need for frequent checks. FRA intends to explore the feasibility of research that could determine the relative utility of this approach. Any such research should include a pilot implementation phase on a railroad that has an active EAP. The ultimate test of the approach would be whether it permitted the railroad to identify, for referral to the EAP or for closer supervision, employees who would not otherwise be identified (or who might not be identified until their problems progressed to a crisis stage).

Second, if it appears that the railroads should be required to check the driving records of employees in covered service as a matter of national policy, then the railroads should be permitted to use the most effective and efficient means of discharging that obligation. The National Driver Register maintained by the Department of Transportation is presently being developed into a computerized, interactive system that will be capable of providing current information on drivers in all participating States. This system will permit State licensing officials to identify all other jurisdictions where information is available on the driving record of the applicant or licensee in question. Employers of motor vehicle operators will be able to obtain the same information by having the

employee request that the information be provided.

However, the National Driver Register Act of 1982 authorizes access to the Register only for purposes of highway safety. Even information on the driving records of rail vehicle operators may not be released to employers. (See Title II, Pub. L. No. 97-364, sections 202(5), 206(b) (1), (2).) Requiring the railroads to check the driving records of covered employees—while at the same time denying access to the best information system providing access to that data—would create a glaring inconsistency between regulatory and statutory policy.

Although efficient access to driver records of most covered employees appears to be precluded for the present, FRA will continue to explore whether and to what extent driving records may correlate with indicia of job-related alcohol and drug problems among covered employees. If a significantly positive relationship does exist, it may be appropriate to take further regulatory action.

*Train control devices.* A UTU local chairman suggested that FRA could require installation of devices on locomotives that would halt train movements where the engineer is incapacitated. This issue is outside the scope of the present rulemaking, but it is worthy of comment. The level of investment is overlapping safety systems should be a function of risk and the potential for risk abatement. Present regulations and railroad practices recognize this principle. Train stop devices are already required by Federal regulation for high-speed operations. These systems are extremely expensive to install and maintain and can be used only in signal territory equipped for the purpose. Alerting devices are in service on most intercity passenger locomotives, but these systems are also very costly. "Deadman pedals" have been a traditional means of assuring that the train is stopped in the event of operator incapacitation, but they are easily defeated or disconnected. Significantly, none of the devices that is useful in the case of operator incapacitation—with the limited exception of the train stop device used with a compatible signal system—can assure safety where an employee is conscious but impaired by alcohol and drugs. Even a train stop device cannot assure proper train handling or prompt reaction to unexpected obstacles at grade crossings. Thus, technology is not a true alternative to competent operator performance.

It is should also be noted that existing freight crew consists provide for

considerable safety redundancy. Where an engineer becomes incapacitated, operates at excessive speed, or disregards signal indications, it is the responsibility of the train crew to bring the movement to a halt through the use of the emergency brake valves provided for that purpose. The interests of efficient and affordable transportation will be served only if all crew members are encouraged to remain fit and alert to their responsibilities.

*Toll free number.* A MADD representative supported the establishment of a toll-free number that employees could use to report safety violations on an anonymous basis. FRA, of course, already receives numerous complaints of allegedly unsafe conditions and practices under a policy of confidentiality intended to protect employees from possible retaliation by their employers. FRA offices are located in most areas of the United States, so that calls can often be made on the local exchange or for little cost.

However, it would be more efficient for employees disturbed by drinking or drug use practices to notify responsible railroad supervision directly. Some information is already passed between employees and supervisors on a "not for attribution" basis that assists in the identification of problem drinkers. The railroads might derive even greater benefits from the use of a centralized toll-free number similar to those presently being encouraged in the field of highway safety. Employees calling the number would not have to rely on the promise of anonymity, since they would, in fact, be anonymous. This is yet another area where experimentation and private initiative are indicated.

*Caboose off.* One railroad suggested that FRA require all employees to ride at the front end of each train movement, since the presence of more crew members would tend to discourage use of alcohol or drugs among crew members formerly isolated in the caboose. FRA knows of no evidence that concentrating all crew members in the head end of a train (which may include multiple locomotive cabs) would, in fact, reduce the use of alcohol or drug. Distribution of employees in two or more locomotive cabs would not necessarily enhance the effects of peer pressure over current manning practices. Further, some railroads still require the use of cabooses for certain types of service. In sum, these considerations offer no firm basis for believing that a "caboose-off" rule could be used to reduce the hazards associated with alcohol and drug use. The "caboose-off" issue is one that deserves to be decided

on its own merits and in light of all relevant circumstances.

*No action.* FRA was unable to identify any commenter who believed that FRA should take no further action of any kind to address the hazards caused by alcohol and drug use in railroad operations.

#### FRA Conclusion and Proposals (With Section-by-Section Analysis)

As discussed above, the full extent of accidents and casualties caused by alcohol and drugs on the railroads is not known, but it is likely well in excess of currently documented levels. Current mechanisms for dealing with alcohol and drug use, including the enforcement of Rule G and operation of EAPs, have made positive contributions to safety but have real limitations as presently conceived and implemented. Some railroads do not have effective EAPs, and the use of bypass agreements and other innovative approaches is limited to a minority of the properties. Rule G enforcement continues to be inhibited by the conspiracy of silence among employees. With little threat of detection (at least on some properties), employees are often not deterred by the threat of dismissal. "Dismissed" employees are usually returned to service in any event, and their temporary separation from the employment relationship may not be a positive factor in treatment (for dependent employees). In the worst cases, rule violators are returned to service through a process of "plea bargaining" that may turn more on monetary than safety considerations.

Although not all of these problems are susceptible to solution through regulations, the time has long since past when Government could realistically hope for the emergence of private sector solutions that would be sufficient to meet the problem.

Nor is there any single measure that can bring about an end to alcohol and drug-caused accidents. The most obvious means by which impairment might be detected and deterred—the "random" use of testing devices—is unprecedented as a Federal regulatory strategy, very possible offensive to the majority of employees who obey existing rules, and would require substantial resources to produce significant benefits. On the other hand, there are many measures that could be undertaken at minimal or no expense that offer real hope for preventing alcohol and drug-related accidents.

FRA is persuaded that the time for study is past and the time for making hard choices has arrived. Therefore, FRA proposes a three-part program to

deal with alcohol and drug use on the railroads:

First, FRA will continue to work with the leadership of the rail labor organizations and the railroads in promoting the development and refinement of voluntary programs to prevent alcohol and drug use in rail operations. FRA believes that both railroads and labor have yet to make the commitment of resources required to identify and serve problem drinkers and drug abusers. Several railroads have blazed the trail for the industry and can offer much program expertise and technical assistance. FRA can assist by transferring information, facilitating the establishment of programs where none exist, and urging the railroads to undertake regular and searching self-evaluations. Labor, the railroads and FRA can also work together on the establishment of improved training and awareness programs.

Second, FRA proposes to issue basic regulations that will—

- Specifically prohibit the use of alcohol and drugs by employees directly connected with rail operations (Hours of Service employees) and impose on the railroads an obligation to assure compliance with that prohibition;
- Require toxicological testing of employees involved in a major accident and incidents;
- Require more complete reporting of alcohol and drug involvement in train accidents; and
- Require that pre-employment physicals of applicants for employment in Hours of Service positions include a urine drug screen.

Third, FRA proposes to issue regulations authorizing the railroads to test employees for cause and mandating the institution of policies that can break the conspiracy of silence and involve employees in the solution of the problem. These are steps that FRA takes with great reluctance. Issues such as detection and identification of troubled employees can be handled most effectively through collective bargaining. However, it appears clear at this date that meaningful private sector action may not be forthcoming for some time. Federal leadership is required to hasten progress in these areas.

The proposed rules are discussed in detail below, together with a summary of recommendation for complementary private sector action.

#### General Provisions

FRA proposes to amend Part 218 of Title 49, Code of Federal Regulations, by adding a new subpart devoted to control of alcohol and drug use. This change would be accompanied by redesignation

of the Part from "Railroad Operating Rules" to "Railroad Operating Practices," in order to distinguish it from Part 217.

*Application* (§ 218.3). As a general matter, FRA proposes that these rules shall apply to all railroads in the general system of rail transportation, specifically including commuter rail operations. The only common carrier operation that would not be covered by the proposed rules would be the Port Authority Trans-Hudson (PATH), which is physically separate from the general system. FRA proposes to exclude PATH because it has many characteristics dissimilar from traditional railroad operations (although it has historically been a common carrier by railroad). FRA reserves the right to cover PATH in the final rule, and specifically solicits views on this issue.

FRA proposes to exclude certain small railroads from the application of the requirement for pre-employment drug screens, for reasons discussed below.

*Definitions* (§ 218.101). Separate definitions would be provided by this subpart, since there are no terms in common with the remainder of the part. The definitions of "covered employee," "drug," and "EAP counselor" are particularly important to understanding the thrust of the operative provisions.

"Covered employee" is defined to mean a railroad employee who has been assigned to perform service subject to the Hours of Service Act during a duty tour. Only covered employees would be subject to the specific prohibitions on alcohol and drug use, post-accident testing, and testing for just cause. Only applicants for positions that involve "covered service" would be required to be checked through a urine drug screen.

FRA is aware that employees such as car inspectors and maintenance-of-way employees also play an important role in maintaining the safety of rail operations and are themselves subject to the hazards of moving equipment. However, alcohol and drug impairment among operating employees is more likely to produce direct and immediate harm. Block operators, dispatchers and signal employees also play safety-sensitive roles warranting their coverage by the Act. The available accident statistics confirm that the biggest part of the alcohol and drug problem (viewed as a railroad safety problem) is concentrated among these crafts that perform "covered service."

Although FRA agrees that non-operating employees and non-agreement employees should also be subject to appropriate fitness rules, including Rule G, it does not follow that the present



regulatory proposals should encompass those classifications. FRA believes that it is appropriate to concentrate on those dimensions of safety that can produce maximum benefits for employees and the public. Extending the coverage of the rules to additional groups would tend to diffuse compliance efforts by the railroads, as well as FRA's own enforcement program.

**"Drug."** These rules prohibit the use of alcohol or any "drug." The purpose of these rules is to prevent inappropriate drug use, not to punish any particular condition or behavior. FRA believes clarity and definiteness are to be preferred to effect-oriented standards. Accordingly, "drug" is defined to mean any controlled substance, as defined in 21 U.S.C. 802 (a part of the so-called "Controlled Substances Act").

Some controlled substances are not available to the public, except illicitly ("Schedule I" substances). Others are available by prescription for therapeutic purposes, and may be necessary to permit normal functioning for persons with certain disorders. However, all are capable of abuse, and many can produce physical and/or psychological dependence. Controlled substances are grouped in the following categories: narcotics, depressants, stimulants, hallucinogens, and marijuana.

Controlled substances include certain substances named by statute and others added by regulation. This is an "open definition" that will change as new drugs are developed and scheduled by the Congress or the Department of Justice. However, the definition will provide very clear guidance at any particular time as to which substances may not be used in connection with safety-sensitive functions.

The definition avoids overinclusion by excluding from the meaning of "drug" any controlled substance that is being used in accordance with a prescription from a medical practitioner (physician or dentist). The practitioner must have made a good faith judgment, on the basis of available medical history, and with notice of the employee's assigned duties, that use of the substance at the assigned dosage is consistent with the safe performance of the employee's duties. FRA does not intend by this definition to require the railroads to intervene in the doctor/patient relationship or to make the physician the guarantor of safety. However, the railroad would be expected, at a minimum, to put the employee on notice of this Federal policy and requirement, so that the employee can advise the physician that he works with moving equipment. The physician can then determine an appropriate treatment that

takes into consideration the safety of the employee and the public. The railroads would remain free to go beyond this minimum requirement.

Obviously, use of an objective definition of the term "drug" may lead to underinclusion. FRA is aware that there are substances, other than those the distribution of which is currently controlled, that can adversely affect human performance. However, FRA is persuaded that they involve a relatively small portion of the drug problem. Further, the railroads would remain at liberty to make appropriate rules in excess of those proposed in this notice.

FRA also reserves the right to employ alternative definitions of the term "drug" such as those which include any "mind or function altering substance" or any substance that can "adversely affect safety." FRA requests further comment on these and other formulations, particularly any formulations that have proved durable over time. Commenters should indicate why particular definitions are preferred and why the definition proposed is not appropriate.

**"EAP counselor"** is defined as a person qualified by experience or education to counsel persons affected by substance abuse problems and to evaluate their progress in recovering from or controlling such problems. An "EAP counselor" may be a salaried employee of the railroad or a practitioner who contracts with the railroad on a fee-for-service or other basis. The EAP counselor owes a duty to the railroad to evaluate the employee and is vested with the authority to return the employee to service.

#### *Prohibition of Alcohol and Drug Use*

Section 218.103 would state the basic Federal policy concerning alcohol and drugs in rail operations. Paragraph (a) would prohibit the use or possession of alcohol or drugs by an employee who is assigned to covered service. An exception is provided for an unopened container of an alcoholic beverage located in the employee's private motor vehicle, which might be intended for off-premises consumption but could otherwise be deemed in the employee's possession simply because the vehicle is parked on railroad property.

Paragraph (b) would provide that no employee may report for covered service, or go or remain on duty in covered service, while under the influence of, or impaired by alcohol or any drug. This provision is self-contained and capable of application without reference to the balance of the section. An employee who was observed to be intoxicated or otherwise

impaired by alcohol, or an employee obviously disoriented or disturbed from the effects of drugs, would be considered in violation of this section. This standard is similar to the existing Rule G as applied to the employee who is detected by observation of appearance and demeanor and is charged by the railroad with being intoxicated (without specific evidence of consumption while subject to duty or on duty).

**Presumptions.** Paragraph (c) would create two "per se" presumptions that FRA believes are appropriate to a prevention-oriented program, providing clear minimum standards for employees, employers and arbitrators. FRA wishes to stress at the outset that these are not standards of criminal culpability, but proposed regulatory standards for persons who are compensated to provide services in a very dangerous environment.

First, an employee with a BAC of .05 percent or more would be conclusively presumed to be impaired, i.e., to have deviated from the regulatory standard. Blood alcohol levels in the .03 to .05 range may induce relaxation, adversely affect attention, result in partial loss of stability on one's feet, or reduce visual discrimination in some subjects. However, FRA is aware of little evidence suggesting an immediate safety problem associated with BAC's in this range. Most States use .10 percent as the presumptive level of intoxication on the highway, but this is a criminal standard and the American Medical Association has pointed out that "many individuals are under the influence in the .05 percent to .10 percent range." American Medical Association, "Policy Statement" (November 30, 1960). The countries of Norway, Sweden and Denmark and the State of Victoria in Australia have had .05 percent BAC limits for motor vehicle operation with relatively strong punishments. BAC's in the .05 range are associated with reduced close-course driving performance on the part of many drivers. (For a summary of relevant research see *Alcohol and Highway Safety: A Review of the State of Knowledge* (National Highway Traffic Safety Administration 1978), a copy of which has been placed in the docket of this rulemaking.)

FRA believes that these research findings and the general literature on the effects of alcohol on motor functions, perception, and judgment are applicable in the railroad environment, where employees are required to operate, and mount and dismount from, moving equipment in a variety of environmental conditions. Further, the history of

railroad accidents and incidents underscores the adverse effects of elevated blood alcohol levels on employee performance; and the commenters in this proceeding were unanimous in the view that alcohol and drugs are inconsistent with railroad safety.

The limit of .05 percent BAC is a proposal that attempts to recognize the importance of employee fitness. At least some employees are significantly impaired at .05 percent, and the presence of any person so impaired is inconsistent with railroad safety. The choice of .05 percent also reflects the fact that many other employees will not monitor their consumption of alcohol carefully, even if they have basic information concerning the effect of various dosages and their relation to body weight and oxidation over time. That is, it provides at least a small margin of error for most employees. The employee who deliberately decides to drink up to the "Federal limit" despite more strict carrier policies may at least be persuaded to stop short of the .08 percent range (in which most persons are significantly impaired). It should be recalled that an employee who is visibly intoxicated at a BAC below .05 would, nevertheless, be in violation of paragraph (b) of this rule, just as that person would be in violation of existing Rule G formulations. Finally, it should be recognized that nothing in the rule precludes carriers from adopting stricter limitations in the carrier Rule Gs.

There are some who will view this standard as too strict because it does not pay adequate tribute to the differences in levels of tolerance for alcohol. FRA is well aware that heavier drinkers may acquire a tolerance for alcohol that may permit them to function in more normal ways than occasional drinkers who have consumed similar amounts. However, degrees of tolerance among regular drinkers vary widely, and it is hardly feasible to qualify employees to drink to higher-than-standard blood alcohol levels. Further, the body's tolerance for alcohol is only partial; divided attention skills and other faculties will still be impaired, even in the case of an habituated alcoholic. And even alcoholics may experience a loss of tolerance in the advanced stages of the disease. Most importantly, the rule does not propose the drastic sanctions of loss of liberty and identification as a criminal that are associated with drunk driving laws. That is, what is proposed is a civil standard intended to foster responsible conduct.

There are others who will view this standard as too lax. FRA recognizes that

this proposal does not require employees to be alcohol-free when they report to work and, thus, may be viewed by some railroads and others as a step backward. Indeed, it is because Federal safety standards and rules of employee conduct do not easily mesh that FRA has been constrained to withhold regulation in this area for so long. However, any Federal rules based on the Federal Railroad Safety Act must bear a clear relation to safety objectives. Data is not available that would permit FRA to conclude that very low blood alcohol levels pose safety risks that are so demonstrable and material as to merit Federal regulation. Certainly a "no alcohol" rule would tend to have a preventive effect among employees who find it difficult to stop drinking once they have begun. However, the Rule G experience suggests that a minority of employees do drink prior to duty with some frequency, even in the face of a "no drinking" policy.

FRA recognizes that significant arguments could be marshalled in support of a presumptive impairment standard of .03 BAC. For instance, many railroad collisions occur because employees simply fall asleep during early morning hours. Any depressant in the employee's system may contribute to this problem. FRA would welcome the submission of research studies and professional opinion on this point and specifically reserves the right to include a more stringent standard (e.g., .03 or .04 BAC) in the final rule.

FRA wishes to stress that these rules do not require the railroads to weaken existing Rule G formulations. The proposed rules would be minimum standards, and the railroads would be free to maintain standards that are more rigorous, either for the purpose of promoting safety, or for other purposes (such as promoting general fitness and productivity).

Nevertheless, identification of a *per se* level of intoxication could, in concert with the test authorization proposed in this notice, lend greater certainty to the disciplinary process. According to a major railroad, Railway Labor Act arbitrators are increasingly demanding better proof of Rule G violations. There can be little doubt that proving an employee is impaired through the testimony of persons who have not received specialized training is a difficult proposition, at best, except where the employee is "falling down drunk." Recent research findings suggest that social drinkers, bartenders, and even some members of police forces cannot accurately judge levels of

intoxication. J. W. Langenbucher and P. E. Nathan, "Psychology, Public Policy, and the Evidence for Alcohol Intoxication," (38 *American Psychologist* 1070 (October 1983)). Determination of drug impairment is even more difficult. There are many situations in rail service where employees exhibit unusual behaviors, including situations involving rule violations and accidents, that may give rise to a suspicion of impairment without the usual "slurred speech and bloodshot eyes" so common in the litany of drunk driving cases and similar proceedings. It is a short step from the premise that better information is required to the conclusion that the employee should expect to cooperate in obtaining that information through proportional and reliable means (*i.e.*, to confirm or *exclude* the inference of alcohol or drug impairment). Hence, the testing authorization discussed below.

This rationale is equally applicable to the second presumption of the rule—that an employee is impaired by a drug (other than a drug used in accordance with a prescription) if the quantity of the drug in the employee's system would be sufficient to affect the perception, mental processes or motor functions of an average person. Again, this presumption would not be necessary where the employee is manifestly disturbed in ways that are obvious to the observer and some logical link can be made to use of alcohol or drugs. (*e.g.*, through breath odors or open possession of drugs). However, the presumption would put employees on notice concerning the use of drugs during periods before service and assist in the evaluation of employees who have exhibited otherwise unexplained behaviors not consistent with safe operations. The point here is that the railroad should be supported by a clear Federal benchmark for employee conduct, and the employee should be on notice concerning that benchmark.

#### *Post-Accident Toxicological Testing.*

Section 218.105 would require the railroads and their employees to facilitate "toxicological" testing after certain major railroad accidents and incidents. Consent to testing would be a condition of employment in covered service. In the immediate aftermath of an accident, the railroads would be required to transport the employees involved in the accident to a medical facility where they would provide blood and urine samples. The railroad would make available a standard shipping container similar to those already used by Federal agencies that investigate



transportation accidents. The samples would than be shipped by air freight to the Civil Aeromedical Institute (CAMI) laboratory in Oklahoma City (or another facility designated by FRA) where they would be analyzed for alcohol content and a wide range of drugs and drug metabolites. Test results would be provided to the railroad and to employees.

In the case of injured and deceased employees, the railroad would be required to cooperate with FRA and local authorities to assure that the necessary body fluid or tissue samples are obtained for analysis by CAMI.

*General need.* As discussed above, the extent of alcohol and drug involvement in railroad accidents is not adequately documented. The refinement and full implementation of any regulatory program will be possible only if better information is secured. Mandatory post-accident testing is required to answer this need for the following reasons:

1. Railroad accidents and incidents take place primarily on private railroad rights-of-way, and railroad personnel are usually the first persons on the scene. Local police often do not respond to major accidents or limit their response to securing the area against trespassers. In the absence of loss of life, local authorities often view a railroad accident on private property as a matter solely within the responsibility of the Federal Government or the State rail agency, and will not endeavor to evaluate the fitness of employees. Crew members are often interviewed on the scene by railroad supervisors who have not been trained in the detection of alcohol or drug impairment, and the first concern of supervisors is often the protection of property or restoration of operations—rather than documentation of the condition of the employees involved.

2. The accident scene is not a conducive environment to determine employee fitness. Employees may be visibly shaken by the experience of a bad accident even when they are entirely sober, but this normal phenomenon may also mask underlying problems. Release of lading may make detection of breath odors more difficult. Many accidents occur at night or in inclement weather, and observation of appearance and demeanor may be difficult, at best. Thus, even if local authorities respond to the scene, only the most alert personnel are likely to detect alcohol impairment. Impairment by other drugs is unlikely to be detected at all, except where drugs or paraphernalia are found on the person of a deceased or injured employee.

3. Neither FRA nor NTSB is capable of responding to the scene of most major accidents within the period employees should be evaluated and tested.

4. The railroads may have reasons to overlook or not adequately document suspected impairment. Although the railroads will normally be found liable for injury to third persons and non-railroad property, that does not mean that they always bear the entire economic burden of accident losses. Some accidents do not involve negligence by the railroad, and some may involve two or more contributing factors, each of which was necessary to produce the resulting damage or loss of life. If the railroad can establish that another person (such as the owner of a freight car with a defective wheel or a tank car with a defective tank) was at least partly responsible for the losses, the railroad may be able to transfer a share of the losses to the "joint tortfeasor." Clear evidence of negligence by the operating railroad's employees may limit the ability of the railroad to shift that burden.

5. Employees will always be under pressure not to reveal alcohol or drug involvement. Fit employees who have failed to take action in response to know impairment may themselves be subject to discipline. Impaired employees will naturally fear dismissal. All employees will be cognizant of the fault-based compensation arrangements embodied in the Federal Employers Liability Act (FELA). An employee shown to have been injured exclusively by his own negligence would not be able to recover under the FELA, and any showing of negligence would reduce the employee's recovery proportionally. In FRA's experience these factors very often compel employees to omit any reference to alcohol and drug use in their descriptions of accident scenarios.

6. Ironically, even the railroads may be chilled by the FELA. For instance, the size of a jury award to an injured employee (actual or projected in settlement negotiations) could be influenced by the fact that a co-worker was impaired, particularly if the railroad was allegedly on notice of the employee's problem. Further, in the case of an FELA action brought on a wrongful death theory, the representatives of the deceased might actually benefit from documentation of impairment if the employee was a "known alcoholic," the railroad had failed to get the employee into a treatment program, and the particular court recognized a duty on the part of the employer to safeguard the employee from foreseeable consequences of his disease.

*Across-the-board testing.* Some commenters have suggested that tests be required only where alcohol involvement is suspected or, at least, where a human factor appears to have been involved in the accident cause. However, the determinations that would permit this selectivity would have to be made by the railroads, and such reliance is inappropriate for the reasons already discussed.

Further, in the case of accident cause determination, FRA is not persuaded that the issue is as clear as is perceived by some commenters. Accident causes are not always immediately apparent, and initial clues may later prove misleading. Even where it appears clear that an accident was caused by a track or equipment failure, subsequently obtained information may establish that train handling, overspeed operation, or other operational failures were contributing causes.

Failure to test employees immediately after major accidents, as a matter of routine, will inevitably lead to the loss of valuable information that can confirm or exclude the involvement of alcohol or drugs.

*Deterrent effect.* FRA is aware that employees do not expect to have serious accidents. However, the routine use of post-accident testing will serve to reinforce in the minds of employees the Federal commitment to detecting alcohol and drug use. Execution of the consent form described below will itself bring home the seriousness with which alcohol and drugs are viewed by Federal policy. As more and more employees are tested, word of mouth will carry the news of employees identified as impaired through this method and highlight the hazards of alcohol and drugs in rail operations. In combination with other measures, post-accident testing should contribute to the general deterrence of alcohol and drug use. It may well, in addition, identify and weed out dependent employees in small occurrences before they become involved in potentially catastrophic accidents.

*Criteria for fashioning the proposed rule.* In fashioning the post-accident testing requirement, FRA has taken into consideration the following factors:

1. Testing should be required by Federal regulation only where the accident involved is of the life-endangering kind, but some life-endangering accidents result only in property damage. Failure to test where property damage is significant would result in review of an insufficient number of accidents to provide a reliable picture of alcohol and drug

involvement. Failure to test after train incidents where there is loss of life (but often little or no property damage) would ignore the principal dimension of the alcohol and drug problems as expressed in currently available data. As discussed below, FRA has selected a relatively small and manageable group of accidents that can provide representative data on the role of alcohol and drugs in precisely those kinds of accidents that are the most costly in human and economic terms.

2. Testing should be done by reliable methods and by a party independent of both the railroads and the subject employee.

3. The testing method should be capable of determining both presence and quantity of alcohol and drugs, with the objective of identifying both use and (to the extent possible) degree of impairment.

*Post-accident testing program.* The proposed rule would be the foundation of a post-accident testing program administered by FRA with the cooperation of the railroads and their employees, in consultation and cooperation with NTSB. As stated in paragraph (b) of the rule provision, testing would be required after —

- Any reportable train accident that involves a fatality, reportable injury, damage to railroad property of \$150,000 or more, or release of hazardous materials (other than *de minimis* release); and

- Any train incident that involves a fatality or loss of eye or limb (arm or leg).

Rail-highway grade crossing accidents and incidents and incidents involving trespassers would be excluded from the testing requirement. Inclusion of these categories would dramatically increase the scope and cost of testing and could occasion unnecessary delays in the provision of transportation services. Most of these accidents result from negligence on the part of persons other than railroad employees. Trespasser injuries and fatalities commonly result from persons placing themselves in position of danger on, or immediately adjacent to, the track structure, or on rolling stock.

The vast majority of rail-highway grade crossing accidents result from inattention or recklessness by motor vehicle operators. Motorists are on notice, both under state law and as a result of posted signs and warning devices, that rail movements have the right of way at these crossings. Stopping a heavy train within the short distance available at the point the danger of a collision materializes is simply not

possible in the great preponderance of cases: FRA is unaware of any instance in which impairment of a railroad employee has been implicated as a factor in any grade crossing accident; but would welcome any submission on this subject.

Obviously, some situations do exist in which train crew members can mitigate the effects of negligence by motorists. Proper use of warning devices can sometimes alert inattentive drivers; and prompt brake applications can sometimes provide the fraction of a second necessary for motorists to escape from situations of peril brought on by their actions. The general reductions in alcohol and drug impairment that would result from these proposed rules would also contribute to effective crew member performance at grade crossings.

Should there be reason to suspect impairment on the part of an employee in a grade crossing accident or incident involving a trespasser, the railroad will be authorized to require employees to cooperate in testing under section 218.109.

The categories of accidents and incidents selected for this proposal accounted for approximately 550 occurrences during 1982, the latest year for which complete data are available. FRA believes that this categorization is responsive to the NTSB proposal on this subject, but drawn with sufficient precision to avoid excessive burdens on the railroads and their employees. FRA has not included all reportable accidents involving passenger trains. Some reportable accidents involving passenger trains result in only minor equipment damage and would not warrant the potential delays in passenger service that a testing requirement would occasion. However, passenger accidents would trigger the testing requirement if they involved a fatality, reportable injury or property damage in excess of \$150,000.

The testing proposal also limits the types of injuries resulting from train incidents for which tests would be required. Tests would be required only after fatalities or injuries involving the loss of a limb or an eye. There were over 5,000 injuries to on-duty employees alone in train incidents during 1982, only a small number of which resulted in fatalities or loss of limb or eye. Many involved slight burns, flying objects, strained backs and similar events that hardly warrant the response of mandatory Federal testing. Although it would be desirable to sample a larger portion of train incidents resulting in injuries, FRA cannot identify a useful means of delineating between serious

and non-serious occurrences. For instance, it might be wise to test when an employee receives non-fatal internal injuries while coupling cars. However, it would be difficult for the railroad supervisor on the scene to determine whether a particular injury was severe or slight. Similarly, an accident producing permanent paralysis might warrant testing; but diagnosis of paralysis on the accident scene might be difficult or even impossible. FRA thus proposes objective criteria normally capable of ready determination.

FRA would welcome further suggestions for defining the types of accident consequences that should trigger the toxicological testing requirement. As with each proposal in this notice, FRA reserves the right to make appropriate adjustments in the final rule in response to comments received.

*Employees tested.* Paragraph (a) requires that the railroad "take all practical steps to assure that all covered employees \* \* \* directly involved in the accident or incident provide blood and urine samples for analysis." FRA intends that, at a minimum all crew members of the train or trains (or switching or yard crew members associated with the movement) be tested. If the train is occupying a portion of the railroad where it should not be at the time of the accident and there is any possibility of error by a dispatcher or operator, it is intended that these individuals also be tested. Similarly, in the case of an apparent false clear in territory where a signal maintainer is currently working on the controlling circuits, the signal maintainer would also be tested. In the vast majority of cases FRA expects that only testing of the crew directly responsible for the movement will be indicated.

*Employee role.* Employees would be expected to consent in writing to post-accident testing as a condition of employment and would be deemed by regulation to have consented. Each employee would complete a consent form that would be retained on file for the duration of the employee's service with the railroad. All employees would be required to provide blood and urine samples, with the exception of hemophiliacs (and other persons with medical conditions inconsistent with drawing blood), who would be expected to provide a urine sample only.

FRA is, of course, reluctant to propose that employees be required to provide blood samples. However, FRA believes that this approach is far superior to conceding the continuation of accident patterns that portend more useless

shedding of blood by other employees and potential members of the public, as well. The sample required for comprehensive drug screen and confirmation test is only 20 milliliters, roughly 5% of one pint. The procedure is simple and without hazard to the employee's health.

**Samples of choice.** FRA has given serious consideration to the issue of what method of testing is appropriate. Breath testing is useful only with respect to the detection of alcohol and, accordingly, does not appear to be the most productive method for these purposes. Blood is the only available body fluid that can be drawn from the living subject that can provide a clear indication not only of the presence of alcohol and drugs but also their current impairment effects. Accordingly, FRA proposes to place primary reliance on analysis of blood samples. Urine is not an adequate substitute for blood for present purposes, since the quantity of a drug or drug metabolite in the urine does not necessarily correlate with the quantity of the substance in the blood at any given time.

On the other hand, in some cases it may take a matter of several hours to get employees from an accident site to a medical facility to obtain a blood sample. This will be a particularly serious problem where employees are needed to provide information and move equipment on the accident scene. In these cases, the interval between the accident and time blood is drawn may be greater than the time required for certain drugs to be eliminated from the blood. Accordingly, a urine sample will be required to ascertain whether certain substances have been used by the employee. A positive urine test, taken with specific information on the pattern of elimination for the particular drug and other information on the behavior of the employee and the circumstances of the accident, may be crucial to the determination of probable cause. Consequently, FRA proposes to require that both blood and urine samples be provided by surviving employees for analysis.

Where employee fatalities result from accidents, the sample(s) of choice will be dictated by the circumstances, including potential contamination of samples by fuel or lading, loss of blood, and other factors. With the cooperation of the railroads, FRA will endeavor to enlist local medical examiners and other authorities in obtaining the appropriate samples for analysis by FRA's designated laboratory.

**Railroad role.** As set out in paragraph (a) of the proposed rule, after the accident the railroad would be required

to gather the subject employees as quickly as possible and provide them transportation to a medical facility where samples can be obtained. The railroad would be responsible for explaining to the medical facility the undertaking of the employees and responsibility of the railroad to cooperate in the testing procedure. In conjunction with the medical facility, the railroad would also assure that the samples are properly marked as to identity of the subject and time of the test and shipped to FRA's designated laboratory in a standardized shipping kit, units of which would be maintained by the railroads at key points on their systems. (As noted above, FRA intends to hold a technical conference to explore the logistics of post-accident testing, solicit the cooperation of the railroads and the medical community, and explain the proposed procedures for handling samples and how they will be analyzed.)

**Injured and deceased employees.** FRA recognizes that injured employees and employees killed in these accidents and incidents present special considerations. In general, FRA proposes that the railroads make every reasonable effort to see that samples are obtained from injured employees, consistent with sound medical practice, and to assure that FRA is provided timely information to facilitate obtaining samples from deceased employees. Obviously, among injured employees, those who are conscious will be able to affirm that they have consented to testing. If an employee endeavors to withdraw consent after an accident but before the sample is provided, the employee would suffer the consequences specified in paragraph (g). FRA does not intend that force should be used in any case to obtain a sample.

Should the employee be unconscious and the treating physician decline to draw the blood sample, the railroad would be expected to (i) make the consent form available to the appropriate authority of the hospital, renewing the request that the sample be obtained (again, only if consistent with sound medical practice) and (ii) notify FRA of the problem. FRA could then assist, to the extent necessary and practical, in obtaining the sample.

In the case of a fatality to an employee, the railroad would be expected to immediately notify FRA, advising FRA concerning who took custody of the body of the deceased and providing the consent form to FRA. FRA would then contact the custodian and seek production of the requisite samples.

**Administrative guidance.** FRA proposes to specify the technical standards for post-accident testing by

administrative action, under the authority of the proposed rule. This would permit revision of procedures in response to technical advances and accumulated experience, without the requirement of further rulemaking. By example, it might be appropriate at some point to alter the type of test tube used to collect the sample or specify different shipping procedures. FRA would not use this authority to alter the overall regulatory burdens imposed by the proposal.

**Notification.** Paragraph (d) provides that FRA will notify the railroad, the tested employee, and NTSB of the results of the test. Since FRA does not have a data bank on the home addresses of rail employees and it would not be practical to maintain one, comment is requested on procedures for ensuring that employees receive actual notice of test results.

**Preservation of samples.** Paragraph (e) provides that samples will be retained for at least six months and describes the circumstances under which samples may be made available to NTSB (on request) and parties involved in litigation arising out of the accident (by subpoena). Although the purpose of this proposed rule is not to gather evidence for collateral proceedings, FRA recognizes the inevitability of demands for the production of the samples in civil and criminal proceedings. FRA expects to oppose production of samples unless adequate notice is given prior to the return date of any compulsory process, and would reserve the right to resist production under other appropriate circumstances.

**Railroad reports.** In some cases the railroads will not be able to assure that all requisite samples are obtained (e.g., where an attending physician declines to draw a blood sample and the railroad is unable to reach FRA field personnel or where the employee revokes his consent to testing). In order to assure faithful implementation of the intent of the proposed rules and evaluate those circumstances that intervene to prevent testing, subsection (f) of the proposed rule would require the railroad to report, in brief narrative format, the circumstances that prevented compliance with the intent of the rule.

**Failure to Consent to Testing.** Paragraph (g) would address the problem of applicants and employees who fail to comply with testing requirements. FRA does not have available any direct sanctions that can be used to compel compliance with these proposed rules as they apply to employee conduct. Consequently, the

rules would require the railroads to take appropriate actions.

The provision would bar employees from covered service if they decline to sign the consent form for post-accident testing. The railroad would be required to withdraw from covered service, for a period of at least six months, any employee who refuses to cooperate in mandatory testing after a major accident. The withdrawal from service would be required to be followed by a hearing convened within the period specified in the applicable collective bargaining agreement or, in the absence of an agreement provisions, within 10 calendar days (or such longer period as might be agreed to by the employee).

FRA recognizes that the industry parties do not favor FRA involvement in disciplinary matters, and FRA is reluctant to address this problem through regulations. However, failure to clarify the nature of appropriate responsive action could lead to widely differing treatment of similarly situated employees. That is, different railroads might construe their obligations under these rules in different ways. Some railroads might deem a very short suspension an adequate response for an offending employee, while others might feel compelled to dismiss such employees permanently in order to avoid the charge that they failed to faithfully implement the intent of the proposed rules. The use of a fixed maximum period will put employees on notice concerning the consequences of refusals—thereby deterring noncooperation—while providing clear guidelines to the railroads concerning their obligations to enforce the Federal requirement.

Clearly, some railroads will elect to mete out more severe punishment under some circumstances, particularly where the employee has failed to cooperate in the railroad's own investigation of the accident or rules violations have been established. Thus, the six-month period is a minimum period; and the railroads will be free to justify more severe sanctions on their own merits.

#### *Pre-Employment Drug Screens*

Section 218.107 would require that applicants for positions that involve covered service be tested for the presence of alcohol and other drugs. As expressed in paragraph (a), it is the intent of the proposal that the drug screen be conducted as a part of the pre-employment physical examinations used by most railroads to ascertain the fitness of applicants for employment. In many cases, urine samples are already obtained as a part of such examinations. Testing the samples for drugs will

require little additional expense and no additional inconvenience to most applicants.

*Objectives.* As noted above, one railroad has already demonstrated the usefulness of this technique in identifying drug users, including users of illicit substances. "Recreational" users could obviously avoid detection by abstaining for a sufficient period before the examination (up to 30 days for marijuana). However, FRA is advised by the National Institute on Drug Abuse that urine testing programs in other industries often result in the identification of many recreational users, even though prior notice is given that tests will be made.

FRA believes that such tests would be useful in identifying alcohol-dependent persons, as well. Examining physicians should be able, through careful examination and a follow-up test, to discount the presence of alcohol in the urine of an applicant who is not a substance dependent. Where the applicant is alcohol-dependent, a positive test for alcohol would aid in diagnosis; and abstention from use prior to the physical could give rise with withdrawal symptoms that would also be useful in evaluating the individual.

There are sound administrative and demographic reasons for focusing mandatory drug urine screen requirements on new applicants for railroad employment. First, it would be difficult to require a uniform national pattern of drug urine testing for current covered employees. The frequency and applicability of railroad medical examination procedures varies widely from one company to another. For instance, some railroads require periodic examinations only for train and engine employees but not for operators, dispatchers or signal maintainers. One railroad examines only engineers. Most railroads appear to examine younger employees only about every four years, while certain older employees may be examined annually. Requiring drug urine screens apart from periodic medical examinations is certainly feasible, but such a requirement would be more costly on a per unit basis and would tend to create the impression among employees that the tests were being conducted for reasons other than determining fitness.

Second, focusing attention on final applicants for employment is more likely to prove highly cost effective than testing current employees. Drug abusers who have been employed for a more or less extended period are more likely to have been identified as problem employees, if not as drug abusers, and can often (though by no means always)

be targeted for special attention. Abusers with chronic or acute problems may actually be dismissed for performance-related reasons, whether before or after involvement in an accident or on-the-job injury. Applicants for employment, by contrast, are subject to evaluation only "on paper" in the absence of candid reporting by a former employer (often the exception rather than the rule).

Third, applicants for rail employment are, on the average, younger than current employees. In recent years roughly half of new hires have been under age 25. Young adults (age 18-25) are more likely than persons in any other age group to abuse drugs. As reflected by accident statistics on drunk driving, persons in this age group are also more likely to lack the maturity and sense of responsibility to others that can mitigate at least some of the effects of drug use.

The 1982 survey of drug use prevalence conducted by the National Institute on Drug Abuse (NIDA) shows a slight moderating of drug use by young adults in comparison with the peak periods of the late 1970's. However, the survey's results for "current use" (use within month prior to the interview) still show striking disparities between the age groups. For instance, 27.4 percent of young adults reported current use of marijuana, compared to 6.6 percent of older adults. Current use of cocaine was reported by about 6.8 percent of young adults and only 1.2 percent of older adults, and a nearly identical distribution obtained with respect to nonmedical use of psychotherapeutic drugs such as stimulants, sedatives, tranquilizers and analgesics. About 1.7 percent of young adults reported current use of hallucinogens, but older adults reporting such use totalled less than .5 percent of that population. This survey may be particularly relevant to the population from which new rail employees are drawn, since it covered only persons living in "households." Persons living in military installations, college dormitories, other group quarters and institutions such as hospitals and jails were not covered.

The NIDA survey shows that use of particular drug groups may vary by region, education level, sex and other factors. These variations provide little comfort. For instance, applicants and new hires for covered service are predominately males, but more males than females reported current use of drugs in all categories for which data were available. Regional statistics on current use of marijuana by young adults ranged as high as 31 percent, but

no region showed current use prevalence below 26 percent. Current use of cocaine was highest in the Northeast (13 percent) and West (9 percent), but the North Central region "led" in current nonmedical use of psychotherapeutic drugs by young adults (11 percent), and the South (7 percent) actually experienced a higher prevalence of the latter than the West (5 percent).

In short, testing in connection with pre-employment physical examinations is a logical starting point in a broader effort to assure that all covered employees are fit to perform their duties without undue hazard to themselves, their co-workers or the public. FRA believes that the experience of routine drug screens in this context will persuade the railroads to undertake appropriate further steps to implement drug screens as a part of their overall fitness programs. Those steps can be adapted to regional patterns of drug and alcohol use and to the differing physical examination programs on the various railroads.

**Uses of test results.** FRA does not intend to specify what action the railroads shall take with respect to applicants who test positive for particular substances. There are simply too many combinations of pertinent circumstances to lay down rigid rules. Carrier medical departments, consulting physicians, and railroad personnel officers are clearly capable of making the requisite decisions once they have adequate information. Based on current carrier medical standards, FRA believes that the railroads will not employ substance-dependent persons in safety-sensitive functions until those persons have demonstrated that they have overcome their problems.

The issue of recreational usage is more complicated. A substantial portion of young Americans use illicit drugs at least on occasion, and many in some regions use certain drugs with some regularity. The applicant who brings his habit to work in rail operations is a safety problem of the first order. But it is not clear that all recreational drug users permit their habits to affect their job performance.

What can be said is that the railroads would be well served by the availability of more drug use information. The drug user whose past employment history is marked by injuries and absences would often be a poor risk for covered employment. Users of some "hard drugs" may be essentially unemployable in covered service.

Without doubt, the availability of drug use information through testing will present the railroads with difficult

choices, and some companies may elect to exclude anyone who tests positive rather than face those choices. The alternative is the current policy of most railroads—i.e., to accept unquestioningly the representations of applicants for positions in safety-sensitive functions concerning their own drug use habits.

The institution of pre-employment drug screens should have one other salutary effect. At least for the first few years of the program, the results of these tests will produce data that can provide management an order-of-magnitude look at the number of drug abusers who have been hired in recent years prior to the institution of the program. While many individuals put such habits behind them as they mature, many do not. The existence of data on the incidence of drug use in the population from which new employees have been drawn should further encourage the intelligent use of periodic physical examinations, awareness efforts and other tools.

**Prior warning of test.** Section 218.107 requires that applicants be notified at least seven (7) days prior to the physical examination that the urine sample will be tested for alcohol and other drugs. This will avoid any invasion of the privacy of applicants. Applicants who continue to pursue employment with the railroads waive any privacy interest (as between themselves and the prospective employer) with regard to their physical condition. This is done as a matter of private contract, and the notification requirement of rule merely assures that the waiver represents informed consent.

**Drugs tested.** Paragraph (c) of the rule specifies certain commonly abused drugs for which tests are to be conducted but permits the railroads to add other drugs of abuse, including synthetic drugs that may come into use subsequent to the issuance of any final rule in this docket.

NIDA data show that drug use patterns shift from year to year as drugs go in and out of fashion and availability varies. It is therefore critical that the railroads monitor applicants for use of a broad range of drugs. Prevalence surveys, emergency room reports and other data compiled by NIDA can be used to assist railroad medical officers in identifying new drugs of abuse for which testing is indicated.

**Confirmation.** Paragraph (d) requires that positive samples be retested by another laboratory or by another method. FRA intends that confirmation tests shall be specific as to the drug or drug metabolite suspected.

**Notification of results.** Paragraph (e) requires that the applicant be provided notice of any positive test result and be

provided an opportunity to explain the presence of the substance detected (e.g., by reference to ingestion of prescription medicine containing the substance in question). FRA intends only that the railroad have a regular procedure, that actual notification be made where results are positive, and that there be an effective opportunity for an oral or written response.

**Retention of records.** Paragraph (f) would require that test records be retained for two (2) years and make them available to FRA for review. Names of applicants not hired could be expunged. Each railroad would be required to submit an annual report summarizing the results of the urine drug screens conducted under this rule. These reports will assist FRA in evaluating the utility of the program, identify substances for which railroads should be encouraged to test, and determine whether the railroads are undertaking appropriate follow-up with regard to drug users they may have elected to employ in covered service.

**Condition of hiring.** Paragraph (g) would bar the employment of a person who fails to submit to a pre-employment drug screen.

**Small railroad exclusion.** Paragraph (h) would exclude from the pre-employment drug screen requirement any railroad that employs fewer than 15 persons in covered service. Many such railroads are located in rural communities where applicants are well known to the railroad managers. These smaller railroads usually enjoy closer supervision, carry lighter volumes of hazardous materials, and engage in low-speed operations that pose less threat to public safety. A disproportionate number of alcohol and drug-related accidents involve collisions between two trains, and the smaller railroads generally have lower traffic densities that (in combination with lower speeds) make serious collisions quite rare. None of the railroads in this group has experienced a documented alcohol or drug accident since 1975.

The costs of testing for these railroads on a per-unit basis would likely be higher than those for larger railroads, since they hire only infrequently and would not enjoy the economies of scales available to larger railroads. It is likely that many do not have formal physical examination procedures, a difference that would also drive up marginal costs. This exclusion will also avoid the imposition of new paperwork burdens on small business entities that are ill-equipped to handle them.

Some of these small railroads do carry passengers in excursion service. FRA



specifically welcome comments as to whether the proposed exclusion from the pre-employment drug screen requirement should apply to small railroads that provide such service.

#### *Authority To Test for Cause*

Section 218.109 would authorize the railroads to require employees to cooperate in breath and urine testing in certain situations involving "just cause." The railroads are involved in a hazardous business. They transport passengers and hazardous materials through the center of communities across the nation. Even a unit coal train is potentially a powerful instrument of destruction because of the kinetic force associated with high tonnage and considerable speed. It is unthinkable that the railroads should continue to be denied appropriate tools to determine whether their employees are fit to do their jobs.

The fact is that but for the decision of the NRAB, discussed above, which relegated this issue to collective bargaining and the procedures of the Railway Labor Act, the railroads would be free to test without restriction in most states today. Private employers may generally require employees to cooperate in appropriate testing as a matter of contract. Such testing clearly does not implicate Federal constitutional guarantees.

FRA proposes to remove any barrier such as the one posed by the NRAB decision, or one posed by State or local law, to testing for those situations where it is reasonable, in FRA's judgment, to require employees to provide breath and body fluid samples. Because regulatory action is necessary to remove these barriers, FRA is constrained to do so in a measured way. FRA is not prepared to permit unrestricted testing authority, because such a grant could result in individual employees carrying an undue burden of compliance under these proposed rules. Further, such a grant could undermine the spirit of mutual confidence that must be engendered if the railroads and their employees are to bring this problem under control.

Paragraph (a) of this section establishes the basic permission to test. The rule would both supersede collective bargaining restrictions and preempt any provisions of State law that are inconsistent. Employees would be deemed to have consented to testing under the section as a condition of employment (implied consent rule).

*Categorical cause.* Paragraph (b) outlines those circumstances presenting just cause for testing. The first is "reasonable suspicion" that a particular employee is presently impaired by

alcohol or drugs. The railroad supervisor would have to be able to articulate the basis of the suspicion. It is expected that supervisors will be alert for the common signs of inebriation, such as slurred speech, unsteadiness, odor of alcoholic beverage on the breath, and the like. Similarly, some supervisors may be alert to indications of drug use, in addition to those indications also associated with the alcohol (itself a depressant drug, albeit not regulated as such).

FRA does not believe it is practical to include a checklist of symptoms in the regulations. Not all persons under the influence of alcohol have an "unsteady gait," nor are all persons whose breath smells of "alcohol" impaired. Even an employee whose face is not ordinarily "flushed", might appear flushed after climbing several freight cars to set hand brakes. As in the case in Rule G enforcement today, the supervisor will need to evaluate the employee on the basis of all available circumstances and indications. However, the supervisor will not be compelled to commit the resources of the company by immediately charging a Rule G violation. Rather, where the matter is susceptible to doubt or corroborative evidence is desired, the supervisor can require that an appropriate test be administered to confirm or exclude the presence of alcohol or drugs. If some tests prove to be negative, as they undoubtedly will, it is also likely that some employees who might otherwise be charged under Rule G will be proven sober and afforded more appropriate treatment.

Critically, the availability of testing authority will enable supervisors to pursue the cause of unusual behaviors in many marginal cases where evidence would not otherwise be sufficient to proceed under Rule G. Habituated alcoholics, for instance, often drink beverages that do not have noticeable aromas and have sufficient tolerance for given quantities of alcohol so that they can walk and talk in a near-normal manner. Drug users often display signs of impairment that are much subtler than those associated with alcohol, rendering normal detection in the occupational environment difficult or even impossible. However, careful observation may disclose less obvious physical manifestations or behaviors that would warrant further action. Clearly, "reasonable suspicion" testing is not a complete answer to these problems. But it does provide a tool where the appearance or behavior of the user is sufficiently affected to give notice to the observer.

Obviously, whether suspicion is "reasonable" in any case will turn both on the supervisor's level of training in

identification of impaired employees and the supervisor's familiarity with the employee in question.

Note that the proposed rule requires that the observations in question be personal to the individual who forms a "reasonable suspicion." A supervisor would not be entitled to rely upon information provided by an anonymous informant to make the requisite determination. On the other hand, information provided by a third party might suggest the occasion for the supervisor's observations.

Second, under the proposed rule any covered employee directly involved in an accident or incident reportable to FRA under Part 225 of Title 49 would be subject to testing. Roughly one-third of train accidents are due in large part to human error on the part of covered employees. A very high percentage of train incidents and non-train incidents among covered employees involve possible human failure, although many other factors may be involved, as well. It is seldom possible in the immediate wake of an accident or incident either to confirm or exclude the possibility of human failure as a factor, yet if testing is not done quickly important information is lost forever. The discussion above (under "Train Incidents") has pointed out that significant levels of alcohol have been found in one out of six railroad employee fatalities for which autopsies were performed—a rate far in excess of the estimated incidence of alcohol use among all employees (for any working day). This finding is obviously consistent with other safety data that show alcohol-impaired persons are much more likely than non-impaired persons to become involved in life-threatening situations.

Providing the railroads with the authority to test after reportable accidents and incidents will enhance their ability to identify the underlying causes of human failure, particularly in the case of "accident-prone" employees who have failed to respond to training. Investigations of alcohol and drug-related train accidents often show that the employment records of the persons involved were marred by occurrences (accidents, health problems, or rule violations) that were indicative of possible long-term use of alcohol. Such persons should be identified as soon as possible, and the basis of their problems should be determined.

Many persons impaired by alcohol or drugs may not display noticeable outward signs of their impairment. Testing for categorical cause is appropriate to detect impairment in

those situations where the employee's behaviors suggest the need for further evaluation.

Third, the rule would authorize testing of any employee who was directly involved in a serious operating rule violation involving the potential for a train accident. Specific violations are identified by example, in order to illustrate the type of failures that would allow testing. FRA welcomes suggestions for additional concrete examples in which testing should be authorized, as well as suggestions for situations in which testing would not be indicated.

The rationale for this permission is similar to that for testing after an accident or incident. It is not enough for the railroad to take action against employees after there has been loss of life or property. Nor is the interest of safety adequately served by suspending or dismissing impaired employees for violations of rules unrelated to their impairment, since reinstatement may occur in the absence of action to address the underlying cause of the individual's behaviors.

*Permissive.* This section is, and is intended to be, permissive only; no particular test or series or program of testing is required or compelled by this section, and any such test or tests actually undertaken by the railroad are done at its initiative and not directly or indirectly at the instance of FRA.

*Limit on number of tests.* Paragraph (c) sets limitations on the number of test procedures an employee can be required to participate in. FRA proposes to limit those procedures to three in any year and two in any month, except where a previous test was positive. The rule defines "test procedure" to include the provision of breath and urine samples. A railroad could require up to two breath samples per procedure (one to screen, the other to confirm) and two urine samples per procedure (the first to detect presence of drugs and metabolites and the second to indicate approximate level of alcohol still in the blood).

*Safeguards.* Paragraph (d) sets forth relatively standard safeguards for breath and urine testing. Very low readings (under .02 BAC) would be required to be disregarded for all purposes, to avoid controversies over the presence of alcohol in patent medications, mouthwash, and the like. FRA is aware that it may be necessary to consider relatively low blood alcohol readings in situations where employees have been on duty for 8 or 10 hours and would welcome any suggestions concerning rule provisions that could both (i) exclude *de minimis* results with

regard to determinations of current rule violations and (ii) permit consideration of the same levels for appropriate purposes.

The principal testing safeguard is applicable to both breath and urine testing. That is, the employee would be provided the prompt opportunity to provide a blood sample at an independent medical facility for testing by that facility or an independent laboratory. This right would provide assurance to employees that the railroad will not mishandle samples or misinterpret test results. Further, the provision of a blood sample would assure the availability of the best information on the present impairment effects, if any, of any substance that might be detected in the breath or urine. Obviously, the railroad would not be required to facilitate taking of the blood test if the breath test was negative. Since urine test results would seldom be available immediately, employees would enjoy the right to demand blood tests in all such instances.

Where the employee declined the opportunity to provide a blood sample and the urine test is positive for alcohol or a drug, the rule would establish a presumption that the employee was, in fact, impaired by the substance detected. This presumption is necessary because substances can remain in the urine for some time after they are eliminated from the blood stream. Use of the unintrusive urine test is plausible only if impairment can be inferred from presence of the identified substance.

#### *Identification of Troubled Employees*

Section 218.111 requires each railroad to adopt, publish and implement two policies that are designed to achieve allied objectives. First, the policies are intended to facilitate the identification of employees who are troubled by substance abuse problems and would benefit from treatment of some kind (detoxification, counseling, or other therapies). Although management has many tools to identify such individuals, the railroads historically have failed to identify many employees at a sufficiently early stage of their disorders. Co-workers have the best opportunity to spot developing problems and to trigger early intervention, but they often fear that the affected employee's livelihood may be threatened.

The troubled employees themselves usually deny their diseases and often must be confronted in order to bring them into an EAP or similar program. Most larger railroads have endeavored to deal with this problem through their EAPs and related outreach efforts, and

those efforts have met with mixed success. FRA believes that all railroads should adopt clear policies meeting minimum standards that are designed to ensure employee confidence in the railroad's commitment to rehabilitation of employees afflicted by alcohol and drug abuse problems.

The second objective of these policies is to strike at the heart of the conspiracy of silence that has permitted most Rule G violations to go undetected. Employees are overwhelmingly opposed to alcohol and drug use on the job, but many employees look the other way in order to avoid endangering their co-workers' jobs. The majority of rule-abiding employees will say "no" to alcohol and drug use on the job if they are given the opportunity. These policies are intended to provide that opportunity.

The achievement of both of these objectives will serve the goal of improved railroad safety in direct and material ways, although other, laudable purposes will also be served. FRA wishes to stress that these policies are proposed to be incorporated in safety regulations solely for the purpose of improving safety. Although it is possible to imagine a strategy that would emphasize only "catching" and "firing" (or disqualifying) those who use alcohol or drugs in railroad operations, such a strategy would be sadly lacking in realism. Few railroads are prepared to make the investments required to "find" substance abusers, even if authority for random testing were to be made available. Further, even where violators are "fired," most ordinarily end up back on the railroad's employment rolls, sooner or later. By contrast, the policies proposed in this notice seek to prevent the kind of accidents, injuries, and serious rule violations that may eventually form the basis for disciplinary action. They stress early intervention, and offer mechanisms by which employee attitudes can be changed.

*Voluntary referral policy.* Paragraph (b) of the rule would mandate a "voluntary referral policy" similar to those policies in effect on most Class I railroads. Inclusion of this requirement would emphasize the importance of rehabilitation as a safety strategy and would assure that all railroads have such a policy in force. Any covered employee who requested assistance or who was referred for assistance by his or her union would be extended the cooperation of the railroad in effecting a recovery. Obviously, the railroad is not a treatment provider. However, the railroad can provide a point of contact (whether salaried or retained on a fee-



for-service basis) who can direct the employee to appropriate resources. The railroad can also grant any leave of absence that the employee may require in order to participate in treatment. (The rule indicates that a leave of at least 45 days must be granted, as requested. A longer period might be reasonable in some cases.) Grant of the leave of absence is in the railroad's interest, since it may remove an uncontrolled alcoholic or drug addict from the work environment.

The section requires that the employee be returned to work when the "EAP counselor" employed or retained by the railroad determines that the employee can resume his or her duties safely. Confidentiality would be maintained concerning the referral unless the employee failed to cooperate in treatment. Should this occur, the employee's treatment records could be made a part of the regular personnel and medical files; and the employee would be subject to adverse action under the railroad's normal policies and agreements.

FRA is aware that many EPAs promise absolute confidentiality for employees who enter the programs under "voluntary" referrals. FRA does not intend to disturb those policies or indicate any disapproval of them. The proposed rules would be "minimum standards" and would be consistent with many existing railroad programs.

FRA specifically solicits comments on the extent to which the policy should permit an "EAP counselor" to require follow-up treatment after the employee is returned to service. FRA is concerned that, as presently framed, the rule might actually discourage some counselors from returning employees to service until all treatment had been completed. Since some railroad programs emphasize outpatient treatment and early return to service, and since follow-up treatment, is normally indicated after primary residential treatment, it may be that the rule should specifically address these points. On the other hand, it may not be reasonable as a matter of regulatory policy to permit the counselor's "hold" over the employee to continue indefinitely. As with other issues, FRA reserves the right to make appropriate adjustments in the rule in response to public comments.

It is important to note that the voluntary referral policy is critical to the structure of the proposed rule, even if it is accepted that progress in the railroad industry in developing and implementing employee assistance programs has been substantial. In particular, the co-worker report policy (or bypass) cannot function in the

absence of a clearly mandated system by which employees can seek treatment.

*Co-worker bypass.* Paragraph (c) would mandate a "co-worker report policy" similar to the procedures embodied in some bypass agreements. The rule would permit a covered employee to maintain an employment relationship with the railroad following an alleged first offense under Rule G (or these proposed rules) under certain limited conditions:

1. The violation must come to the attention of the railroad as a result of a report by a co-worker.

2. The employee must waive the disciplinary hearing and report for evaluation by the "EAP counselor."

3. If the employee is determined to be affected by psychological or chemical dependence or another treatable disorder, the employee must abide by the treatment recommendations of the counselor and the railroad must grant leave to permit completion of treatment. If the EAP counselor determines that the employee has successfully completed treatment, the employee must be returned to service (on successful completion of the return-to-service physical).

4. If the EAP counselor determines that the employee would not benefit from formal treatment, the employee must be returned to work within 15 days, but the employee must also complete an education or awareness program specified by the railroad.

The rule also contains several declarations intended to guard against erroneous or overbroad interpretations.

The co-worker report policy provides the majority of responsible railroad employees with leverage to stop overt drinking and drugging by other employees who are threatening their safety, taxing their patience, and causing them to default on formal obligations to their employer. This mechanism can force the referral of the substance-dependent employee under the voluntary referral policy (by the troubled employee, after confrontation, or by the employee's union). Similarly, the plausible threat that other employees will follow-through with their threat to report the volitional drinker or drug user may be sufficient to convince that person to leave alcohol and drugs at home.

The chief theoretical objection to this "bypass" proposal is that it will permit employees "one more bite at the apple," in addition to informal warnings, treatment, leniency reinstatements, and arbitration awards. This is an empty concern. By definition, the co-worker report policy would apply only in those situations where the railroad would not

otherwise have detected the violation in question. The conspiracy of silence is real on most, if not all, railroads. If the policy is applied to the employee who can benefit from treatment, then the railroad will benefit through early identification of the problem. If the policy is applied to an employee who violated the rule volitionally, the railroad will have identified an employee who requires closer supervision. In either case, the railroad will have obtained safety-related benefits not available except on those railroads where bypass agreements are in effect.

#### *Responsibility for Compliance*

Unfortunately, FRA cannot simply command the railroads to root out alcohol and drug use and expect that, even with best efforts, this will be done in every case. The safety problems posed by alcohol and drug abuse are present in every transportation mode and in most occupational settings, as well. The rules set forth in this notice will be effective only if employees and the railroads alike recognize that they are necessary to safety. Nevertheless, the Federal Railroad Safety Act contemplates an aggressive role for FRA in enforcing minimum safety requirements and the recognition of safety imperatives sometimes requires persuasion. Therefore, section 218.113 approaches the problem of alcohol and drug use from the point of view that what can be done ought to be done. First, the section prohibits any railroad from knowingly permitting any employee to go or remain on duty in covered service while in violation of § 218.103. Knowledge of noncomplying conduct on the part of the covered employee's immediate co-workers would *not* be imputed to the railroad, but knowledge by any other railroad employee would be imputed to the company.

Second, the section requires each railroad to exercise "due diligence" to assure compliance by its covered employees with the requirements of the entire subpart. The term "due diligence" is derived from judicial decisions, including some interpreting exceptions to the Hours of Service Act. As used in this context it is intended to denote a high standard of care to safeguard the public from the life-threatening consequences of alcohol and drug-caused accidents. However, it recognizes that individual employees may sometimes offend company policy, and places on the Government (or other party seeking to rely upon the standard) the burden of establishing that "due

diligence" was not exercised in the situation at hand.

Third, it prohibits any railroad from knowingly and willfully requiring an employee to submit to testing in reliance on the proposed rules without observance of the conditions and safeguards set forth in these rules. Although good faith errors in test procedures would not offend the purposes of these rules, any egregious or repeated violation of safeguards would diminish employee confidence in the integrity of the Federal alcohol and drug program and, inevitably, reduce their support for this policy.

Fourth, the railroads would be prohibited from disregarding the requirements of § 218.111 (identification of troubled employees). Again, good faith errors in implementing these policies would not be deemed to offend the Federal Railroad Safety Act, but knowing and willful deviations would be punishable.

Fifth, the railroads would be made strictly liable for other deviations from the requirements of the subpart (such as failure to conduct pre-employment tests or discharge their obligations to facilitate post-accident testing, maintain records or submit reports).

At the suggestion of the Association of American Railroads, a draft schedule of civil penalties has been included in this notice. Comments are requested on the schedule, which will constitute an integral part of any final rule.

#### *Improved Accident Reporting*

FRA is not persuaded by those who have argued that the existing accident reporting system is sufficient to document the involvement of alcohol and drugs in train accidents. To the contrary, change is clearly in order. For instance, of the fifteen (15) significant accidents listed in Table 2 that FRA or NTSB found to have involved alcohol or drugs, the railroads used FRA's alcohol/drug cause code to indicate primary or contributing cause in only six (6) cases. In none of the other nine (9) cases did the railroad's report to FRA indicate alcohol or drug involvement, despite the fact the railroad knew that FRA or NTSB had found evidence to that effect.

The problems with the present system are both internal and external. First, the system is presently structured to elicit only the "primary cause" and one "contributing cause" of each accident. Thus, a railroad whose impaired employees caused an accident by operating too fast on the curve of a poorly-maintained branch line might very well report that the causes of the accident were excessive speed (e.g., code 555) and track geometry (e.g., code

110). Such a report might be filed without the slightest intent to deceive and in full compliance with the reporting system as now conceived.

However, external factors also operate. As discussed above, the railroads may have reasons either to overlook or underplay the role of alcohol or drugs in certain accidents. More critically, FRA is convinced from its own investigations and knowledge of accident investigation practices that many railroads fail to specifically consider alcohol or drugs as potential factors in accident scenarios except where an employee exhibits behaviors so clearly out of the ordinary as to seize the attention of a carrier officer. Although FRA recognizes that investigators should not fixate on any particular aspect of an accident investigation to the exclusion of other relevant factors, greater attention to the causes of human failure is clearly required.

Therefore, FRA proposes to amend the Accident/Incident Reporting requirements (§ 225.17 of Part 225, title 49, Code of Federal Regulations) to require that the railroads make such specific inquiry as may be reasonable into the possible involvement of alcohol or drug use in train accidents. This requirement is intended to prompt conscious efforts to exclude or establish impairment as a factor in those accidents that, in the judgment of the railroad, involve human factors.

In any case where the railroad obtains information suggesting that an employee was impaired by alcohol or drugs at the time of the accident, whether or not this information is confirmed, and whether or not it is deemed relevant to the accident cause, the railroad would be required to so indicate through use of a special new reporting code. Where this code is used but impairment is not considered a causal factor, the railroad would be required to include in the narrative statement at the bottom of the reporting form a brief explanation of why the information of impairment was not deemed reliable or material to the cause.

#### *Preliminary Recommendations for Private Sector Action*

In addition to issuing the basic regulatory requirements set forth above, FRA proposes to issue recommendations for private sector action in support of the regulatory policies. These recommendations would offer specific concepts and techniques for potential action by the railroads, both singly and in concert with other railroads and the rail labor organizations. FRA will request the National Planning

Committee on voluntary programs for the prevention of alcohol and drug use to evaluate, refine, and assist in the implementation of these recommendations. FRA welcomes public comment on the following preliminary recommendations.

#### *FRA recommends that each Class I railroad:*

(A-1) Develop and implement procedures for the periodic review of the personnel records of each covered employee, including attendance records, injury and claim files, disciplinary records, and periodic physical examinations, to identify employees whose performance may be affected by alcohol or drug abuse.

(A-2) Establish and maintain an employee assistance program capable of competently serving all problem drinkers and drug users in the employ of the railroad through primary counseling and treatment and effective long-term follow-up.

(A-3) Establish and maintain education and awareness programs with the objective of preventing alcohol and drug use in covered service.

(A-4) Strengthen periodic medical examination procedures to assure that physicians look for symptoms of alcohol and drug abuse and analyze urine samples for alcohol and other drugs.

(A-5) In cooperation with FRA, explore the feasibility of including a motor vehicle records check in the pre-employment evaluation of applicants for positions in covered service.

#### *FRA recommends that all railroads:*

(A-6) In order to emphasize company commitment to employee fitness, prohibit on-duty alcohol and drug use by all officers and employees of the railroad who are involved in railroad operations, regardless of rank.

*FRA recommends that the railroads are recognized collective bargaining representatives of employees:*

(B-1) Establish permanent liaison relationships between the employee assistance programs and the union organizations with a view toward encouraging increased referrals of potential clients and better evaluation of program effectiveness. Encourage the use of volunteers, including recovered problem drinkers and problem drug users, to provide follow-up support for active EAP clients and former clients.

(B-2) Negotiate agreements permitting employees in non-scheduled service to decline calls under appropriate limitations and restrictions.

(B-3) Negotiate agreement provisions declaring that disputes related to disciplinary action for violations of Rule G shall be handled on their individual

merits and that neither party will seek to gain advantage in the handling of such a dispute by offering or accepting any consideration not related to any such dispute.

(B-4) Negotiate agreement provisions permitting the special assignment of recovering problem drinkers, problem drug users, and volitional Rule G offenders involving deviations, as necessary, from normal seniority rules and bidding procedures. In drafting the agreement, recognize the needs of recovering employees for regular duty hours and association with other employees who will affirm their sobriety and encourage the recovery process. Recognize the need of management to provide special supervision of Rule G violators who have been reinstated or who have been permitted to return to service without termination.

#### State Participation

The National Association of State Regulatory Utility Commissioners (NARUC) indicated that 12 of 21 commissions responding would be interested in participating in investigative and surveillance activities under any alcohol and drug rules issued by FRA. FRA's State Safety Participation Regulations (49 CFR Part 212) already provide appropriate mechanism to facilitate such participation. Any State providing investigative and surveillance activities in the area of operating practices would be free to participate in the application of these rules as soon as (i) its personnel have received the requisite training in the requirements of the rules and procedures for implementation of the rules (§ 212.223) and (ii) the State agency and FRA have developed an appropriate element for inclusion in the annual inspection plan (§ 212.109).

#### Preemption of State Law

The proposed rules would preempt any State laws or regulations that regulate the use of alcohol and drugs by employees engaged in railroad operations. See section 205 of the Federal Railroad Safety Act of 1970, 45 U.S.C. 434. However, the proposed rules set forth a civil regulatory scheme going principally to the obligations of railroads and do not specify sanctions running directly to individuals. FRA would not intend to preempt provisions of State criminal law that do not regulate alcohol and drug use by railroad employees, *per se*, but rather regulate alcohol and drug use generally or life-endangering conduct generally. FRA would expect to provide an opinion letter at the request of any State

regarding the intended preemptive effect of any final rules.

Section 218.109 would also preempt the application to the railroad industry of any provision of State law dealing with the testing of employees for alcohol or drug impairment as a part of the employment relationship.

Comment is requested concerning any problems or issues raised by the potential preemptive effect of the proposed rules.

#### Regulatory Impact

##### *E.O. 12291 and DOT Regulatory Policies and Procedures*

These proposed regulations have been evaluated in accordance with existing regulatory policies and are considered to be non-major under Executive Order 12291. However, they are considered to be significant under the DOT policies and procedures (44 FR 11034; February 26, 1979) because they initiate a substantial regulatory program.

Consequently, FRA has prepared and placed in the rulemaking docket a draft regulatory evaluation addressing the economic impact of the proposed rules. It may be inspected or copied at Room 5101, 400 Seventh Street, SW., Washington, D.C. 20590. Copies may also be obtained from the Docket Clerk, FRA, at the foregoing address.

The economic evaluation identifies total estimated benefits from avoidance of accidents and incidents of \$2,398,681 per year. The total first-year costs of the proposed rules, a substantial portion of which would be attributable to execution of consent forms by covered employees, are estimated at \$1,309,277. The benefit to cost ratio for the first year is 1.83:1. Costs for subsequent years are estimated at \$706,111, producing a benefit to cost ratio of 3.16:1.

These ratios are conservative for a number of reasons. For instance, the estimated benefits rely upon the documented data base, which is known to be incomplete, rather than on extrapolations. The estimated benefits do not include projections for avoidance of the following consequences of alcohol and drug-related accidents and incidents: costs of personal injuries in train accidents and incidents; non-railroad property damage in train accidents, including lading and improvements to adjacent property; emergency response costs; environmental clean-up costs; and incidental railroad costs such as wreck clearance, train delays, and higher crew costs. Further, FRA's benefit estimates do not include the indirect societal benefits that would be derived from

early identification of problem drinkers and drugs users.

An evaluation of alternatives to the proposed regulations is contained in the text of this notice.

#### *Regulatory Flexibility Act*

FRA certifies that this proposal will not have a significant economic impact on a substantial number of small entities. The proposed rules will apply only to railroads, and accordingly will have no direct impact on small units of government, businesses and other organizations. (As noted above, State rail agencies will be free to participate in administration of the proposed rules under streamlined administrative procedures, but will not be required to do so.) Although a substantial number of small railroads would be subject to these regulations, if adopted, the economic impact of the proposed rules would not be significant for several reasons. Only a very few accidents occur each year on small railroads that would require compliance with the post-accident testing provision of the rule. FRA proposes to except very small railroads from the requirement for pre-employment drug screens, and remaining small railroads would experience little impact because of the small number of new hires and the low per-unit cost of testing. The impact of the voluntary referral and co-worker report policies on small railroads is also projected to be insignificant. Small railroads are well situated to satisfy the requirements of the rules because of their small employee populations, geographically more compact operations, and greater capacity to provide close supervision.

FRA specifically requests comment on the impact of these rules on small entities and welcomes any suggestions for incorporating further appropriate exclusions in the final rules.

#### *Paperwork Reduction Act*

This proposed rulemaking contains information collection requirements in the following sections: §§ 218.105 and 218.107 of Part 218; § 225.17 of Part 225. They have been submitted to the Office of Management and Budget for approval under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). Persons desiring to comment on these information collection requirements should submit their comments to: Office of Regulatory Policy, Office of Management and Budget, 726 Jackson Place, NW., Washington, D.C. 20543, ATTN: Desk Officer, FRA. Persons submitting

comments to FRA as indicated under "ADDRESSES."

#### Environmental Impact

FRA has evaluated these proposed regulations in accordance with its procedures for ensuring full consideration of the environmental impacts of FRA actions as required by the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), other environmental statutes, Executive Orders and DOT Order 5610.1c. These proposed regulations meet the criteria that establish this as a non-major action for environmental purposes.

#### List of Subjects

##### 49 CFR Part 218

Railroad safety, Control of alcohol and Drugs.

##### 49 CFR Part 225

Railroad safety, Accident/incident reporting.

#### Request for Public Comment

FRA proposes to amend Parts 218 and 225 of Title 49, Code of Federal Regulations, as set forth below. FRA solicits comments on all aspects of the proposed rules and the data and analysis advanced in explanation of the proposed rules, whether through written submissions, or participation at the public hearings, or both. FRA may make changes in the final rules based on comments received in response to this notice.

**Authority:** Sections 202, 208 and 209 of the Federal Railroad Safety Act of 1970, as amended (45 U.S.C. 431, 437, 438) and § 1.49 of the Regulations of the Office of the Secretary of Transportation (49 CFR 1.49).

Issued in Washington, D.C., on June 5, 1984.

John H. Riley,

Federal Railroad Administrator.

#### Notes

(1) FRA has excluded from Table 1 two significant accidents in which alcohol and another drug may have played a role. In an accident at Angora, Nebraska, on the Burlington Northern, on February 16, 1980, the deceased employee found to have had a BAC of .074 was an engineer of helper locomotives. Although the movement involved was under the control of the engineer of the train that the units were being dispatched to assist, the sequence of events leading up to the accident may have proceeded differently if the impaired engineer had participated in decision making concerning the movement. The Angora accident resulted in 2 fatalities, 3 nonfatal injuries, and property damage in excess of \$1.5 million.

FRA recently investigated another accident in which circumstances strongly suggested use of illicit drugs by one or two crew members. That accident involved injuries and

substantial property damage. However, drug use could not be documented because adequate body fluid samples were not available.

(2) The railroad damage estimates used in this analysis are generally those compiled by FRA on the basis of information provided by the railroads during accident investigations. In three cases, they are the same as reported by the railroads on Form 6180-54. In others the railroad-reported total is lower or higher, a difference that usually results from revisions by the railroad in estimated repair and replacement costs as the carrier investigation continues and actual expenditures are made. Consistent use of the railroad-reported amounts would produce a net increase approximately \$4 million in the total damage estimates (uninflated).

(3) Numbers of employees used in this discussion are year-end totals for 1932, as reported to the Interstate Commerce Commission. Most available Rule G data relates to the period 1978 through 1982, and rail employment was in decline over that period.

(4) The Brotherhood of Locomotive Engineers appeared to contend that FRA could not issue regulations applying sanctions against alcoholics who are intoxicated on the job because "current federal law and policy recognize alcoholism as a handicap." The implication of the comment was that employers (and thus FRA) may not discriminate against uncontrolled alcoholics with respect to employment in safety-sensitive functions. Such is not the case. The Congress has made quite clear that the antidiscrimination provisions of the Rehabilitation Act of 1973 do not limit the discretion of employers to take action against uncontrolled alcoholics or drug abusers whose job performance is materially affected by the employee's condition or who, by reason of . . . current alcohol or drug abuse, would constitute a direct threat to property or the safety of others." 29 U.S.C. 706(7)(B), as amended by Pub. L. No. 95-601. See 6 U.S. Code Congressional and Administrative News, 95th Cong., 2d Sess. (1978) at 7333, 7352, 7413 (reprinting committee reports).

#### PART 218—[AMENDED]

In consideration of the foregoing FRA proposes to amend Chapter II, Subtitle B, of Title 49, Code of Federal Regulations as follows:

1. By amending Part 218 as follows:

a. Revise the title of the Part to read "Railroad Operating Practices."

b. Amend the table of contents to add new references as follows:

#### PART 218—RAILROAD OPERATING PRACTICES

\* \* \* \* \*

##### Subpart D—Control of Alcohol and Drug Use

Sec.

218.101 Definitions.

218.103 Alcohol and drug use by covered employees.

218.105 Post-accident toxicological tests.

218.107 Pre-employment drug screens.

218.109 Authority to test for cause.

218.211 Identification of troubled employees.

218.113 Responsibility for compliance.

\* \* \* \* \*  
Appendix B—Consent form.

c. Revise the introductory text of paragraph (b) of § 218.3 as follows:

§ 218.3 Application.

\* \* \* \* \*

(b) Subparts B and C of this part do not apply to—

\* \* \* \* \*

d. Add a new Subpart D to read as follows:

##### Subpart D—Control of Alcohol and Drug Use

##### § 218.101 Definitions.

As used in this subpart—

(a) "Alcohol" means ethyl alcohol (ethanol). References to use or possession of alcohol include use or possession of any beverage, mixture or preparation containing ethyl alcohol.

(b) "Covered employee" means a railroad employee who has been assigned to perform service subject to the Hours of Service Act (45 U.S.C. 61-64b) during a duty tour, whether or not the employee has performed or is currently performing such service.

(c) "Covered service" means service for a railroad that is subject to the Hours of Service Act (45 U.S.C. 61-64b).

(d) "Co-worker" means another employee of the railroad, including a working supervisor directly associated with a yard or train crew, such as a conductor or yard foreman, but not including any other railroad supervisor, special agent or officer.

(e) "Drug" means any controlled substance (as defined by 21 U.S.C. 802), with the exception of a controlled substance prescribed by a medical practitioner, if—

(1) the treating medical practitioner or a physician designated by the railroad has made a good faith judgment, with notice of the the employee's assigned duties and on the basis of the available medical history, that use of the substance by the employee at the prescribed dosage level is consistent with the safe performance of the employee's duties; and

(2) the substance is used at the dosage prescribed.

(f) "EAP counselor" means a person qualified by experience, education, or training to counsel persons affected by substance abuse problems and to evaluate their progress in recovering

from or controlling such problems. An "EAP counselor" may be a full-time salaried employee of the railroad or a practitioner who contracts with the railroad on a fee-for-service or other basis. As used in these rules, an EAP counselor is one who owes a duty to the railroad to make an honest and fully informed evaluation of the condition and progress of the employee and who is vested with the authority to determine when the employee has achieved sufficient progress in recovery to warrant the employee's resumption of normal duties.

(g) "Medical practitioner" means a physician or dentist licensed or otherwise authorized to practice by the state.

(h) "Possess" means to have on one's person or in one's personal effects or under one's control.

(i) "Supervisory employee" means an officer or employee of the railroad who is not a co-worker and who is responsible for supervising or monitoring the conduct or performance of one or more employees.

#### § 218.103 Alcohol and drug use by covered employees.

(a) No employee may use or possess alcohol or any other drug while assigned by a railroad to perform covered service. However, this rule shall not be construed to prohibit the presence of an unopened container of an alcoholic beverage in the employee's personal motor vehicle.

(b) No employee may report for covered service, or go or remain on duty in covered service, while under the influence of or impaired by alcohol or any other drug.

(c) An employee shall be conclusively presumed to be impaired—

(1) By alcohol, if the employee has a blood alcohol concentration of .05 percent (weight/volume) or more, as established by a method that is reliable within a known margin of error; and

(2) By any other drug, if the quantity of the drug in the employee's body fluids would be sufficient to affect the perception, mental processes or motor functions of an average person.

For the purpose of determining blood alcohol concentration through an analysis of the breath, the amount of alcohol in one part of blood shall be presumed to equal the amount of alcohol in 2100 parts of an expired breath sample (by volume).

#### § 218.105 Post-accident toxicological testing.

(a) *Mandatory testing procedures.* (1) Following each accident and incident described in paragraph (b) of this

section, the railroad (or railroads) shall take all practical steps to assure that all covered employees of the railroad directly involved in the accident or incident provide blood and urine samples for toxicological analysis by FRA. Such employees shall specifically include the operating employees responsible for any train or switching movement involved in the accident or incident.

(2) Every reasonable effort shall be made to assure that samples are provided as soon as possible after the accident or incident. This paragraph shall not be construed to inhibit the employees required to be tested from performing, in the immediate aftermath of the accident or incident, any duties that may be necessary for the preservation of life or property. However, where practical, the railroad shall utilize other employees to perform such duties.

(3) Samples shall be obtained, preserved, marked, handled, and made available to FRA under such procedures (consistent with this subpart) as the Associate Administrator for Safety, FRA, shall prescribe.

(4) Where practical, employees shall be transported to a health care facility independent of the railroad company, such as a hospital, clinic, or physician's office, where the samples shall be obtained. In all cases blood shall be drawn only by a qualified medical professional or by qualified technician subject to the supervision of a qualified medical professional. In seeking the cooperation of a medical facility in obtaining a sample under this subpart, the railroad shall, as necessary, make specific reference to the requirements of this subpart.

(5)(i) In the case of an injured employee, the railroad shall request the treating medical facility to obtain the samples. If the employee is unconscious or otherwise unable to affirm consent to the procedure and the treating medical facility declines to draw the sample, the railroad shall immediately make available to the facility the consent form required by paragraph (c) of this section and request that a blood sample be drawn. In the event the medical facility initially declines to cooperate in obtaining the required samples from an injured employee, the railroad shall immediately notify the Office of Safety, FRA, by telephone, through the appropriate FRA regional office or field office. FRA will then take appropriate measures to assist in obtaining the required samples.

(ii) Nothing in this subpart shall be construed to limit the discretion of a physician to determine whether drawing

a blood sample is consistent with the health of an injured employee or an employee afflicted by any other condition that may preclude drawing the specified quantity of blood.

(6) (i) In the case of an employee fatality the railroad shall immediately notify the appropriate local authority (such as a coroner's office) of the fatality and the requirements of this subpart, requesting the local authority to assist in obtaining the necessary body fluid or tissue samples.

(ii) If the local authority takes custody of the deceased for the purpose of conducting an autopsy or toxicological tests, the railroad shall immediately notify the Office of Safety, FRA, by telephone, through the appropriate FRA regional office and shall immediately deliver to such authority the consent form required by paragraph (c) of this section. The FRA will contact the local authority to obtain appropriate body fluid or tissue samples for testing.

(iii) If the local authority does not immediately take custody of the deceased, the railroad shall notify the Office of Safety, FRA, by telephone, through the appropriate FRA regional office, immediately making available to FRA the consent form required by paragraph (c) of this section. FRA will then take appropriate measures to obtain the necessary samples.

(b) *Accidents covered.* Post-accident toxicological tests shall be conducted for—

(1) Any passenger, freight, or work train accident described in § 225.19(c) of this title ("Rail equipment accident") that involves one or more of the following:

(i) A fatality;

(ii) A reportable injury to an employee or other person, as defined in § 225.5 of this title;

(iii) Damage to railroad property of \$150,000 or more; or

(iv) Release of hazardous materials, other than a release of a small quantity of product from the valves or fittings of a single tank car where—

(A) The tank remains upright;

(B) There is no damage to the tank; and

(C) The release does not occasion an evacuation.

(2) Any train incident that involves one or more of the following:

(i) A fatality; or

(ii) Loss of an arm, leg, or eye. However, no test shall be required in the case of a collision between railroad rolling stock and a motor vehicle or other conveyance at a rail/highway grade crossing or in the case of a train



incident consisting solely of a fatality or injury to a trespasser.

(c) *Consent requirement.* (1) Each railroad shall require as a condition of employment in covered service that each of its employees consent to testing under this subpart, and each employee engaged in covered service after the effective date of this subpart shall be deemed to have so consented.

(2) In order to assure that employees are made aware of the requirements of this subpart and to provide a record of consent of the employee to tests under this subpart, each employee in covered service shall execute a consent form containing the statements contained in Appendix B to this part. The writing shall be witnessed by at least one person familiar with the identity of the employee and shall be retained for the duration of the employee's service with the railroad, or until a replacement form is executed, in an office of the railroad as close as practical to the territory where the employee is assigned.

(d) *Notification of results.* FRA notifies the railroad and the tested employee of the results of the toxicological analysis and permits the employee to respond in writing to the results of the test prior to preparing any final investigation report concerning the accident or incident. Results of the toxicological analysis and any response from the employee are also promptly made available to the National Transportation Safety Board on request.

(e) *Sample retained.* Each sample provided under this subpart is retained for not less than six months following the date of the accident or incident and may be made available to the National Transportation Safety Board (on request) or to a party in litigation upon service of appropriate compulsory process on the custodian of the sample at least ten (10) days prior to the return date of such process. It is the policy of FRA to request the Attorney General to oppose production of the sample to a party in litigation unless a copy of the subpoena, order or other process is contemporaneously served on the Chief Counsel, FRA, Washington, D.C.

(f) *Report.* If the railroad is unable, as a result of noncooperation of an employee or any other reason, to obtain a sample and cause it to be provided to FRA as required by this section, the railroad shall make a concise narrative report of the reason for such failure and any responsive action taken to the cause of such failure (if appropriate). This report shall be appended to the report of the accident/incident required to be submitted under part 225 of this subchapter. In any case where FRA has been provided telephonic notice of any

problem in obtaining a sample (e.g., in the case of a fatality or injury requiring medical attention), the report required by this paragraph shall make reference to the date and time of such notification and the FRA representative who received the notice.

(g) *Condition on employment in covered service; sanction.* (1) An employee who declines to affirm consent to testing by executing the form required by this section shall not be assigned to or continued in covered service until the employee agrees to provide such consent.

(2) (i) An employee who refuses to cooperate in providing a blood or urine sample following an accident or incident specified in this section shall immediately be withdrawn from covered service for a period of at least six months following such accident or incident.

(ii) After withdrawing the employee from covered service under this paragraph, the railroad shall provide an opportunity for hearing before a carrier official other than the charging official. The hearing shall be convened within the period specified for post-suspension hearings in the applicable collective bargaining agreement. In the absence of an agreement provision, the employee may demand that the hearing be convened within 10 calendar days of suspension or, in the case of an employee who is unavailable due to injury, illness, or other sufficient cause, within 10 days of the date the charged employee becomes available for hearing. For purposes of this subpart, the only issue at such a hearing shall be whether the employee refused to submit to testing, having been requested to submit, under authority of this subpart, by a representative of the railroad or attending medical personnel.

#### § 218.107 Pre-employment Drug screens.

(a) On and after [the effective date of this subpart], each applicant for a position with a railroad that involves the performance of covered service shall be tested for the presence of alcohol and drugs. The test shall be accomplished through analysis of a urine sample or other reliable method. Whenever feasible, the sample shall be obtained in connection with a pre-employment physical examination.

(b) An applicant shall be advised as soon as practical, but not less than 7 days prior to the examination, that the applicant will be required to provide a urine or other body fluid sample for testing and that the sample will be tested for the presence of alcohol and drugs. In the case of an applicant who declines to be tested and withdraws the

application for employment, no record shall be maintained of the declination.

(c) The railroad shall cause the samples obtained under this section to be identified, preserved, and tested by a competent laboratory for the presence of drugs, including, at a minimum, the following substances: alcohol, opiates (narcotics), cocaine, barbiturates, amphetamines, cannabis, hallucinogens, and any other drug(s) identified by the carrier medical officer as in frequent use in the locality.

(d) If the first test of a sample is positive for any drug, the sample shall be tested a second time by another laboratory, or by another method, to confirm the finding.

(e) The railroad shall notify the applicant of the results of the test(s) and shall, in the case of a positive result, provide the applicant with an opportunity to explain the presence of the identified substance prior to taking any action on the application for employment.

(f)(1) Each railroad shall retain records of tests conducted under this section for at least 2 years and make them available to FRA for review. Such records need not reflect the identity of any applicant not employed in covered service.

(2) Not later than March 1 of each year the railroad shall report to FRA concerning pre-employment tests conducted in the previous calendar year. The report shall indicate the number of tests conducted and the number of those tests that were positive, inconclusive, and negative, respectively. With respect to positive tests, the report shall identify the substances detected (by generic name) and the number of tests with respect to which each such substance was detected. The report shall also contain a short narrative summary describing the current policy and practice of the railroad with respect to employment, and subsequent handling, of applicants whose tests were positive.

(g) An applicant who has refused to submit to pre-employment testing under this section shall not be employed in covered service during any period such refusal may continue.

(h) The requirements of this section shall not apply to any railroad that employs a total of not more than 15 employees who perform covered service.

#### § 218.109 Authority to test for cause.

(a) *Grant.* A railroad subject to this subpart may, upon just cause, and consistent with the provisions of this section, require any covered employee, as a condition of employment in covered

service, to cooperate in breath testing, urine testing, or both, to determine compliance with § 218.103 of this subpart or a railroad rule implementing the requirements of § 218.103. This authority is limited to duty hours (including any period of overtime or emergency service). Each covered employee shall be deemed to have consented to such testing. The provisions of this section apply only where, and to the extent that, the test in question is conducted in reliance upon the authority conferred by this section.

(b) *Just cause.* (1) The following circumstances constitute just cause for testing an employee under this section:

(i) A supervisory employee of the railroad has a reasonable suspicion that the employee is currently impaired by alcohol or any drug, based upon specific, personal observations that the supervisory employee can articulate concerning the appearance, behavior, speech or body odors of the employee;

(ii) The employee has been directly involved in an accident or incident reportable under Part 225 of this title; or

(iii) The employee has been directly involved in one of the following operating rule violations or errors:

(A) Occupancy of a block to which entry was not authorized;

(B) Failure to observe clearance limitations when setting out of rolling stock (on completion of a switching operation);

(C) Failure to protect a train as required by a rule consistent with § 218.37 of this part;

(D) Operation of on-track equipment at a speed at least 10 miles per hour greater than the maximum authorized speed prescribed by the railroad;

(E) Alignment of a switch in violation of a railroad rule or operation of a switch under a train or switching movement; or

(F) Violation of any other operating rule, timetable instruction, special instruction, general order, bulletin order, or other written directive of the kind which directly affects safe movement of a train, switching movement or live engine in a way that could result in a train accident (including any such violation detected in an operational or efficiency test).

(2) Nothing in this paragraph shall authorize testing of an employee after the expiration of a 12-hour period from the time of the observations or other events described in this paragraph.

(c) *Limitation on number of tests.* (1) No employee shall be required to cooperate in more than three test procedures in any 12-month period, or more than two test procedures in any 30-day period under paragraph (b) of this

section, except where a previous test of the employee during the previous 12 months was positive. Tests required by § 218.105 of this subpart shall not be counted toward these limitations.

(2) As used in this paragraph, a single "test procedure" may include the provision of both breath and urine samples. A single breath test procedure may include a follow-up test after a positive reading and may also include the provision of a breath sample for the purpose of preliminary screening. A urine test procedure may include the provision of not more than two samples from the same employee.

(3) If an employee is required to submit to a preliminary screening test the results of which are negative, the employee shall not be required to provide another breath sample during that duty tour.

(d) *Test safeguards.* (1) *Breath testing.* The following conditions apply to breath testing authorized by this section, other than tests the results of which are not used for disciplinary purposes:

(i) Testing devices shall be of evidential quality, as determined in accordance with standards or guidelines issued by the Department of Transportation, and shall be maintained and calibrated in accordance with the manufacturer's instructions;

(ii) Tests shall be conducted by a qualified operator in accordance with procedures specified by the manufacturer of the testing device, consistent with sound technical judgment, and shall include appropriate restrictions on ambient air temperature;

(iii) If an initial test is positive, the employee shall be tested again after the expiration of a period of not less than 20 minutes, in order to confirm that the test has properly measured the alcohol content of deep lung air; and

(iv) Any test result of less than .02 BAC shall be deemed a negative test.

(2) *Urine testing.* The following conditions apply to urine testing authorized by this section, other than tests the results of which are not used for disciplinary purposes:

(i) The sample(s) shall be collected at a place of reasonable privacy on the railroad (subject to the presence of one representative of the railroad of the same sex) or at an independent medical facility;

(ii) In the case of a sample obtained by a railroad representative, the sample shall be marked and sealed in the presence of the employee and the railroad shall maintain a controlled chain of custody of the sample and shall take reasonable precautions to maintain sample quality;

(iii) The sample(s) shall be analyzed by a reliable method and, if positive for a substance other than alcohol, shall be retested by a second laboratory or by another method; and

(iv) Any test result convertible to an estimated BAC below .02 shall be deemed a negative test for alcohol.

(3) *Employee option.*

(i) In any case where a breath test is intended for use in the disciplinary process and the result is positive, the employee shall be given the prompt opportunity to provide a blood sample at an independent medical facility for analysis by that facility or another independent laboratory. The railroad shall provide the required transportation to facilitate the blood test.

(ii) In any case where a urine test is intended for use in the disciplinary process, the employee shall also be given the prompt opportunity to provide a blood sample at an independent medical facility for analysis by that facility or another independent laboratory. This paragraph (d)(3)(ii) shall not apply in a case where the railroad utilizes a portable or other on-site urine testing method and the result of the urine test is negative.

(e) *Presumption.* If an employee has tested positive for a material quantity of alcohol or a drug in a urine test and the employee was afforded and declined the opportunity to provide a blood sample, the railroad (or a board of arbitration) may presume from the presence of alcohol or the identified drug that the employee was impaired by that substance within the meaning of § 218.103 of this subpart.

#### § 218.111 Identification of troubled employees.

(a) *Purpose.* The purpose of this section is to prevent the use of alcohol and drugs in connection with covered service by (1) identifying for treatment those employees who abuse alcohol or drugs as a part of a treatable condition and (2) eliciting the assistance of co-workers in enforcing this subpart and railroad alcohol and drug rules consistent with this subpart.

(b) *Voluntary referral policy.* (1) Each railroad shall adopt, publish and implement a policy conforming to the requirements of this paragraph.

(2) A covered employee who is affected by alcohol or drug abuse may retain an employment relationship with the railroad if, before the employee is charged with conduct deemed by the railroad sufficient to warrant dismissal, the employee (i) seeks assistance through the railroad for the employee's alcohol or drug abuse problem or is



referred for such assistance by a representative of the employee's collective bargaining unit, and (ii) agrees to undertake and successfully completes a course of treatment deemed acceptable by the EAP counselor. The policy shall further assure that the railroad treats the referral and treatment as confidential, except to the extent that the failure of an employee to complete the prescribed treatment necessitates action against the employee under the railroad's medical standards or is directly relevant to the disposition of an alcohol or drug-related disciplinary charge growing out of a subsequent transaction.

(3) The railroad shall, to the extent necessary for treatment and rehabilitation, grant the employee a leave of absence from the railroad for the period necessary to complete primary treatment and establish control over the employee's alcohol or drug problem, but not less than 45 days.

(4) The employee shall be returned to service on the recommendation of the EAP counselor.

(5) Nothing in this section shall be construed to require the application of this voluntary referral policy to any employee who has previously been assisted by the railroad under a policy or program substantially consistent with this paragraph or who has previously elected to waive investigation under paragraph (c) of this section.

(6) In order to obtain the benefit of the policy set forth in this paragraph, the employee must report to the EAP counselor or other contact designated by the railroad either (i) during non-duty hours or (ii) while unimpaired and otherwise in compliance with the railroad's alcohol and drug rules consistent with this subpart.

(c) *Co-worker report policy.* (1) Each railroad shall adopt, publish and implement a policy conforming to the requirements of this paragraph.

(2) A covered employee may retain an employment relationship with the railroad following an alleged first offense under these rules or the railroad's alcohol and drug rules, subject to following conditions:

(i) The alleged violation must come to the attention of the railroad as a result of a report by a co-worker that the employee was apparently unsafe to work with or was, or appeared to be, in violation of this subpart or the railroad's alcohol and drug rules.

(ii) If the railroad representative determines that the employee is in violation, the railroad may immediately remove the employee from service in accordance with its existing policies and procedures.

(iii) The employee must elect to waive investigation on the rule charge and report, within 5 days, for evaluation by an EAP counselor.

(iv) If the EAP counselor determines that the employee is affected by psychological or chemical dependence on alcohol or a drug or by another identifiable and treatable mental or physical disorder involving the abuse of alcohol or drugs as a primary manifestation—

(A) The railroad shall, to the extent necessary for treatment and rehabilitation, grant the employee a leave of absence from the railroad for the period necessary to complete primary treatment and establish control over the employee's alcohol or drug problem, but not less than 45 days.

(B) The employee must agree to undertake and successfully complete a course of treatment deemed acceptable by the EAP counselor.

(C) Subject to paragraph (c)(2)(iv)(D) of this section, the railroad shall promptly return the employee to service when the EAP counselor determines that the employee has established control over the substance abuse problem and is prepared to discharge the employee's responsibilities in a safe manner.

(D) The railroad may also require that the employee have successfully completed a return-to-service physical of the kind customarily required by the railroad.

(v) If the EAP counselor determines that the employee is not affected by an identifiable and treatable mental or physical disorder—

(A) The railroad shall return the employee to service within 15 days.

(B) During or following the out-of-service period, the railroad may require the employee to participate in a program of education and training concerning the effects of alcohol and drugs on occupational or transportation safety.

(d) *Construction.* (1) Nothing in this section shall be construed to—

(i) Require payment of compensation for any period an employee is out of service under a voluntary referral or co-worker report policy required by this section;

(ii) Require a railroad to adhere to a voluntary referral or co-worker report policy in a case where the referral or co-worker report policy in a case where the referral or report is made for the purpose or with the effect, of anticipating the imminent and probable detection of a rule violation by a railroad representative; or

(iii) Limit the discretion of the railroad to adopt any policy or enter into any agreement with respect to alcohol or drug-related discipline or treatment

consistent with the minimum requirements of this section.

(e) *Other conduct.* Nothing in this section shall be construed to limit the discretion of a railroad to dismiss or otherwise discipline an employee for—

(1) Specific rule violations other than violations of alcohol or drug rules or for other prohibited conduct, except as provided in paragraph (c) of this section; or

(2) The commission of a criminal offense on railroad property or during duty hours.

#### § 218.113 Responsibility for compliance.

(a) A railroad that—

(1) Knowingly requires or permits an employee to go or remain on duty in covered service in violation of § 218.103;

(2) Fails to exercise due diligence to assure compliance with this subpart by a covered employee;

(3) Knowingly and willfully requires an employee to submit to breath or body fluid testing in reliance on this subpart without observance of the conditions and safeguards contained in this subpart;

(4) Fails to adopt or publish, or knowingly and willfully fails to implement, a policy required by § 218.111 of this subpart; or

(5) Fails to comply with any other requirement of this subpart;

shall be deemed to have violated this subpart and shall be subject to a civil penalty as provided in Appendix A.

(b) For purposes of paragraph (a)(1) of this section, the knowledge of a covered employee or that employee's co-workers shall not be imputed to the railroad.

*e. In Appendix A, revise the column heading line and add entries for §§ 218.103, 218.105, 218.107, 218.109, and 218.111 as follows:*

#### APPENDIX A.—SCHEDULE OF CIVIL PENALTIES

Section	Violation	Intentional violation
218.103	Employee required or permitted to go or remain on duty while impaired.	
	Knowing (negligent)	\$2,000
	Knowing and willful	\$2,500
	Failure to exercise due diligence to prevent violation of section.	1,750 2,500
218.105	Failure to take action to obtain samples for testing and promptly forward samples to FRA.	1,000 2,000
	Failure to notify FRA of employee injury or death requiring FRA intervention.	1,000 2,000
	Failure to see that consent form is executed (any employee).	250 1,000
	Failure to report with respect to any accident for which requisite samples were not obtained.	750 1,500

APPENDIX A.—SCHEDULE OF CIVIL  
PENALTIES—Continued

Section	Violation	Intentional violation <sup>1</sup>
	Failure to take action against employee who refuses to execute consent or provide samples.	1,000 2,000
	Failure to observe other requirements (e.g., labeling of samples, obtaining samples at medical facility, etc.).	750 1,250
218.107.....	Failure to perform pre-employment drug screen; applicant employed in covered service.	500 1,000
	Failure to observe other requirements.	250 750
218.109.....	Testing in reliance on this section without observance of conditions and safeguards.	2,000
218.111.....	Failure to adopt or publish policy.	2,500
	Wholesale failure to implement policy.	2,500
	Failure to implement as to individual employee.	1,000 2,000

f. Add a new Appendix B, to read as follows:

## Appendix B—Consent Form

The consent required by § 218.105(c) shall be executed substantially in the following form:

## Consent To Post-Accident Toxicological Tests

I hereby consent to cooperate in the program of post-accident toxicological testing required by regulations of the Federal

Railroad Administration (FRA) by providing body fluid samples (including breath, blood, and urine, as requested) in the event I am involved in an accident or incident specified in those regulations, as currently in force or hereafter modified. This consent extends to, and includes, the extraction of such samples, if necessary, while I am unconscious or otherwise unable to communicate as a result of injuries sustained in the accident or incident, consistent with the judgment of the attending physician that the procedure is not materially detrimental to my health. I further consent to the extraction of necessary body fluid samples or tissue samples, or both, from my remains in the event that I suffer fatal injuries during such an accident or incident.

I understand that cooperating in post-accident tests required by FRA and executing this consent is required of me as a condition of continued employment in service subject to the Hours of Service Act and that any failure to cooperate in post-accident testing as required by FRA regulations would result in disciplinary action against me. I further understand that this consent is revocable only upon my resignation from employment in service subject to the provisions of the Hours of Service Act, as amended.

Signed by: \_\_\_\_\_

(Type employee's name under signature)

Date signed: \_\_\_\_\_

Railroad name: \_\_\_\_\_

[May be preprinted anywhere on form]

Employee's regular work location  
(headquarters or reporting point):

Subscribed before me by the person known to me as \_\_\_\_\_ on the date shown above at (enter location \_\_\_\_\_).

(Witness) \_\_\_\_\_

(Witness) \_\_\_\_\_

## PART 225—[AMENDED]

2. By revising paragraph (d) of § 225.17 as follows:

§ 225.17 Doubtful cases; alleged alcohol or drug involvement.

\* \* \* \* \*

(d) In preparing a Rail Equipment Accident/Incident Report under this part, the railroad shall make such specific inquiry as may be reasonable under the circumstances into the possible involvement of alcohol or drug use or impairment in the circumstances of such accident or incident. If the railroad comes into possession of any information whatsoever, whether or not confirmed, concerning alleged alcohol or drug use or impairment by an employee who was involved in, or arguably could be said to have been involved in, the accident/incident, the railroad shall report such alleged use or impairment as provided in the current FRA Guide for Preparing Accident/Incident Reports. If the railroad is in possession of such information but does not report alcohol or drug impairment as the primary or contributing cause of the accident/incident, then the railroad shall include in the narrative statement of such report a brief explanation of the basis of such determination.

[FR Doc. 84-15479 Filed 6-8-84; 10:00 am]

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**Tuesday  
June 12, 1984**

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**Part III**

**Department of  
Transportation**

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**Research and Special Programs  
Administration**

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**49 CFR Parts 171, 172, 173, 176, 178,  
and 179**

**Cryogenic Liquids, Revisions; Final Rule;  
Petitions for Reconsideration**

## DEPARTMENT OF TRANSPORTATION

## Research and Special Programs Administration

## 49 CFR Parts 171, 172, 173, 176, 178, and 179

[Docket No. HM-115, Amdt. Nos. 171-74, 172-82, 173-166, 176-17, 178-77, 179-32]

## Cryogenic Liquids, Revisions

**AGENCY:** Materials Transportation Bureau (MTB), Research and Special Programs Administration, Department of Transportation.

**ACTION:** Final rule; petitions for reconsideration.

**SUMMARY:** This document makes additional revisions to a final rule published under Docket HM-115 (48 FR 27674; June 16, 1983), which amended the Hazardous Materials Regulation (HMR) (49 CFR Parts 171-179) by establishing requirements for the transportation of certain cryogenic liquids. These revisions are made in response to 18 petitions for reconsideration to the final rule.

Some significant changes to the rule are provisions—

1. To allow the installation of rubbing or abrading, anodized aluminum parts in cylinders and cargo tanks in cryogenic oxygen service;
2. To allow the installation of an aluminum valve, pipe or fitting external to the jacket of a cargo tank provided that no lading is retained in these parts during transportation;
3. To exclude cargo tanks in atmospheric gas (except oxygen) service and helium service from the requirement of a primary and a secondary pressure relief device system of equal capacities;
4. To allow a secondary system of frangible discs or pressure relief valves on cargo tanks in other than carbon monoxide service;
5. To authorize additional pressure control valve settings for DOT-4L cylinders;
6. To authorize construction of a 22 gauge stainless steel non-evacuated jacket on MC-338 cargo tanks;
7. To authorize evacuated jackets constructed of materials meeting ASME or ASTM specifications on MC-338 cargo tanks;
8. To authorize a minimum steel thickness of 0.110-inch for the tank of vacuum insulated MC-338 cargo tanks; and
9. To authorize alternate procedures for determining the heat transfer rate and holding time of MC-338 cargo tanks used in nonflammable cryogenic liquid service.

**EFFECTIVE DATE:** October 1, 1984.

However, compliance with the regulations as amended herein is authorized on and after June 12, 1984. The incorporation by reference was approved by the Director of the Federal Register effective on June 12, 1984.

**FOR FURTHER INFORMATION CONTACT:**

Jose Pena, (202) 755-4908 or Hattie Mitchell, (202) 426-2075, Office of Hazardous Materials Regulation, 400 Seventh Street, S.W., Washington, D.C. 20590. Office hours are 8:30 a.m. to 5:00 p.m., Monday through Friday, except holidays.

**SUPPLEMENTARY INFORMATION:** On June 16, 1983, MTB published a final rule in the Federal Register under Docket No. HM-115 (48 FR 27674). MTB received 18 petitions for reconsideration to certain provisions of the final rule. A majority of the requested changes were contained in a petition submitted by the Compressed Gas Association (CGA).

Several petitioners objected, among other issues, to changes to proper shipping names and identification number prefixes to certain entries of the Hazardous Materials Table (the Table), in § 172.101, and requested the effective date of the final rule be postponed. MTB believed those issues warranted immediate handling so that changes could be included in the 1983 edition of Title 49, Code of Federal Regulations, Parts 100-199. Therefore, MTB separated those issues from other issues raised in the petitions and handled them in a document which was published in the Federal Register on November 1, 1983 (48 FR 50440). In that document, MTB postponed the mandatory effective date of the final rule until October 1, 1984. MTB also revised the proper shipping names for the cryogenic liquids and cold form gases to include the international descriptor, "refrigerated liquid" and the identification number prefix was changed from "NA" to "UN". Entries for cryogenic liquid were designated "*(cryogenic liquid)*", in the Table, to distinguish those gases from cold form gases such as carbon dioxide, nitrous oxide, and hydrogen chloride. For compressed gases, MTB provided for continued use of the descriptions as presently found in the HMR as well as for the optional use of the international descriptions which include the word "compressed". For example, "Argon, compressed" and, for domestic transportation only, "Argon" are acceptable descriptions. Other substantive issues raised in the petitions are addressed in this document.

Several issues raised by the petitioners are addressed in earlier preamble discussions. For additional

information, readers are referred to preamble discussions which appeared in the notice of proposed rulemaking (NPRM) (44 FR 12828, March 8, 1979), and related correction documents (44 FR 20461, April 5, 1979; 44 FR 36211, June 21, 1979), the final rule (48 FR 27674, June 16, 1983) and the correction and revision document of November 1, 1983 (48 FR 50440).

**Tanks Operating Under DOT Exemptions**

Under the final rule, the owner or person using a cargo tank or tank car under, "and in compliance with," a DOT exemption issued before October 1, 1984, if required to remove the DOT exemption number stenciled on the cargo tank or tank car and stamp the identification plate, as specified by § 173.31(a)(8) or § 173.33(b)(2), with the proper specification.

Several petitioners pointed out that the phrasing of §§ 173.31(a)(8) and 173.33(b)(2) implies that tank cars and cargo tanks must continue to be used in conformance with the terms of the exemptions. This is not MTB's intention. Tank cars and cargo tanks which are remarked as specification packagings cease to be governed by their previous exemption. Instead, they are subject to the applicable requirements, conditions, and limitations prescribed in the HMR. Sections 173.31(a)(8) and 173.33(b)(2) are revised for clarity. Section 173.33(b)(2) is revised for consistency with §§ 173.31(a)(8) and 173.33(b)(3).

Sections 173.31(a)(8), 173.33(b)(2) and (b)(3) require the owner or the operator, if not the owner, to retain a copy of the exemption that was in effect on September 30, 1984. It is not MTB's intention to require renewal of an exemption for the purpose of having a valid exemption on September 30, 1984. Also MTB did not specify where the exemption must be retained. The rule is revised to require that the exemption in effect at the time a tank car or cargo tank is remarked as a DOT specification packaging be retained on file during the period the tank car or cargo tank is in service. MTB does not agree with a petitioner who suggested that it is necessary for a copy of the exemption to be carried with each cargo tank as was required under the exemption. However, this does not prevent any person from carrying a copy of the exemption on a cargo tank.

After October 1, 1984, an exemption affecting a cargo tank or tank car of a type covered by the final rule will not be renewed unless the holder of the exemption submits information to the Associate Director for Hazardous

Materials Regulation stating the reason why the tank does not qualify for remarking as a specification packaging.

All applicable DOT exemptions are listed in the preamble on page 27678 of the final rule. Other exemptions affected by the rule are as follows:

*Exemptions—MC-338 type Cargo Tanks*

E-7227  
E-8602 (Model HL 1920M)  
E-8644

*Exemptions—Class DOT-105 Tank Cars*

E-3992

*Exemptions—MC-330 or MC-331 Cargo Tanks*

E-6215  
E-8199

**Pressure Relief Device Systems**

CGA and several other petitioners took exception to the requirement for a primary system of one or more spring loaded pressure relief valves and, except for tanks in carbon monoxide service, a secondary system of one or more frangible discs. CGA requested that the requirement be revised to permit cargo tanks to be equipped with a primary system consisting of spring loaded or pilot-operated pressure relief valves and a secondary system consisting of frangible discs or pressure relief valves. CGA maintains that a complete blowdown of certain ladings may present a greater hazard than controlled relief of the hazardous material through a spring loaded pressure relief valve. After further consideration, MTB agrees, in part, with CGA and other petitioners. MTB has revised § 173.318(b)(1)(i) to provide for a primary consisting of one or more pressure relief valves and a secondary system of one or more frangible discs or pressure relief valves. The pressure relief valves of the primary and secondary systems may be any type of pressure relief valve designed to automatically open and close at predetermined pressure. This option on use of frangible discs does not apply to the secondary system on cargo tanks in carbon monoxide service which are required to be equipped only with pressure relief valves.

CGA and other petitioners requested revision of subparagraph 173.318(b)(1)(viii) which contains a requirement that any shut-off valve or device that interferes with the proper operation of a pressure control valve must be designed and installed so that the cargo tank may not be operated for transportation purposes when the pressure control valve operation is impeded.

In its comments to the requirement, CGA stated:

The present wording would require an interlock so that the vehicle could not be operated if the pressure control operation is impeded. This would lead to an unsafe condition at the time of final unloading of a flammable refrigerated liquid. Even though the liquid has been completely drained and the gas pressure has been reduced to atmospheric pressure on the return trip, there is the hazard of venting flammable gas if the pressure is controlled by the low pressure road valve rather than by the higher set pressure relief valve. This is because the refrigeration heat sink of liquid is no longer present to absorb the constant incoming steady heat leak. The heat leak instead goes into warming the residual cold gas, and the gas pressure can rise quite rapidly as a result, possibly exceeding the road relief valve setting before the return is completed. Current industry practice is usually to transfer from the road relief valve to the pressure relief valve on the return trip.

The present wording also precludes the provision for multiple deliveries at increasingly higher pressure levels between deliveries without venting gas to the lowest pressure level at which the cargo tank was loaded. This is contrary to a number of present exemptions that allow this type of operation. Such exemptions include E-2703, E-4490 and E-7192.

In addition to this revision to Section 173.318(b)(1)(viii), corresponding revisions should be made to Section 173.318(g), 173.318(g)(3), 177.840(j), 177.840(k), 177.840(k)(3), 178.338-9(a), 178.338-9(a)(1), 178.338-9(b)(1), 178.338-9(b)(2), and 178.338-18(b)(9).

On further consideration, MTB agrees that the provision in subparagraph 173.318(b)(1)(viii) may require that the residual lading be reduced to impracticable levels at final unloading in order to prevent venting when pressure is controlled (limited) by the pressure control valve. MTB also agrees that the interlock requirement would preclude multiple deliveries without venting appreciable quantities of lading at each delivery point. Accordingly, subparagraph (b)(1)(viii) is removed. Remaining subparagraphs (ix) and (x) are renumbered as subparagraphs (viii) and (ix), respectively. Paragraph (g)(3) is removed and a revision is made to the introductory text of paragraph 173.318(g) to permit the display of more than one one-way-travel-time (OWTT) marking on a cargo tank. CGA's other requests for reconsideration are denied since they are not necessary with the removal of subparagraph 173.318(b)(1)(viii).

CGA requested a revision to § 173.318(b)(2)(i) to exclude cargo tanks in atmospheric gas (except oxygen) service and helium service from the requirement of primary and secondary pressure relief device systems of equal

capacities. CGA maintained that MTB made distinctions in other sections between nonflammable ladings versus flammable and oxygen ladings based on the fact that atmospheric gases (except oxygen) and helium do not intensify a fire in fire exposure incidents. Thus, CGA asserts that it is unnecessary to apply the redundancy for flow capacity based on fire conditions for both the primary and secondary systems for atmospheric gases (except oxygen) and helium. MTB agrees and grants the request for reconsideration by revising subparagraph (b)(2)(i) to allow cargo tanks used in atmospheric gas (except oxygen) and helium service to be equipped with the primary system only.

CGA requested that the secondary system have a minimum total capacity at a pressure not to exceed 120% of the tank design pressure in place of 150% as prescribed by § 173.318(b)(2)(iii). CGA maintained that the change in the setting would provide a greater margin of safety. MTB believes the change is unnecessary and the request for reconsideration is denied. Section 173.318(b)(2)(iii) specifies that the pressure of the secondary system may not exceed 150 percent of the tank design pressure. Therefore, a pressure at 120 percent of the tank design pressure is permitted. MTB specified the secondary system at a minimum total capacity of 150 percent to allow the secondary system to function after the primary system which relieves at a pressure of 120% of the tank design pressure. MTB believes these systems should operate in sequence to provide for a controlled release of the lading.

CGA requested revision of the requirement that the primary system of pressure relief valves must have a liquid flow capacity equal to or exceeding the maximum rate at which the tank is to be filled at a pressure not to exceed 120% of the tank design pressure in subparagraph (b)(2)(iv). CGA maintained that a tank filled by pumping equipment which is capable of producing pressures in excess of the design pressure of the tank may be equipped with a by-pass on the pump discharge or other suitable method to prevent accumulation of pressures in the tank in excess of 120% of the tank design pressure. MTB does not agree and the request for reconsideration is denied. MTB believes that the design and construction of the primary pressure relief valves should be capable of sustaining a flow capacity at pressures not to exceed 120% of the tank design pressure during filling operations. CGA provided no information on the adequacy or fail-safe function of a by-

pass on a discharge pump or other special controls that will prevent excessive pressure build-up in tanks used for cryogenic liquids. Therefore, no change is being made to the provision.

*Section 171.7.* MTB is adding in paragraph (d)(5) certain ASTM Standards which are referenced in §§ 173.316(a)(4), 173.318(a)(4) and 178.338-2(a).

*Section 171.8.* A petitioner requested that the temperature reference in the definition of "SCF" (Standard Cubic Foot) be changed from 60°F. to 70°F. for consistency with the U.S. industry standard contained in CGA Pamphlet P-11, "Metric Practice Guide" and the temperature used to define a compressed gas in § 173.300. MTB does not agree and the request for reconsideration is denied. The term "SCF" defines the standard conditions used to determine the relieving capacity of pressure relief devices. These standard conditions of 60°F. and 14.7 psia are presently contained in the HMR and are consistent with those used by CGA for determining and sizing pressure relief devices in CGA Pamphlets S-1.1 and S-1.2. No change is made in the definition.

*Section 172.101.* A petitioner stated that the provision for ethylene, refrigerated liquid to be stowed "below deck" on cargo vessels is unsafe and is inconsistent with stowage requirements applicable to other flammable cryogenic liquids. MTB agrees with the petitioner and grants the request for reconsideration by removing the "3" in column 7(a) of the Table.

A petitioner objected to the provision prohibiting the transportation of hydrogen, refrigerated liquid on a cargo vessel. The petitioner argued that the prohibition on hydrogen, refrigerated liquid is inconsistent with requirements that apply to other flammable cryogenic liquids, such as natural gas and carbon monoxide, and that the "light density of hydrogen vapor and up-and-away venting provide an adequate margin of safety." The petitioner argued that there is exemption experience to support transporting cargo tanks and portable tanks containing hydrogen, refrigerated liquid on a cargo vessel "on deck". MTB and Coast Guard, which assisted MTB in the preparation of the final rule, maintain that because of its very wide flammability range and the fact that it burns with an invisible flame, hydrogen poses a greater potential hazard than other flammable cryogenic liquids. MTB considers it necessary to apply special safety controls for hydrogen when transported on board a cargo vessel or a case-by-case basis by exemption. To allow transportation of hydrogen under

regulations of general applicability would not assure adequate safety and, therefore, the request for consideration is denied.

A petitioner requested that the quantity limitation in one package of argon, refrigerated liquid be increased from 300 pounds to 1,100 pounds by cargo aircraft for consistency with the quantity limitation authorized for nitrogen, neon, and helium, and for consistency with the quantity limitation for argon, refrigerated liquid adopted by the Dangerous Goods Panel of the International Civil Aviation Organization (ICAO). MTB agrees with the petitioner that the quantity limitation should be consistent with that recommended by ICAO. MTB is granting the request for reconsideration by revising the Table to provide for 1,100 pounds of argon, refrigerated liquid to be transported by cargo aircraft.

*Section 173.23.* A petitioner correctly pointed out that cylinders meeting the DOT-4L specification are not required to be retested and, therefore, the schedule for remarking cylinders manufactured under DOT E-6668 or E-8404 should be changed. MTB grants the request for reconsideration by revising paragraph (e) to require the cylinders be remarked "DOT-4L" by January 1, 1986. (This requirement appeared as paragraph (d) in the rule and was redesignated paragraph (e) under Docket HM-189 which was published in the Federal Register on November 1, 1983; 48 FR 50444.)

*Section 173.31.* Two petitioners took exception to the prohibition in paragraph (a)(9) against new construction of DOT-113D120W tank cars made with nickel alloy steel inner tanks which are authorized under DOT exemption. One of the petitioners maintained that there is no technical reason or unsatisfactory exemption experience to support prohibiting new construction of DOT-113D120W tank cars. The other petitioner alleged that MTB based its decision on disallowing new construction of DOT-113D120W tank cars merely on the fact that there has been no new construction of the tank car since 1973. MTB agrees, in part, with both petitioners. MTB conducts continuing reviews of packagings authorized for use in the HMR to remove specifications which are no longer being manufactured. MTB does not believe these efforts would be well-served by providing for new construction of a tank car in the HMR when there is no evidence of demand for its construction. Therefore, the petitioner's request for reconsideration is denied. However, because of the satisfactory safety record of existing DOT-113D120W tank cars,

MTB believes continued use of existing tank cars should be authorized.

The Association of American Railroads (AAR) pointed out that requirements for the retest of the alternate pressure relief valve on DOT-113D120W tank cars were omitted in the final rule. MTB is revising subparagraph (c)(13)(v) to correct this oversight and specify the same test procedure as is required for DOT-113C120W tank cars.

Three petitioners pointed out that new § 173.314(c) authorizes DOT-105A600W tank cars for hydrogen chloride service, but does not provide for DOT-105 tank cars in hydrogen chloride service that are authorized under DOT E-3992. MTB agrees with the petitioners. Omission of existing tank cars, built with ASTM A 212B steel to low temperature ASTM A300 testing qualifications, under DOT E-3992 was an oversight. MTB grants the petitioners' request for reconsideration by adding a new paragraph (a)(10) to authorize continued use of these tank cars.

*Section 173.33.* Changes to this section are addressed earlier in this preamble under the heading "Tanks Operating Under DOT Exemptions".

*Section 173.300.* CGA requested that the definition of "cryogenic liquid" in paragraph (f) be removed and a new definition for "refrigerated liquid" be added to read: "A refrigerated liquid is a cold liquefied gas which, when charged into an insulated transport container, cannot be held indefinitely due to vaporization or pressure rise caused by heat transfer from the surroundings." CGA also requested that the descriptor "cryogenic liquid" be changed to "refrigerated liquid" each time it appears in the HMR. MTB is denying the request for reconsideration because CGA's suggested definition provides no distinction between the so-called "cold form gases", such as carbon dioxide, nitrous oxide, hydrogen chloride and vinyl chloride, which are not regulated as cryogenic liquids.

CGA also suggested a second alternative to adding the above definition of "refrigerated liquid". The alternative provided for adding a sentence at the end of the present definition of "cryogenic liquid" to read: "A material meeting this definition is described as a 'Refrigerated liquid' in Part 172 of this subchapter". MTB agrees and grants the request for reconsideration. In the November 1 correction document, MTB authorized the international descriptor, "refrigerated liquid", to be a part of the proper shipping name for cryogenic liquids and the cold form gases. The cryogenic liquid descriptions were

specifically identified in italics in the Table to distinguish the cryogenic gases from the cold form gases. Therefore, at the end of the definition for cryogenic liquid, MTB is adding a clarification that materials meeting the definition are described, in part, as " \* \* \*, refrigerated liquid (*cryogenic liquid*)" in the Table.

MTB is revising the definition of a cryogenic liquid to clarify that these materials may not meet the definition of a compressed gas in paragraph (a).

**Section 173.314.** MTB is revising the entry for vinyl fluoride in the table in § 173.314(c) to continue the applicability of Note 23. Note 23, as amended under Docket HM-175 (49 FR 3468, January 27, 1984), requires each class 105 tank car built after August 31, 1981, to conform to specification 105J. Tank cars built before September 1, 1981, with a capacity exceeding 18,500 gallons and used to transport flammable gases are required to be retrofitted by December 3, 1986, to conform to specification 105J.

The AAR and another petitioner requested that paragraph (g)(2) be revised by adding a provision that appears in DOT E-3992 that requires tank cars in hydrogen chloride service to be weighed when full and when empty. Prior to offering an empty tank car for transportation, the car must be emptied below three percent of weight of the original load. The requirement is similar to Rule 35 of the Uniform Freight Classification. MTB is considering addressing tank cars containing a residue of a hazardous material in a proposed rule in the future and, therefore, the request for reconsideration is denied. Upon consideration, MTB also believes the requirement that the pressure in a empty tank car may not exceed 70 psig is unnecessary in view of requirements in § 173.29(c). Accordingly, paragraph (g)(2) is removed and paragraph (g)(3) is redesignated paragraph (g)(2).

**Section 173.316.** Two petitioners objected to a provision in paragraph (a)(4) prohibiting cylinders in oxygen service from having aluminum valves or fittings with internal rubbing or abrading aluminum parts which may come in contact with cryogenic oxygen. One petitioner believed it was MTB's intention to apply the provision prohibiting rubbing or abrading aluminum parts to cargo tanks in oxygen service and not to cylinders in oxygen service. Both petitioners maintained that safety experience has been satisfactory in using " \* \* \* an anodized aluminum body with an internal anodized aluminum piston \* \* \*."

MTB believes that internal rubbing or abrading aluminum parts which may

come in contact with cryogenic oxygen must not be used in any cylinder used to transport cryogenic oxygen. The prohibition is needed because of the potential for ignition and subsequent rapid burning of aluminum when subject to fire engulfment temperatures, to friction heat from abrasion, or high oxygen flow velocities over surfaces with sharp projections or abrupt directional changes. However, MTB agrees with the petitioners that anodized aluminum has a lower friction coefficient than non-anodized aluminum. Therefore, MTB is granting the request for reconsideration by revising paragraph (a)(4) to allow the use of rubbing or abrading aluminum parts that have been anodized in conformance with ASTM Standard B 580 in cylinders used in oxygen service. A similar change is made to § 173.318(a)(4) for cargo tanks in oxygen service.

A petitioner requested that paragraph (b) be revised by referencing § 173.304(b)(2) for requirements on pressure control valves. MTB agrees with the petitioner that the paragraph should be clarified. However, MTB would be in error to reference paragraph 173.304(b)(2) since it was removed in the final rule. The requirements pertaining to pressure control valves on cylinders which appeared in paragraph 173.304(b)(2) are contained in CGA Pamphlet S-1.1. These requirements are made applicable by § 173.34(d), which incorporates CGA Pamphlet S-1.1. For clarity, MTB is revising paragraph (b) by replacing the words "pressure control valve" with the words "pressure control system" in the paragraph heading and text.

MTB is revising the introductory text of paragraph (c) to clarify that DOT-4L cylinders containing a cryogenic liquid must be transported in the vertical position.

Two petitioners requested that the table in paragraph (c)(2) be amended by adding additional filling densities to allow for pressure control valve settings at  $1\frac{1}{4}$  times a marked service pressure of 500 psi for DOT-4L cylinders. MTB received data supporting filling densities at settings of 450, 540, and 625 psig from one petitioner. The petitioner argued against reducing pressure control valve settings on DOT-4L cylinders by 15 psi. The petitioner contends: "The control valve pressure settings in the table represent ranges of pressure. Thus, if a control valve setting of 235 psig for a vacuum insulated DOT-4L200 cylinder were required ( $200 \times 1.25 = 250 - 15 = 235$ ), the value of the filling density of 295 psig would be used because an entry for 235 psig does not exist." Also, the

petitioner argued that "[i]t is possible to have a cryogenic 4L cylinder without a vacuum jacket in which case the control valve setting, as per paragraph 173.304(b)(2), is one and one-fourth times the service pressure without subtracting the 15 psi." MTB agrees and grants the request for reconsideration by revising the table to add additional pressure control valve settings. The settings must be in conformance with paragraph 173.316(c)(2) for the named gases and § 173.34(d), which incorporates CGA Pamphlet S-1.1. Paragraph 5.9.3 of CGA Pamphlet S-1.1 specifies that a pressure control valve setting must be set 15 psi lower than  $1\frac{1}{4}$  times the marked service pressure on DOT-4L cylinders insulated by a vacuum.

Petitioners requested that the filling density entry for nitrogen at a pressure control valve setting at "295" be revised by removing "69" and adding "68". MTB agrees and grants the request for reconsideration.

**Section 173.318.** Two petitioners urged MTB to reconsider the requirement in paragraph (a)(3)(i) which prohibits the use of aluminum outer jackets on cargo tanks in oxygen service. The petitioners argued that MTB's position on this matter for cargo tanks is inconsistent with action taken by MTB in allowing aluminum jackets on oxygen cylinders, that the reasons used by MTB to justify allowing aluminum jackets on cylinders can be used also to support aluminum jackets on cargo tanks, and that the operating experience of aluminum jacketed non-specification cargo tanks in oxygen service has been excellent for over 50 years. Neither petitioner submitted any test data on cargo tanks demonstrating the survivability of aluminum in a fire environment which was a significant factor in MTB's decision to allow aluminum jackets on cylinders in oxygen service. MTB strongly believes that aluminum as a material of construction for the cargo tank jacket must not be used because it loses strength and melts at much lower temperatures than steel in a fire situation. Increase influx of heat and the attendant pressure buildup resulting from loss of jacket integrity would accelerate the rate of oxygen release and intensify the fire. A steel jacketed tank's relative survival time in fire engulfment is over two times that of an aluminum jacketed tank, as was discussed by MTB in the preamble of the final rule under the heading "Use of Aluminum" (48 FR 27674). The request for reconsideration is denied. However, as discussed above under § 173.316, MTB is revising paragraph (a)(4) to



allow the use of aluminum parts that have been anodized in accordance with ASTM Standard B 580 on cargo tanks in oxygen service.

MTB is relaxing the provision in paragraph (a)(5) to allow use of aluminum valves, pipes and fittings external to the jacket provided no lading is retained in these parts during transportation.

See preamble discussion in this document under the heading "Pressure Relief Device Systems" for changes made to the provisions on pressure relief valves in paragraph (b).

A petitioner requested that the words "pressure control valve" be deleted in subparagraph (b)(1)(iii) because a pressure control valve is not a pressure relief device. The petitioner's request for reconsideration is denied. MTB believes that when a cargo tank is filled to the pressure setting of the pressure control valve, the pressure control valve acts as a pressure relief device to relieve pressure. The paragraph is revised for clarity. Also, subparagraph (b)(1)(iii) is revised to reference requirements in flow capacities in subparagraph (b)(2)(i).

A petitioner requested that subparagraph (b)(5)(ii) be revised by deleting the word "actual" preceding the words "discharge rate" and that the words "of free air" be added immediately following "(SCFM)". The petitioner stated that the changes would permit the flow capacity to be marked using the standard flow rating method. MTB agrees and grants the petitioner's request for reconsideration.

A petitioner requested that paragraph (g) be revised to allow for the display of more than one one-way-travel-time (OWTT) marking on the tank when it is used to transport a cryogenic liquid at different pressure levels. MTB agrees and grants the request for reconsideration by revising the introductory text of paragraph (g) and paragraph (g)(3) to allow more than one OWTT marking on a cargo tank.

*Section 173.319.* AAR recommended that the word "flammable" be deleted in paragraph (a)(4) thereby making the requirements applicable to all cryogenic liquids transported by rail. AAR did not explain why it believed atmospheric gases and helium which are transported by rail at pressures less than 25.3 psig should be regulated to an extent greater than specified in § 173.320. MTB is denying the request for reconsideration because it is outside the scope of this rulemaking. Further consideration will be given to the matter upon receipt of a petition for rulemaking.

*Section 173.320.* A petitioner requested that MTB add a provision requiring Dewar flasks be equipped with

a suitable pressure relief device when used for helium or neon, refrigerated liquid at pressures below 25.3 psig. The petitioner maintained that the neck of the Dewar flask may freeze with solid air thereby allowing internal pressure buildup and rupture of the packaging. MTB is denying the request for reconsideration because it is outside the scope of this rulemaking. Further consideration will be given to the matter upon receipt of a petition for rulemaking. Further, shippers are reminded that it is their responsibility to determine the suitability of packagings in conformance with § 173.24.

Paragraph (b) is removed and redesignated paragraph (g) in § 176.11. MTB takes this opportunity to clarify in a new paragraph (b) that atmospheric gases and helium at pressure below 25.3 psig may be offered for carriage aboard an aircraft in conformance with § 171.11.

*Section 176.11.* Paragraph 173.320(b) which excepts atmospheric gases used in a refrigeration system from regulation by vessel is redesignation paragraph 176.11(g).

*Section 176.76.* A petitioner requested that paragraph (h)(2) be revised for clarification by adding the words "during transportation" immediately after the words "cryogenic liquid". The petitioner's request for reconsideration is denied because the introductory text to paragraph (h) makes it clear that the regulations apply to cryogenic liquids transported by vessel.

*Section 178.57-2.* Two petitioners requested that the maximum authorized service pressure on DOT 4L cylinders be continued at 500 psi in place of 360 psi as specified in the final rule. MTB agrees and grants the request for reconsideration by specifying a pressure at 500 psi to correspond with the additional filling densities authorized in the table in § 173.316(c)(2).

*Section 178.57-13.* A petitioner requested revision of this section to reference § 173.304(b)(2) for requirements on pressure control valves. The request for reconsideration is denied because § 173.304(b)(2) which contained requirements on pressure control valves on DOT-4L cylinders was removed under the final rule. The requirements previously contained in § 173.304(b)(2) are contained in CGA Pamphlet S-1-1, which is incorporated by reference in § 173.34(d). The last sentence in § 173.57-13 containing an incorrect reference to CGA Pamphlet S-1.1 for requirements on flow capacity of relief devices is removed.

*Section 178.57-20.* A petitioner requested revision of paragraph (a)(9) to allow the letters "AL" to be added immediately following the specification

markings in place of stamping the words, "ALUMINUM JACKET", on the jacket. The petitioner maintained that the two-letter marking appropriately identifies aluminum jacketed cylinders and is less expensive. The petitioner also contended that the material of construction of the jacket may not be known at the time of manufacture of the inner containment vessel (cylinder) and, therefore, marking the jacket material designation on the cylinder should not be required under paragraph (b). MTB agrees and grants the request for reconsideration by revising paragraphs (a)(9) and (b) accordingly.

*Section 178.57-22.* A petitioner requested a revisions of the information required in the inspector's report to clarify that the materials of construction of the inner container must conform to paragraph (a) of § 178.57-21. MTB agrees and grants the request for reconsideration.

*Section 178.337-11.* The National LP-Gas Association and another petitioner objected to the requirement in paragraph (c) permitting liquid or vapor discharge openings sized at 1 1/4 NPT to be equipped with an excess flow valve and a manually operated external valve. The petitioners maintain discharge openings sized at 1 1/4 inches are better protected by a remotely controlled internal shut-off valve. MTB revised the paragraph under the final rule due to claims of limited availability of internal valves sized at 1 1/4 inches. However, MTB has since confirmed that the 1 1/4 NPT internal valve is readily available. MTB is granting the petitioners' request for reconsideration by revising paragraph (c) to require that MC-331 cargo tanks must be equipped with internal valves on vapor or liquid discharge openings that are 1 1/4 NPT or larger in size after September 30, 1984.

*Section 178.338-1.* A petitioner requested that 22 gauge stainless steel in place of 20 gauge stainless steel be allowed for construction of non-evacuated jackets. The petitioner stated that 22 gauge steel offers the same protection as 20 gauge steel, is less costly and adds less weight. A review of exemptions reveals that many of the older exemptions authorized 22 gauge stainless steel jacket and MTB has no record of incidents caused by puncture or the influx of moisture. Therefore, MTB is granting the request for reconsideration by authorizing stainless steel jackets having a minimum thickness of 22 gauge.

A petitioner agreed to the requirement, in paragraph (f)(1), of a 30 psi critical collapsing pressure for evacuated jackets but took exception to

the requirement that jacket heads, shell and stiffening rings must be designed in accordance with the ASME Code. The petitioner maintained that the ASME does not provide a minimum collapsing pressure format and, therefore, references to the ASME Code should be deleted. MTB agrees and grants the request reconsideration by removing the references.

**Section 178.338-2.** A petitioner objected to the requirement that the jacket material of a MC-338 cargo tank be in conformance with the ASME Code as being too restrictive and that it eliminates presently used materials. The petitioner argued that ASME materials are intended primarily for pressure vessels subjected to internal pressure and that the availability of the sheet materials is extremely limited. The petitioner requested that paragraph (a) be revised to allow evacuated jackets to be constructed of ASME materials or materials meeting ASTM specifications A 242, A 441, A 514, A 572, A 588, A 606, A 607, A 633, A 715. MTB agrees with the petitioner's request for reconsideration and has made the change.

Two petitioners objected to the requirement, in paragraph (c), for impact testing of all tank material, except aluminum. One petitioner stated that impact testing is not necessary on materials when not required by the ASME Code, especially for stainless steels, such as Type 304 stainless steel. MTB does not agree. The ASME Code basically establishes standards for stationary pressure vessels and it does not consider the dynamic forces encountered in the transportation environment. In order to assure adequate strength and toughness of the materials throughout the range of service temperatures encountered, the petitioner's request for reconsideration is denied.

**Section 178.338-3.** A petitioner requested that paragraph (a) be revised to specify a minimum thickness of not less than 0.090-inch for the tank. The petitioner contends that 0.090-inch thick stainless steel permits a tank design pressure of 40 psi and is approximately 40 percent thicker than the ASME minimum thickness for stainless steel. The present requirement specifies a thickness of not less than  $\frac{1}{4}$  or 0.125-inch.

Several exemptions for vacuum insulated cryogenic cargo tanks authorize the use of a stainless steel inner tank of 0.110-inch thickness. These tanks with pressure control valves set below 25 psig are used for atmospheric gasses and, therefore, are not specification regulated except when

transported by vessel. There has been no adverse experience reported on the operation of these tanks.

There is a thickness threshold, particularly in large diameter tanks, below which distortions from welding and handling are likely to occur, and where reasonable shape rigidity is compromised. Even though reinforcing members are attached to provide rigidity in thin wall vessels, a point is reached where any attachment disturbs the ideal tank contours and provides a source for fatigue stresses. MTB has not been provided an analysis of these factors and, therefore, a minimum thickness threshold has not been convincingly established. MTB must assume, lacking an engineering and safety analysis, that the minimum thickness should be in the vicinity of 0.125-inch based on experience in this thickness. Considering the experience with 0.110-inch thickness, the fact that the inner tank is well protected and is not subjected to any corrosive atmosphere, and the fact that the strength must meet the dynamic force requirements of § 178.338-3(b), the petitioner's request for a minimum thickness of 0.090-inch is denied. However, MTB believes 0.110-inch minimum thickness for the inner tank of a vacuum insulated cargo tank is acceptable and is revising paragraph (a) accordingly.

**Section 178.338-4.** A petitioner requested revision of paragraphs (a) and (f) to remove the requirement that welds in evacuated jackets be in conformance with the ASME Code. MTB takes the position that the evacuated jacket is a load bearing member and should have acceptable welds. Therefore, MTB believes these welds should meet recognized standards in the ASME Code and MTB is denying the petitioner's request for reconsideration. However, MTB is revising paragraph (a) to remove a duplicative requirement that all undercutting in shell and head material must be repaired as specified in the ASME Code. Paragraph (f) is revised to remove the duplicative requirement to paragraph (a) that all joints must be in accordance with the ASME Code.

**Section 178.338-6.** A petitioner requested that paragraph (c) be revised to allow location of a welded manhole on the front head of an MC-338 cargo tank. The petitioner argued that no strength reduction would occur due to required reinforcement of openings in the tank. In light of the petitioner's comment and upon further consideration, MTB agrees and grants the petitioner's request for reconsideration. The rationale for the original requirement, developed from a detailed study of an accident involving

an MC-331 cargo tank, was that the design and location of the bolted manhole cover assembly in the front tank head allowed the manhole assembly to transmit accident impact loadings that caused failures in the tank head and shell. Most manholes used in MC-338 cargo tank are *welded* manholes fabricated nearly flush with the tank shell and located beneath the insulation jacket. Because such designs are unlikely to transmit and concentrate accident impact loads as occurred in the MC-331 cargo tank failure, MTB has decided that it is not necessary to restrict the location of such manholes. However, a manhole with a *bolted* closure when impacted is likely to transmit and concentrate accident loads into the tank. For this reason, MTB continues to prohibit manholes with *bolted* closures on the front head of MC-338 cargo tanks.

**Section 178.338-9.** A petitioner requested that MTB add a procedure for determining heat transfer rate and hold time requirements similar to that used for class DOT-113 tank cars. MTB agrees and grants the request for reconsideration by adding a new paragraph (c)(3) containing alternate procedures for determining the heat transfer rate and holding time of cargo tanks used in nonflammable cryogenic liquid service.

**Section 178.338-10.** A petitioner stated that the term "ultimate strength" is obsolete and should be replaced with the term "tensile strength". MTB agrees and grants the petitioner's request for reconsideration by revising paragraphs (b) and (c) accordingly. Similar changes are made in § 178.338-13.

**Section 178.338-12.** A petitioner stated that a shear section may be of questionable value outboard of valves located forward of the tandem, but has no useful purpose if the valves are within a rear cabinet forward of, and protected by, the bumper. MTB agrees that protection of valves provided by the bumper arrangements should be recognized and MTB is granting the request for reconsideration by revising the section, as suggested by the petitioner.

**Section 178.338-13.** In comments on paragraph (c), a petitioner stated that increased tensile strengths of materials at operating temperatures should be defined using values contained in the ASME Code. The petitioner also pointed out that the higher strength that materials have at low temperatures should not be recognized in applications where the material may not be at the low temperature. MTB agrees and grants the petitioner's request for

reconsideration by revising paragraph (c) accordingly.

**Section 178.338-14.** A petitioner requested revision of the last sentence in paragraph (a)(3) by replacing the parenthetical words "(percent outage)" with the words "(water capacity in pounds)". The petitioner stated that a setting expressed as a percentage does not reflect the actual outage for loading conditions and may be misleading. It is MTB's position that if a fix-length dip tube or trycock line gauging device is used to establish the maximum permitted liquid level at the loading pressure, it must be designed to assure conformance with the maximum permitted filling density prescribed in § 173.318. Therefore, after further consideration, MTB believes the requirement specifying the type of setting is unnecessary and it is removed. Accordingly, the petitioner's request for reconsideration is denied since it is unnecessary with the removal of paragraph (a)(3).

One petitioner objected to the placement of the pressure gauge on the tank jacket but provided no substantive data to justify removal of this requirement from paragraph (b). Therefore, the request for reconsideration is denied.

Also, a petitioner requested that the requirement on orifices in paragraph (c) be revised to limit applicability to tanks in flammable cryogenic liquid service, and to remove trycock lines from the restriction of openings not greater than 0.060 inch diameter. The petitioner maintained that larger openings are needed for trycock lines to ensure proper operation. MTB agrees with the petitioner in both cases and the requests for reconsideration are granted. The requirements are limited to tanks in flammable cryogenic service, and openings for trycock lines, if provided, may be no larger than ½-inch nominal pipe size.

**Section 178.338-16.** Paragraph (a) is revised to remove the requirement that the material of construction for the evacuated jacket must be in conformance with the ASME Code. This revision is consistent with the changes in § 178.388-2(a) to allow ASTM materials, as requested by a petitioner.

**Section 178.338-18.** A petitioner requested that the requirement in paragraph (a) be revised to permit ⅜-inch lettering in place of ⅝-inch lettering on nameplates. MTB believes ⅝-inch letters provide more legible markings at negligible cost. The petitioner's request for reconsideration is denied.

A petitioner stated that in paragraphs (b) (1) and (2) the abbreviation "veh." is

unnecessary and should be removed, in paragraph (b)(5) the "certificate date" is unnecessary as the "date of manufacture" is sufficient, in paragraph (b)(8) the correct abbreviation for weight is "wt." and not "wgt.", and in paragraph (b)(9) the word "cryogen" is not defined.

The petitioner's first two requests for reconsideration are denied. MTB believes the abbreviation "veh." is needed to clarify that the vehicle manufacturer is the final manufacturer of a portion of the vehicle, such as the tank or jacket. The "certificate date" is the date that the completed cargo tank is certified as conforming to all applicable requirements of the MC-338 specification as prescribed in § 178.338-19(a), and because it may differ from the manufacture date, it is retained. Relative to the petitioner's latter two requests for reconsideration, MTB agrees "wt." is the acceptable abbreviation for weight and revises paragraph (b)(8) accordingly. In paragraph (b)(9), the term "cryogen" is replaced with the term "cryogenic liquid".

**Section 179.102-1.** In response to petitioners' request for reconsideration, MTB is revising paragraph (a)(6) to remove the requirement that the tank anchor-to-tank shell fillet welds must be examined by radiography. A similar revision is made to §§ 179.102-(l) and 179.102-17(m).

**Sections 179.102-4 and 179.102-17.** MTB is revising paragraph 179.102-4(a) to incorporate an amendment adopted under Docket HM-175 (49 FR 3468, January 27, 1984 which requires that each specification 105 tank car built after August 31, 1981, be in conformance with specification 105J).

Three petitioners requested revisions to paragraphs 179.102-4(b) and 179.102-17(b) to clarify that stainless steel is not authorized for use as the material of construction for the tank. MTB agrees and grants the requests for reconsideration by revising the two paragraphs.

Several petitioners objected to the requirement, in paragraphs 179.102-4(g) and 179.102-17(g), permitting the installation on a tank car of a gaging device if it is a fixed length dip tube. The petitioners pointed out that most tank cars are equipped with a closed magnetic level gaging device and the use of these gaging devices should be continued as they are also authorized under DOT E-3992. MTB agrees and grants the petitioners' request for reconsideration by revising the paragraphs to permit gaging devices that are approved by the AAR Committee on Tank Cars. The term "gaging device" is used in place of the term "gauging

device" for consistency with the usage of this term in Part 179.

A petitioner requested that, in paragraphs 179.102-17 (d) and (i), the term "fluorinated hydrocarbon polymer" be removed and replaced with the more specific term "PTFE". MTB agrees and grants the petitioner's request for reconsideration. However, the term "polytetrafluoroethylene" is used in place of its abbreviation.

Another petitioner objected to the restriction in paragraph 179.102-4(i) that precludes use of steels containing certain elements in tank cars used in vinyl fluoride service. Of principal concern is the restriction against aluminum and copper because of their presence in the type of steel used in the construction of valves. The petitioners' request for reconsideration is denied. MTB will not change the restriction until compatibility data that specifically relates to vinyl fluoride are developed and reviewed since vinyl fluoride is known to be reactive with certain alloys.

Petitioners took exception to the requirement, in paragraphs 179.102-4(j) and 179.102-17(k), that the jacket of a tank car be stenciled with the words, "COLDEST LADING TEMPERATURE". The petitioners requested that the present wording of "MINIMUM OPERATING TEMPERATURE" continue to be authorized. One petitioner stated that "MINIMUM OPERATING TEMPERATURE" is more meaningful for the design and operating condition of the tank; whereas, "COLDEST LADING TEMPERATURE" may be misunderstood as being the temperature to the lading at any given time. MTB agrees and grants the petitioners' request for reconsideration by revising the paragraphs to permit continued use of the present marking.

Petitioners requested removal of the requirement, in paragraphs 179.102-4(1) and 179.102-17(m), that tank anchor-to-tank shell fillet welds must be examined by radiography. The petitioners maintained that radiography is not used to examine tank car fillet welds. MTB agrees and grants the petitioners' request for reconsideration by revising the paragraphs. A similar change is made in § 179.102-1(a)(6) for tanks in carbon dioxide, refrigerated liquid service.

**Section 179.400-4.** A petitioner requested revision of paragraph (a)(1) and the expression "q" in paragraph (a)(5) by adding "of water capacity" immediately following "Btu/day/lb." MTB agrees and grants the request for reconsideration.

**Section 179.400-8.** A petitioner indicated that in paragraph (c) the formula for minimum thickness should read " $t=PL/8SE(3+\sqrt{L/r})$ ". MTB disagrees with the petitioner. In the November 1 publication, MTB corrected the formula to read " $t=[PL(3+\sqrt{L/r})]/(8SE)$ ". In the corrected formula, only the term "(8SE)" is the denominator and the term "(L/r)" is the square root expression.

A petitioner requested revision of paragraph (d) to allow the minimum wall thickness of the outer jacket head to be 1/2 inch "before forming" in place of the required 1/2 inch "after forming". The requirement that jacket heads be at least 1/2 inch thick is intended to provide head puncture resistance and is equivalent to the requirement for head shields on certain other classes of tank cars which are used to transport flammable gases. Therefore, the petitioner's request for reconsideration is denied.

**Section 179.401-1.** Editorial changes have been made to certain entries in the table to § 179.401-1.

This document does not impose additional requirements and has the net result of reducing costs imposed under the final rule published in the Federal Register on June 16, 1983 (48 FR 27674). A regulatory evaluation and environmental assessment of the final rule is available for review in the docket. The regulatory evaluation was not modified to include the changes made under this document.

#### List of Subjects

#### 49 CFR Part 171

Hazardous materials transportation, Incorporation by reference.

#### 49 CFR Part 172

Hazardous materials transportation.

#### § 172.101 Hazardous materials table.

#### 49 CFR Part 173

Gases, Hazardous materials transportation, Packaging and containers, Reporting and recordkeeping requirements.

#### 49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Cargo vessels.

#### 49 CFR Part 178

Hazardous materials transportation, Packaging and containers.

#### 49 CFR Part 179

Hazardous materials transportation, Packaging and containers.

In consideration of the foregoing, Parts 171, 172, 173, 176, 178 and 179 of Title 49 Code of Federal Regulations are amended as follows:

#### PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. In § 171.7, paragraphs (d)(5) (xxiv) through (xxxiii) are added to read as follows:

#### § 171.7 Matter incorporated by reference.

\* \* \* \* \*

(d) \* \* \*

(5) \* \* \*

(xxiv) ASTM A 242-81 is titled "Standard Specification for High-Strength Low-Alloy Structural Steel," 1981 edition.

(xxv) ASTM A 441-81 is titled "Standard Specification for High-Strength Low-Alloy Structural Manganese Vanadium Steel," 1981 edition.

(xxvi) ASTM A 514-81 is titled "Standard Specification for High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding," 1981 edition.

(xxvii) ASTM A 572-82 is titled "Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Steels of Structural Quality," 1982 edition.

(xxviii) ASTM A 588-81 is titled "Standard Specification for High-Strength Low-Alloy Structural Steel with 50 ksi Minimum Yield Point to 4 in. Thick," 1981 edition.

(xxix) ASTM A 606-75 (Reapproved 1981) "Standard Specification for Steel Sheet and Strip, Hot-Rolled and Cold-Rolled, High Strength, Low-Alloy, with Improved Atmospheric Corrosion Resistance," 1981 edition.

(xxx) ASTM A 607-75 is titled "Standard Specification for Sheet and Strip, Hot-Rolled and Cold-Rolled, High-Strength, Low-Alloy Columbium and/or Vanadium," 1975 edition.

(xxxi) ASTM A 633-79a is titled "Standard Specification for Normalized High-Strength Low-Alloy Structural Steel," 1979 edition.

(xxxii) ASTM A 715-81 is titled "Standard Specification for Steel Sheet and Strip, Hot-Rolled, High-Strength, Low-Alloy, with improved Formability," 1981 edition.

(xxxiii) ASTM B 580-79 is titled "Standard Specification for Anodic Oxide Coatings on Aluminum," 1979 edition.

\* \* \* \* \*

#### PART 172—HAZARDOUS MATERIALS TABLES AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

2. In § 172.101, the Hazardous Materials Table is amended by revising entries, in alphabetical sequence, to read as follows:

+EAW	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Packaging		Maximum net quantity in each package		Water shipments		
					Excep-tions	Specifi-c require-ments	Passenger carrying aircraft or railcar	Cargo aircraft only	Cargo ves-sel	Passenger vessel	Other requirements
(1)	(2)	(3)	3(a)	(4)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	7(c)
	Argon, refrigerated liquid (cryogenic liquid).	Nonflammable gas.	UN 1951	Nonflammable gas.	173.320	173.316 173.318	169 pounds	1,169 pounds.	1,3	1,3	
	Ethylene, refrigerated liquid (cryogenic liquid).	Flammable gas	UN 1038	Flammable gas	None	173.318 173.319	Forbidden	Forbidden	1	5	Stow away from living quarters.

**PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS**

3. In § 173.23, paragraph (e) is revised to read as follows:

**§ 173.23 Previously authorized packaging.**

(e) After October 1, 1984, cylinders manufactured for use under exemptions DOT E-6668 or E-8404 may be continued in use, and must be marked "DOT-4L" in compliance with Specification 4L (§ 178.57 of this subchapter) on or before January 1, 1986. The "DOT-4L" marking must appear in proximity to other required specification markings.

4. In § 173.31, paragraphs (a)(8) and (c)(13)(v) are revised and paragraph (a)(10) is added to read as follows:

**§ 173.31 Qualification, maintenance, and use of tank cars.**

(a) \* \* \*

(8) For each tank car conforming to and used under an exemption issued before October 1, 1984, which authorized the transportation of a cryogenic liquid in a tank car, the owner or operator, if not the owner, shall remove the exemption number stenciled on the car and stamp the tank car with the appropriate Class DOT-113 Specification followed by the applicable exemption number, for example, "DOT-113D60W-E \* \* \* \*". (Asterisks to be replaced by the exemption number.) The owner or operator, if not the owner, of a tank car that is remarked in this manner shall retain on file a copy of the last exemption in effect during the period the tank car is in service. No modification of a tank car remarked under this paragraph is authorized unless made in conformance with an applicable requirement or provision of this subchapter.

(9) \* \* \*

(10) Class DOT 105A and 105S tank cars, constructed of ASTM A212B steel to ASTM A300 low temperature requirements, that were authorized under DOT E-3992 may continue in service but new construction is not authorized.

\* \* \* \* \*

(c) \* \* \*

(13) \* \* \*

(v) An alternate pressure relief valve must be retested at the same time interval prescribed for the required pressure relief valve. The start-to-discharge pressure and vapor tight pressure requirements for the alternate pressure relief valve must be as specified in § 179.401-1 of this subchapter. The alternate pressure relief valve values specified in § 179.401-1 of

this subchapter for the DOT-113C120W tank car apply to the DOT-113D120W tank car.

\* \* \* \* \*

5. In § 173.33, the introductory text of paragraph (b)(2) and paragraph (b)(3) are revised to read as follows:

**§ 173.33 Qualification, maintenance, and use of cargo tanks.**

(b) \* \* \*

(2) For each cargo tank conforming to and used under an exemption issued before October 1, 1984, which authorized the transportation of a cryogenic liquid in a cargo tank, the owner or operator, if not the owner, shall remove the exemption number stenciled on the cargo tank and stamp the specification plate (or a plate adjacent to the specification plate) "DOT MC-338" followed by the applicable exemption number, for example, "DOT MC-338-E \* \* \* \*". (Asterisks to be replaced by the exemption number.) The owner or operator, if not the owner, of a cargo tank that is remarked in this manner shall retain on file a copy of the last exemption in effect during the period the cargo tank is in service. No modification of a cargo tank remarked under this paragraph is authorized unless made in conformance with an applicable requirement or provision of this subchapter. No new construction of such cargo tanks may be initiated after September 30, 1984.

\* \* \* \* \*

(3) For each MC-331 cargo tank (§ 178.337 of this subchapter) conforming to and used under an exemption issued before October 1, 1984, which authorized the transportation of ethane, refrigerated liquid, ethane-propane mixture, refrigerated liquid, or hydrogen chloride, refrigerated liquid, the owner or operator, if not the owner, shall remove the exemption number stenciled on the cargo tank and stamp the exemption number on the specification plate immediately after the DOT Specification, for example, "DOT MC-331-E \* \* \* \*". (Asterisks to be replaced by the exemption number.) If there is not adequate room on the specification plate, the exemption number must be stamped on a plate placed adjacent to the specification plate. The owner or operator, if not the owner, of a cargo tank that is remarked in this manner shall retain on file a copy of the last exemption in effect during the period the cargo tank is in service.

\* \* \* \* \*

6. The heading to subpart G and paragraph (f) in § 173.300 are revised to read as follows:

\* \* \* \* \*

**Subpart G—Gases; Definition and Preparation**

\* \* \* \* \*

**§ 173.300 Definitions.**

\* \* \* \* \*

(f) *Cryogenic liquid*. A "cryogenic liquid" is a refrigerated liquefied gas having a boiling point colder than  $-130^{\circ}\text{F}$ . ( $-90^{\circ}\text{C}$ .) at one atmosphere, absolute. A material meeting this definition is subject to requirements of this subchapter without regard to whether it meets the definition of a compressed gas in paragraph (a) of this section. The material is partially described as " \* \* \* ", refrigerated liquid (*cryogenic liquid*) in § 172.101 of this subchapter.

\* \* \* \* \*

7. In § 173.314, paragraph (g)(2) is removed and paragraph (g)(3) is redesignated paragraph (g)(2), and the entry for "vinyl fluoride, inhibited" in the table in paragraph (c) is revised to read as follows:

**§ 173.314 Requirements for compressed gases in tank cars.**

\* \* \* \* \*

(c) \* \* \*

Kind of gas	Maximum permitted filling density, Note 1	Required tank car code § 173.31(a) (2) and (3)
(Revised) Vinyl fluoride, inhibited.	59.6 maximum to 53.6 minimum at maximum 105 psig, when offered for transportation.	DOT-105A600W, Notes 17 and 23.

\* \* \* \* \*

8. In § 173.316, paragraphs (a)(4) and (b), the introductory text of paragraph (c) and the table in paragraph (c)(2) are revised to read as follows:

**§ 173.316 Cryogenic liquids in cylinders.**

(a) \* \* \*

(4) A valve or fitting made of aluminum with internal rubbing or abrading aluminum parts that may come in contact with oxygen in the cryogenic liquid form may not be installed on any cylinder used to transport oxygen, cryogenic liquid unless the parts are anodized in accordance with ASTM Standard B 580.

\* \* \* \* \*

(b) *Pressure control systems*. Each cylinder containing a cryogenic liquid must have a pressure control system that conforms to § 173.34(d) and is

designed and installed so that it will prevent the cylinder from becoming liquid full.

(c) *Specification cylinder requirements and filling limits.* Specification DOT-4L cylinders (§ 178.57 of this subchapter) are authorized for the transportation of cryogenic liquids when carried in the vertical position as follows:

\* \* \* \*

2 \* \* \*

Pressure control valve setting (maximum start-to-discharge pressure, psig)	Maximum permitted filling density (percent by weight)				
	Argon	Nitrogen	Oxygen	Helium	Neon
45	133	76	103	125	103
75	130	74	105	125	104
105	127	72	103	125	100
170	122	70	100	125	92
285	115	68	96	125	77
360	113	65	93	125	
450	111	61	91	125	
540	107	58	88	125	
625	104	55	86	125	
Design service temperature (°F)	-320	-320	-452	-452	-411

9. In § 173.318, paragraph (b)(1)(viii) is removed and paragraphs (ix) and (x) are redesignated paragraphs (viii) and (ix), respectively; paragraph (g)(3) is removed; paragraphs (a)(3)(i), (a)(4), (a)(5), (b)(1)(i), (b)(1)(iii), (b)(2)(i), (b)(5)(ii), and the introductory text of paragraph (g) are revised to read as follows:

**§ 173.318 Cryogenic liquids in cargo tanks.**

(a) \* \* \*

(3) \* \* \*

(i) Is to be transported by vessel (see § 176.76(h)(1) of this subchapter); or

(ii) \* \* \*

(4) A valve or fitting made of aluminum with internal rubbing or abrading aluminum parts that may come in contact with oxygen in the cryogenic liquid form may not be installed on any cargo tank used to transport oxygen, cryogenic liquid unless the parts are anodized in accordance with ASTM Standard B 580.

(5) An aluminum valve, pipe or fitting, external to the jacket that retains lading during transportation may not be installed on any cargo tank used to transport oxygen, cryogenic liquid or any flammable cryogenic liquid.

(b) \* \* \*

(1) \* \* \*

(i) Each tank must be protected by a primary system of one or more pressure relief valves. Except for tanks in carbon monoxide, atmospheric gas (excluding oxygen) or helium service, each tank must be protected by a secondary system of one or more frangible discs or pressure relief valves arranged to discharge upward and unobstructed to the outside of the protective housing in such a manner as to prevent impingement of gas upon the jacket or any structural part of the vehicle. The primary and secondary systems of pressure relief valves must be the type that automatically open and close at predetermined pressures. For a tank in carbon monoxide service, the secondary system must be comprised of one or more pressure relief valves instead of frangible discs. A secondary system is not required on tank in atmospheric gas (excluding oxygen) or helium service.

(ii) \* \* \*

(iii) The rated relieving capacity for each pressure relief valve, pressure control valve when used as a pressure relief valve, and frangible disc must be as determined by the flow formulas contained in paragraph (b)(2)(i) of this section.

\* \* \* \*

(2) \* \* \*

(i) The primary system of pressure relief valves for a tank in atmospheric gas (except oxygen) and helium, cryogenic liquid service must have a flow capacity equal to or greater than that calculated by the applicable formula in 5.3.2 or 5.3.3 of CGA Pamphlet S-1.2. The primary system of pressure relief valves for a tank in oxygen, cryogenic liquid or flammable cryogenic liquid service, and the secondary system of relief devices (when required for any cryogenic liquid) must each have a flow capacity equal to or greater than that calculated by the applicable formula in 5.3.2 or 5.3.3 of CGA Pamphlet S-1.2.

\* \* \* \*

(5) \* \* \*

(ii) Each pressure relief valve must be plainly and permanently marked with the pressure, in psig, at which it is set-to-discharge, the discharge rate of the device in SCF per minute (SCFM) of free air, and the manufacturer's name or trade name and catalog number. The marked set-to-discharge pressure value must be visible with the valve in its installed position. The rated discharge capacity of the device must be determined at a pressure of 120 percent of the design pressure of the tank.

\* \* \* \*

(g) *One-way travel time; marking.* The jacket of a cargo tank used to transport

a flammable cryogenic liquid must be marked on its right side near the front, in letters and numbers at least two inches high, "One-Way Travel Time — hrs. — psig to — psig at — percent filling density," with the first blank filled in with a number indicating the one-way travel time (OWTT), in hours, of the cargo tank for the flammable cryogenic liquid to be transported, the second and third blanks with the pressures used to determine the marked rated holding time corresponding to the filling density used, and the fourth blank with the actual filling density. Multiple OWTT markings for different pressure levels are permitted.

\* \* \* \*

10. In § 173.320, paragraph (b) is revised to read as follows:

**§ 173.320 Cryogenic liquids; exceptions.**

\* \* \* \*

(b) For transportation aboard aircraft, see § 171.11 of this subchapter.

**PART 176—CARRIAGE BY VESSEL**

11. In § 176.11, a new paragraph (g) is added to read as follows:

**§ 176.11 Exceptions.**

\* \* \* \*

(g) The requirements of this subchapter do not apply to atmospheric gases used in a refrigeration system.

**PART 178—SHIPPING CONTAINER SPECIFICATIONS**

12. In § 178.57-2, paragraph (b) is revised to read as follows:

**§ 178.57-2 Type, size, service pressure, and design service temperature.**

\* \* \* \*

(b) The service pressure must be at least 40 and not more than 500 pounds per square inch. The service pressure limits the use of the cylinder and is shown by markings on the cylinder. For example, DOT-4L200 indicates the authorized pressure is 200 pounds per square inch.

\* \* \* \*

13. Section 178.57-13 is revised to read as follows:

**§ 178.57-13 Pressure relief devices and pressure control valves.**

Each cylinder must be equipped with pressure relief devices and pressure control valves as prescribed in §§ 173.34(d) and 173.316 of this subchapter.

14. In § 178.57-20, paragraph (a)(9) and (b) are revised to read as follows:



**§ 178.57-20 Marking.**

(a) \* \* \*

(9) If the jacket of the cylinder is constructed of aluminum, add "AL" after the service pressure marking. Example: DOT-4L150 AL.

(b) Except for serial number and jacket material designation, each marking prescribed in paragraph (a) of this section must be duplicated on each cylinder by any suitable means.

**§ 178.57-22 [Amended]**

15. In § 178.57-22, paragraph (a) is amended by changing the reference to "§ 178.57-21" to read "§ 178.57-21(a)".

16. In § 178.337-11, paragraph (c) is revised to read as follows:

**§ 178.337-11 Emergency discharge control.**

\* \* \* \* \*

(c) *Liquid or vapor discharge openings.* Each liquid or vapor discharge opening in a tank intended to be used for a flammable liquid; flammable compressed gas; hydrogen chloride, refrigerated liquid; or anhydrous ammonia, must be equipped with a remotely controlled internal shut-off valve. However, on any liquid or vapor discharge opening of less than 1¼ inches NPT, an excess flow valve together with a manually operated external valve may be used in place of a remotely controlled internal shut-off valve. The requirements of this paragraph do not apply to a liquid or vapor discharge opening 1¼ inch NPT equipped with an excess flow valve together with a manually operated external valve before October 1, 1984, or to an engine fuel line on a truck-mounted tank of not over ¾ inch NPT and equipped with a valve having an integral excess flow valve. Each remotely controlled internal valve must comply with the following requirements:

17. In § 178.338-1, the table in paragraph (e), and paragraph (f)(1) are revised to read as follows:

**§ 178.338-1 General requirements.**

\* \* \* \* \*

(e) \* \* \*

Type metal	Jacket evacuated		Jacket not evacuated	
	Gauge	Inches	Gauge	Inches
Stainless steel.....	18	0.0428	22	0.0269
Low carbon mild steel.....	12	0.0946	14	0.0677
Aluminum.....		0.125		0.1000

(f) \* \* \*

(1) The jacket must be designed to sustain a minimum critical collapsing pressure of 30 psi.

\* \* \* \* \*

18. In § 178.338-2, paragraph (a) is revised to read as follows:

**§ 178.338-2 Material.**

(a) All material used in the construction of a tank and its appurtenances that may come in contact with the lading must be compatible with the lading to be transported. All material used for tank pressure parts must conform to the requirements of the ASME Code. All material used for evacuated jacket pressure parts must conform to the chemistry and steelmaking practices of one of the material specifications of Section II of the ASME Code or the following ASTM Specifications: A 242, A 441, A 514, A 572, A 588, A 606, A 607, A 633, A 715.

\* \* \* \* \*

19. In § 178.338-3, paragraph (a) is revised to read as follows:

**§ 178.338-3 Metal thickness.**

(a) The metal thickness of the tank must be as prescribed in the ASME Code and paragraph (b) of this section. Metal less than 0.187 inch thick may not be used for the shell or heads of a tank unless the tank is enclosed in an evacuated or load-bearing jacket. Metal less than 0.110 inch thick may not be used for the shell or heads of the tank under any circumstances.

\* \* \* \* \*

20. In § 178.338-4, paragraphs (a) and (f) are revised to read as follows:

**§ 178.338-4 Joints.**

(a) All joints in the tank, and in the jacket if evacuated, must be as prescribed in the ASME Code, except that a butt weld with one plate edge offset is not authorized.

\* \* \* \* \*

(f) All tank nozzle-to-shell and nozzle-to-head welds must be full penetration welds.

21. In § 178.338-6, paragraph (c) is revised to read as follows:

**§ 178.338-6 Manholes.**

\* \* \* \* \*

(c) A manhole with a bolted closure may not be located on the front head of the tank.

22. In § 178.338-9, a new paragraph (c)(3) is added to read as follows:

**§ 178.338-9 Holding time.**

\* \* \* \* \*

(c) \* \* \*

(3) For a cargo tank used in nonflammable cryogenic liquid service, in place of the holding time tests prescribed in paragraph (b) of this section, the marked rated holding time (MRHT) may be determined as follows:

(i) While the cargo tank is stationary, the heat transfer rate must be determined by measuring the normal evaporation rate (NER) of the test cryogenic liquid (preferably the lading, where feasible) maintained at approximately one atmosphere. The calculated heat transfer rate must be determined from:

$$q = [n(\Delta h)(85 = t_1)] / [t_1 t_2]$$

Where:

q = calculated heat transfer rate to cargo tank with lading, Btu/hr.

n = normal evaporation rate (NER), which is the rate of evaporation, determined by the test of a test cryogenic liquid in a cargo tank maintained at a pressure of approximately one atmosphere, absolute, lb/hr.

Δh = latent heat of vaporization of test fluid at test pressure, Btu/lb.

t<sub>1</sub> = average temperature of outer shell during test, °F.

t<sub>2</sub> = equilibrium temperature of lading at maximum loading pressure, °F.

t<sub>3</sub> = equilibrium temperature of test fluid at one atmosphere, °F.

(ii) The rated holding time (RHT) must be calculated as follows:

$$RHT = [(U_2 - U_1) W] / q$$

Where:

RHT = rated holding time, in hours

U<sub>1</sub> and U<sub>2</sub> = internal energy for the combined liquid and vapor lading at the pressure offered for transportation, and the set pressure of the applicable pressure control valve or pressure relief valve, respectively, Btu/lb.

W = total weight of the combined liquid and vapor lading in the cargo tank, pounds.

q = calculated heat transfer rate to cargo tank with lading, Btu/hr.

(iii) The MRHT (see § 178.338-18(b)(9) of this subchapter) may not exceed the RHT.

**§ 178.338-10 [Amended]**

23. In § 178.338-10, paragraphs (b) and (c) are amended by revising the words "ultimate strength" each time they appear to read "tensile strength."

24. In § 178.338-12 is revised to read:

**§ 178.338-12 Shear section.**

Unless the valve is located in a rear cabinet forward of and protected by the bumper (see § 178.338-10(c)), the design and installation of each valve, damage to which could result in loss of liquid or vapor, must incorporate a shear section or breakage groove adjacent to, and outboard of, the valve. The shear section or breakage groove must yield or break under strain without damage to the valve that would allow the loss of liquid



or vapor. The protection specified in § 178.338-10 is not a substitute for a shear section or breakage groove.

25. In § 178.338-13, the fourth sentence in paragraph (b) is amended by revising "ultimate strength" to read "tensile strength"; and paragraph (c) is revised to read as follows:

**§ 178.338-13 Supports and anchoring.**

(c) When a loaded tank is supported within the vacuum jacket by structural members, the design calculations for the tank and its structural members must be based on a safety factor of four and the tensile strength of the material at ambient temperature. The enhanced tensile strength of the material at actual operating temperature may be substituted for the tensile strength at ambient temperature to the extent recognized in the ASME Code for static loadings. Static loadings must take into consideration the weight of the tank and the structural members when the tank is filled to the design weight of lading (see Appendix G of the ASME Code). When load rings in the jacket are used for supporting the tank, they must be designed to carry the fully loaded tank at the specified static loadings, plus external pressure. Minimum static loadings must be as follows:

- (1) Vertically downward of 2;
- (2) Vertically upward of 1½;
- (3) Longitudinally of 1½; and,
- (4) Laterally of 1½.

26. In § 178.338-14, paragraph (a)(3) is amended by removing the last sentence which reads "The setting (percent outage) must be indicated in a visible location at or adjacent to the valve."; paragraph (c) is revised to read as follows:

**§ 178.338-14 Gauging devices.**

(c) *Orifices.* All openings for dip tube gauging devices and pressure gauges in flammable cryogenic liquid service must be restricted at or inside the jacket by orifices no larger than 0.060-inch diameter. Trycock lines, if provided, may not be greater than ½-inch nominal pipe size.

27. In § 178.338-16, paragraph (a) is revised to read as follows:

**§ 178.338-16 Inspection and testing.**

(a) *General.* The material of construction of a cargo tank and its appurtenances must be inspected for conformance to the ASME Code. The tank must be subjected to either a hydrostatic or pneumatic test. The test pressure must be one and one-half times the sum of the design pressure, plus static head of lading, plus 14.7 psi if

subjected to external vacuum, except that for tanks constructed in accordance with Part UHT of the ASME Code the test pressure must be twice the design pressure.

28. In § 178.338-18, paragraphs (b)(8) and (b)(9) are revised to read as follows:

**§ 178.338-18 Marking.**

- (b) \* \* \*
- (8) Maximum weight of lading for which the cargo tank is designed, in pounds (Max. Net Wt. — lbs.);
- (9) Marked rated holding time for at least one cryogenic liquid, in hours, and the name of that cryogenic liquid (MRHT — hrs, name of cryogenic liquid). MRHT markings for additional cryogenic liquids may be displayed on or adjacent to the specification plate.

**PART 179—SPECIFICATIONS FOR TANK CARS**

29. In § 179.102-1, paragraph (a)(8) is revised to read as follows:

**§ 179.102-1 Carbon dioxide, refrigerated liquid.**

- (a) \* \* \*
- (8) Tank anchor-to-tank shell fillet welds must be examined by non-destructive testing techniques and must meet the acceptance standards of AAR Specifications for Tank Cars, Appendix W, paragraph W11.06.

30. In § 179.102-4, the introductory text of paragraph (b) and, paragraphs (a), (b)(2)(ii), (g), (i) and (l) are revised to read as follows:

**§ 179.102-4 Vinyl fluoride, inhibited.**

(a) The tank must conform with specification DOT-105A600W and must be designed for loading at minus 50°F. or colder. After December 31, 1986, each tank built before September 1, 1981, having a water capacity (shell full volume, including manways) exceeding 18,500 U.S. gallons and used for the transportation of vinyl fluoride, inhibited must conform to class DOT-105J.

(b) All plates for the tank must be fabricated of material listed in paragraph (b)(2) of this section, and appurtenances must be fabricated of material listed in paragraph (b)(1) or (b)(2) of this section.

- (1) \* \* \*
- (2) \* \* \*
- (i) \* \* \*
- (ii) AAR Specification TC128 material must meet the Charpy V-notch test requirements, in longitudinal direction of rolling, of 15 ft.-lb. minimum average

for 3 specimens, with a 10 ft.-lb. minimum for any one specimen, at minus 50°F. or colder, in accordance with ASTM Specification A 370.

(g) Only an approved gaging device may be installed.

(j) The jacket must be stenciled, adjacent to the water capacity stencil, "MINIMUM OPERATING TEMPERATURE — °F."

(1) Tank anchor-to-tank shell fillet welds must be examined by non-destructive testing technique and must meet the acceptance standards of AAR Specifications for Tank Cars, Appendix W, paragraph W11.06.

31. In § 179.102-17, the introductory text to paragraph (b), and paragraphs (b)(2)(ii), (d), (g), (i), (k) and (m) are revised to read as follows:

**§ 179.102-17 Hydrogen chloride, refrigerated liquid.**

(b) All plates for the tank must be fabricated of material listed in paragraph (b)(2) of this section, and appurtenances must be fabricated of material listed in paragraph (b)(1) or (b)(2) of this section.

- (1) \* \* \*
- (2) \* \* \*
- (i) \* \* \*
- (ii) AAR Specification TC128 material must meet the Charpy V-notch test requirements, in longitudinal direction of rolling of 15 ft.-lb. minimum average for 3 specimens, with a 10 ft.-lb. minimum for any one specimen, at minus 50°F. or colder, in accordance with ASTM Specification A 370.

(d) Safety relief valves must be trimmed with monel or other approved material and equipped with a frangible disc of silver, polytetrafluoroethylene coated monel, or tantalum. Each safety relief device shall have the space between the frangible disc and the relief valve vented with a suitable auxiliary valve. The discharge from each safety relief valve must be directed outside the protective housing.

(g) Only an approved gaging device may be installed.

(i) All gaskets must be made of, or coated with, polytetrafluoroethylene or other approved material.

(k) The jacket must be stenciled, adjacent to the water capacity stencil,

"MINIMUM OPERATING  
TEMPERATURE—°F."

(m) Tank anchor-to-tank shell fillet welds must be examined by non-destructive testing techniques and must meet the acceptance standards of AAR Specifications for Tank Cars, Appendix W, paragraph W11.06.

32. In § 179.400-4, paragraphs (a)(1), (d) and the expression "q" in paragraph (a)(5) are revised to read as follows:

**§ 179.400-4 Insulation system and performance standard.**

(a) \* \* \*

(1) *Standard Heat Transfer Rate* (SHTR), expressed in Btu/day/lb of water capacity, means the rate of heat transfer used for determining the satisfactory performance of the insulation system of a cryogenic tank car tank in cryogenic liquid service (see § 179.401-1 Table).

\* \* \*

(5) \* \* \*

q=CHTR, in Btu/day/lb., of water capacity;

\* \* \*

(d) Insulating materials must be approved.

\* \* \*

33. In § 179.400-8(c), the formula is revised to read " $t = [PL 3 + \sqrt{(L/r)}] / (8SE)$ ".

34. In the table in § 179.401-1, the last four entries are revised to read as follows:

**§ 179.401-1 Individual specification requirements.**

DOT specification	113A60W	113C120W
Alternate pressure relief valve flow rating pressure, max. psi.	100.	
Pressure control valve Start-to-vent, max. psi (see § 179.400-20(c)(4)).	17	Not required.
Relief device discharge restrictions.	§ 179.400-20.....	179.400-20.

DOT specification	113A60W	113C120W
Transfer line insulation	§ 179.400-17.....	Not required.

(49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53 and App. A to Part 1)

Note.—The Materials Transportation Bureau has determined that this document 1) will not result in a "major rule" under the terms of Executive Order 12291, 2) is not a significant regulation under DOT's regulatory policy and procedures (44 FR 11034), and 3) does not require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 et seq.). The regulatory evaluation and environmental assessment is available for review in the docket.

Issued in Washington, D.C., on May 29, 1984.

**L. D. Santman,**

*Director, Materials Transportation Bureau.*

[FR Doc. 84-15035 Filed 6-11-84; 8:45 am]

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Tuesday  
June 12, 1984

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**Part IV**

**Environmental  
Protection Agency**

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**40 CFR Part 85**

**Motor Vehicles; Emissions Control  
System Performance Warranty Short  
Tests; Additional Short Tests and Other  
Amendments; Final Rule**

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 85****[AMS FRL-2560-7]****Motor Vehicles; Emissions Control System Performance Warranty Short Tests; Additional Short Tests and Other Amendments****AGENCY:** Environmental Protection Agency.**ACTION:** Final rulemaking.

**SUMMARY:** This action amends the Emissions Control System Performance Warranty Short Tests established on May 22, 1980 (45 FR 34802). EPA is establishing a new "Engine Restart Idle Test" requested by Ford Motor Company, for warranty use on 1981 and later Ford and non-Ford vehicles. A second new test, which is termed the "2500 rpm/Idle Test," a variant of an existing test, is also established and approved for warranty purposes. A third new test is simply a combination of the first two, primarily for use with Ford vehicles and optionally for other makes. This action also makes several other minor revisions in the short test regulations.

**DATES:** This final rule is effective on July 12, 1984.

**ADDRESSES:** Copies of material relevant to this rulemaking are contained in Public Docket No. A-81-40 at the U.S. Environmental Protection Agency, West Tower Lobby, Gallery One, 401 M Street SW., Washington, D.C. 20460. The docket may be inspected between 8 a.m. and 4 p.m. on weekdays. As provided in 40 CFR Part 2, a reasonable fee may be charged for photocopying.

**FOR FURTHER INFORMATION CONTACT:**

Jane Armstrong, Emission Control Technology Division, Office of Mobile Sources, Environmental Protection Agency, 2565 Plymouth Rd., Ann Arbor, Michigan 48105, Telephone (313) 668-4471.

**SUPPLEMENTARY INFORMATION:****I. Background**

Section 207(b) of the Clean Air Act, 42 U.S.C. 7541(b), requires EPA to establish test procedures for use in determining compliance of in-use vehicles with emissions standards ("short tests"), if the procedures are available, are consistent with good engineering practice and are reasonably capable of being correlated with the emissions certification test (or Federal Test Procedure (FTP)).

EPA is also required to issue regulations requiring manufacturers to

warrant their vehicles' emission control systems at such time as the facilities and equipment needed to perform the necessary tests have become available. On May 22, 1980, EPA made the necessary findings and established three short test procedures (45 FR 34829). On the same date, EPA also issued emissions performance warranty regulations (45 FR 34829). The performance warranty covers 1981 or later light-duty vehicle or light-duty truck owners who may be subject to any sanction as a result of failing an approved short test throughout a vehicle's statutory useful life, if the vehicle was maintained in accordance with the manufacturer's instructions.

The three short tests approved in 1980 are termed the Idle Test, the Two Speed Idle Test and the Loaded Test. These tests are intended for use in State or local vehicle inspection and maintenance (I/M) programs.

On March 21, 1983, EPA proposed (48 FR 11870) that two additional short tests be added, responding to a petition from Ford Motor Company which claimed that certain 1981 and later Ford vehicles may incorrectly fail the existing Idle Test and Two Speed Idle Test if the engine idles more than 60-120 seconds prior to measurement of emissions. This results from actuation of a dump valve in the air pump control system which vents the air pump discharge air to the atmosphere for safety reasons after extended engine idling. To avoid this, the proposed new tests would require that the engine be turned off and restarted before measuring the emissions, since this will re-set the dump valve timer. These two new tests—the Engine Restart Idle Test and the Engine Restart 2500 rpm/Idle Test—are being promulgated essentially as proposed.

A third new short test was proposed because of additional concerns by EPA technical staff regarding the utility of the present Two Speed Idle Test. This test, termed the 2500 rpm/Idle Test, takes less time to perform and presents fewer opportunities for error than the Two Speed Idle Test and is being promulgated essentially as proposed.

In addition, in response to a petition from the State of New York, EPA proposed a detailed process for States to use when requesting permission to use equipment quality control procedures differing from the strict requirements of the regulations. The proposal also specified a numerical total error limit of plus-or-minus 5% for the sum of the leaks plus electronic errors for requiring adjustment of analytical instruments used in I/M programs, and proposed to approve the use of devices to

simultaneously sample both exits of dual exhaust systems.

Comments on the proposal were received from 14 organizations, including four car manufacturers, the American Automobile Association (AAA), a manufacturer of emissions measurement instruments, and eight State agencies involved with I/M testing.

**II. Discussion of Issues and Comments**

The issues and comments will be summarized by category. A more detailed discussion is contained in the "Summary and Analysis of Comments to the March 21, 1983 NPRM, which is available for inspection and copying in Public Docket A-81-40, Central Docket Section, West Tower Lobby, Gallery One, 401 M Street SW., Washington, D.C. 20460.

**A. Consistency with Statutory Requirements**

As discussed in detail in the NPRM and in the Technical Appendix to the NPRM, the new test procedures established by this rulemaking action satisfy the provisions of section 207(b) of the Clean Air Act, 42 U.S.C. 7541(b). The new test methods and procedures are available, are in accordance with good engineering practices, and are reasonably capable of being correlated with the test used for certification. They are, in fact, minor variants of the present Idle and Two Speed Idle tests and have about the same errors of commission and omission. Moreover, they are designed to capitalize on the laboratory facilities, trained personnel and instrumentation already available for conducting the present tests. Similarly, the amendments to the existing short test procedures are so minor that they do not affect the Agency's prior finding that those procedures meet the criteria of Section 207(b).

**B. Environmental Impact**

Only two commenters considered the environmental impact of the proposals. Ford Motor Company conducted a short investigation to show that actuation of air dumping system after extended engine idling has only insignificant effects on ambient air quality. On the other hand, the State of Alaska commented that adoption of the proposed tests might result in Ford vehicles experiencing certain types of malfunctions being incorrectly passed during I/M testing at very low ambient temperatures, which would result in increased emissions of carbon monoxide in cities such as Anchorage and Fairbanks. However, an examination by

EPA of the test data provided by the State authorities does not support the conclusion that such malfunctions would be missed by the proposed new tests with any greater frequency than they would be missed by the currently approved short test procedures. This is discussed in somewhat more detail in the "Summary and Analysis of Comments". Accordingly, EPA perceives no convincing reason why the new tests should not be adopted on environmental grounds.

#### *C. Need for New Tests*

The State of Colorado commented that the special test procedures designed to prevent errors caused by air pump dumping are unnecessary at high altitude locations because the engine manifold vacuum levels are too low to actuate the air pump dump controls. Supplemental comments by Ford Motor Company agreed with Colorado. An EPA analysis of the available test data using the proposed restart tests indicated that Colorado's comment was valid. This analysis, "Comparison of RESTART and Other Short Test Failure Rates," is also available for inspection and copying in Public Docket A-81-40. For these reasons, the new engine restart procedures will not be required for warranty purposes at altitudes above 4000 feet.

Three commenters, American Motors, Renault, and the American Automobile Association (AAA), all recommended adoption of the proposed restart tests. AAA also recommended that the tests be applicable to pre-1981 vehicles as well as later models and that the use of the restart tests be combined with EPA approval of biennial, as opposed to annual, I/M inspections. Although EPA's emissions warranty regulations are not applicable to pre-1981 vehicles, States will have the latitude to use these new tests for such older vehicles under their I/M programs if they choose. Consideration of the merits of biennial I/M inspections is beyond the scope of this rulemaking.

Two commenters, General Motors and the State of Oregon, recommended against the use of the proposed restart tests with any vehicles other than Ford vehicles, the latter arguing that some vehicles might be improperly passed under certain malfunction conditions. The EPA analysis mentioned above, "Comparison of RESTART and other Short Test Failure Rates," considered emissions data using the proposed tests on a wide variety of vehicle makes and models, looking for evidence of both improper failures of vehicles which should pass an I/M test, as well as for improper passes, as suggested by

Oregon. Improper failures were observed only for certain GM models, and these failures are not related to the restart aspects of the new tests (i.e., they would have occurred even under the existing tests). General Motors has the option, under 40 CFR 85.2208, of requesting special treatment for these specific models. While the analysis did show some increases in the number of vehicles incorrectly passed by the proposed restart tests versus the simple idle test, this effect is limited to Ford vehicles and for these vehicles the proposed restart tests are similar in effectiveness to other variations of the idle test currently approved for use in I/M programs. Therefore, the projected air quality impact is insignificant. Furthermore, States have the discretion to limit use of the new restart tests to Ford vehicles if they choose.

Therefore, as proposed, the new restart tests will be potentially applicable to all 1981 and later vehicles undergoing I/M testing. However, as proposed, only 1981 and later model Ford vehicles must be tested by the new restart tests, or by the Loaded test, to be eligible for coverage under the emissions performance warranty.

No substantive comments were received on the 2500 rpm/Idle Test. Accordingly, that test will also be applicable to all 1981 and later model vehicles. One commenter (AAA) was concerned that by adopting the 2500 rpm/Idle Test, States would lose the authority to use the Two Speed Idle Test for non-Ford vehicles. However, as discussed above, States may use any of the six short tests for non-Ford vehicles.

#### *D. Test Procedure Details*

Four States commented on detailed aspects of the proposed new test procedures.

The State of Oregon already uses a "key-off and restart" procedure selectively for all 1981 and later Fords which fail the standard Two-Speed Idle test. The State asked for reassurance that adoption of the proposed new EPA procedures would not invalidate this practice. EPA agrees that the Oregon procedures are compatible with the regulations proposed.

The State of Arizona presently employs a variant of the EPA Loaded Test in which vehicles that fail the basic Idle Test are subjected to simulated 30 mph loaded conditions for a short period of time, followed by a second Idle Test. Failure must occur both before and after the loaded mode in order for a vehicle to be rejected. Although the chassis dynamometer loading used by Arizona does not precisely match the speed/load conditions specified for the loaded test,

Ford Motor Company reviewers have stated to EPA that the procedure employed by Arizona achieves the intent of the proposed restart tests and can be considered equivalent for warranty purposes for Fords. EPA agrees with Ford.

The State of California commented simply that it has finalized the test equipment specifications for its upcoming I/M program with the assumption that the proposed tests would be finalized essentially as proposed. The comments discouraged any additional test procedure changes by EPA which would be costly once the equipment has been manufactured. EPA reviewers believe that none of the minor changes made herein will be incompatible with the California specifications.

The State of Washington commented that the use of a tachometer should not be required as part of the restart tests and that the preconditioning time should be shortened to 15 seconds. Neither of these two changes is desirable as a general practice, since the absence of a tachometer would make it difficult to achieve 2500 rpm consistently, and 15 seconds of preconditioning may not be long enough to prevent reactivation of Ford air pump dump systems prior to completion of the idle sampling period. Therefore, Washington's suggestion has not been incorporated into the final rule. However, since the Washington I/M program is centralized and tightly controlled, using highly trained inspectors, the practices recommended by Washington would produce acceptable test results within its program, although these practices would not be acceptable for all existing and future state I/M programs. Of course, if vehicle owners in the Washington I/M program are reported to have difficulty securing warranty repairs because of test procedure differences, EPA will work to resolve the problems with the vehicle manufacturers.

Washington also recommended inserting the emissions sampling probe after, instead of before engine restart in the Restart Idle Test and EPA agrees that is a better procedure. The final rule is revised accordingly.

#### *E. Alternative Quality Control Procedures*

The QC procedures specified in Section 85.2217 of the short test regulations were determined by the Administrator in 1980 to meet the statutory criteria of being available, in accordance with good engineering practice, and resulting in the short tests being reasonably capable of being

correlated with the FTP (see 45 FR 34802). This determination was based on general practice in the then operating I/M programs and the general level of accuracy in analysis instrumentation being manufactured at the time. EPA wished to accommodate I/M programs' use of other QC procedures where improved instrumentation would provide equal effectiveness in limiting errors of commission or false failures due to instrument inaccuracy. Therefore, the proposal contained a provision for approval by EPA of alternative quality control procedures where a case-by-case evaluation would indicate that certain numerical criteria regarding instrumentation accuracy were satisfied. Two States commented on this provision, New York and Washington.

New York stated that the proposed approval criteria were excessively stringent even for I/M programs whose instruments are calibrated weekly and recommended that EPA join with I/M States in a program to develop more appropriate criteria based on the performance of emissions instrumentation in all existing programs. As an alternative, the State recommended that EPA announce only a very generalized application process for States wishing to use alternative quality control procedures. EPA reviewers agree with the latter approach. Detailed procedures for applying for such approval can be developed better after more States have obtained experience in operating I/M programs. Accordingly, the application procedures contained in this rule are more general than those proposed. EPA will process applications for approval of alternative quality control procedures on a case-by-case basis.

Washington asked that States already operating complying I/M programs be given the flexibility to adopt quality control programs different from those previously approved. That flexibility will be permitted under the procedure discussed above, provided the State provides relevant data substantiating the claim that such alternative procedures are equivalent to the procedures established by this rule, and therefore meet the criteria of Section 207(b) of the Clean Air Act.

Requestors must supply supporting information which substantiates that the proposed alternative procedures are as effective as the current procedures. As stated in the NPRM (48 FR 11870), following a preliminary determination by the Administrator that an alternative procedure is equivalent, a Federal Register notice will be published announcing the request and explaining

EPA's preliminary determination. Technical data and other information relevant to the proposal will be made available for comment in the public docket. Interested parties will be given 30 days to submit comments, and if the comments received or other data do not establish a basis for EPA to conclude that the preliminary determination was in error, a final Federal Register notice will be published granting the State permission to use the alternative procedure.

A related change, consistent with the foregoing, was made to allow States, as well as manufacturers, to request alternative test procedures, although in this instance a complete rulemaking process will be necessary. Although this provision was not contained in the NPRM, it merely codifies the right that any person, including any State, has to petition the Agency to amend the short test regulations when appropriate. Accordingly, EPA finds that notice and opportunity to comment on this provision are unnecessary.

The AAA agreed that a system should be set up to grant approval to State quality control procedures, but also stated that the demonstrated need for better quality control is another argument for biennial I/M inspections. The latter comment goes beyond the scope of this rulemaking and will not be evaluated herein.

#### *F. Limits for Instrument Adjustments*

The proposal specified numerical limits beyond which emissions instruments would require adjustment, so as to improve the in-service accuracy of the instruments and help to avoid disputes over warranty claims which might have been based on emissions measurements with instruments which needed readjustment. Comments were received from Bear Automotive Service Company and from the states of Colorado, Washington, New York, Oregon and New Mexico, all but the last considering the proposed limits nonachievable. It appears that some commenters may have misunderstood the limited intent of this proposal and it has been explained and clarified in this rulemaking accordingly. In addition, the commenters stated that it was unrealistic to expect that instruments in actual service could meet the numerical limits proposed by EPA, given the limitations on the inherent accuracy of the instruments and changes in ambient conditions that can affect analyzer response. EPA technical reviewers do not dispute the hypothesis that some analyzers will deviate from the calibration gas by more than the proposed numerical limit during weekly

checks, and will require readjustment. However, this is not a relevant concern. The relevant issue is whether it is (1) feasible to readjust analyzers as often as they fail in weekly checks using the proposed limits, (2) feasible to readjust them to within the proposed limits and (3) important to do so in so far as analyzer accuracy is concerned. EPA believes the answer to all three issues is affirmative, and that the proposed limits (with the clarifications contained in the final regulations) are available and consistent with good engineering practice, as required by section 207(b) of the Clean Air Act.

In addition, the final rule clarifies what has always been an intent of the regulations, mainly that noncomplying calibration gases may not be used to adjust the analyzer in between weekly adjustments with complying gases. Finally, the regulations are also revised to make it explicit that certain checks of the analyzer must also be made after certain types of repair.

#### *G. Simultaneous Sampling of Dual Exhausts*

In order to save time during I/M testing of vehicles equipped with dual exhaust systems, which must be sampled individually and averaged in the presently approved tests, it was proposed to allow the use of systems for simultaneous sampling from both tailpipes of such vehicles to obtain an average sample for analysis. This proposal would apply to all currently approved tests as well as those established by this rulemaking action. American Motors Corporation, the only commenter on this item, recommended adoption, with the addition of measures to insure that the sample taken is a true average. Accordingly, this proposal will be finalized with the addition of a requirement for balanced flow through the two legs of a dual sampling probe.

#### *H. Effective Model Year*

No comments were received on the proposal that the new amendments be effective for 1981 and later model years, which is finalized as proposed. However the requirement for identifying the use of alternative standards and test procedures on the emission control information label for particular vehicles or engines is inapplicable for 1981 through 1984 Ford vehicles because it is now too late for such a requirement to be met.

### **III. Regulatory Analysis**

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the

requirements for a regulatory analysis. This rulemaking is not major because it involves no negative cost impacts and has no significant adverse effect on competition, productivity, investment, employment or innovation. For these reasons, EPA has not prepared a formal Regulatory Impact Analysis.

This rulemaking action has been sent to the Office of Management and Budget (OMB) for review pursuant to Executive Order 12291. Any comments from OMB and any EPA response thereto are in the public docket for this rulemaking.

#### IV. Impacts on Reporting Requirements

This rule does not contain any information collection requirements subject to OMB review under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*

#### V. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, EPA is required to determine when a regulation will have a significant effect on a substantial number of small entities so as to require a regulatory flexibility analysis. Because the new tests are no more stringent than the existing Emission Performance Warranty Short Tests, there should be no additional effect on small entities manufacturing vehicles for sale in the United States beyond that present in the existing warranty program. The same comment applies to small entities which manufacture aftermarket parts for vehicles. Accordingly, I certify that this regulation will not have a significant impact on a substantial number of small entities. Therefore, no Regulatory Flexibility Analysis has been prepared.

#### List of Subjects in 40 CFR Part 85

Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research warranties.

Date: May 29, 1984  
William D. Ruckelshaus,  
Administrator.

### PART 85—CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES AND MOTOR VEHICLE ENGINES

As set forth in the preamble, Subpart W of Part 85 of Chapter I, Title 40 of the Code of Federal Regulations is revised to read as follows:

#### Subpart W—Emission Control System Performance Warranty Short Tests

##### Sec.

- 85.2201 Applicability.
- 85.2202 General provisions.
- 85.2203–81 Short test standards for 1981 and later model year light-duty vehicles.
- 85.2204–81 Short test standards for 1981 and later model year light-duty trucks.

- 85.2205–85.22 07 [Reserved]
- 85.2208 Alternative standards and procedures.
- 85.2209 2500 rpm/Idle test.
- 85.2210 Engine restart 2500 rpm/Idle test.
- 85.2211 Engine restart Idle test.
- 85.2212 Idle test.
- 85.2213 Two speed idle test.
- 85.2214 Loaded test.
- 85.2215 Exhaust analysis system.
- 85.2216 Dynamometer.
- 85.2217 Calibrations, adjustments.
- 85.2218 Test report.

Authority: Sec. 207, 301(a), Clean Air Act as amended (42 U.S.C. 7541(b) and 7601(a)).

#### Subpart W—Emission Control System Performance Warranty Short Tests

##### § 85.2201 Applicability.

(a) This subpart contains the short tests and standards to be employed in conjunction with the Emissions Performance Warranty, Subpart V.

(b) Vehicles manufactured by Ford Motor Co. must be tested with either the Engine Restart 2500 rpm/Idle Test procedure described in § 85.2210, or the Engine Restart Idle Test procedure described in § 85.2211, or the Loaded Test procedure described in § 85.2214 in order to be eligible for coverage under the Emissions Performance Warranty. This restriction does not apply to tests conducted at altitudes above 4000 feet. All other vehicles are eligible to receive warranty coverage using any of the short test procedures.

##### § 85.2202 General provisions.

The definitions and abbreviations in Subpart A of Part 85 of this chapter apply to this subpart.

##### § 85.2203–81 Short test standards for 1981 and later model year light-duty vehicles.

(a) For 1981 and later model year light-duty vehicles at low altitude, and for 1982 and later model year light-duty vehicles at high altitude to which high altitude certification standards of 1.5 g/mile HC and 15 g/mile CO or less apply, short test emissions shall not exceed:

- (1) 2500 rpm/Idle test, high speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (2) 2500 rpm/Idle test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (3) Engine restart 2500 rpm/Idle test, high-speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (4) Engine restart 2500 rpm/Idle test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (5) Engine restart idle test.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (6) Idle test.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (7) Two speed idle test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.0%.
- (8) Two speed idle test, high speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (9) Loaded test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (10) Loaded test, low speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.

##### (6) Idle test.

- (i) *Hydrocarbons*: 220 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.2%.

(7) Two speed idle test, idle mode. The lowest readings from the two idle modes shall be used to determine compliance.

- (i) *Hydrocarbons*: 200 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.0%.

(8) Two speed idle test, high speed mode.

- (i) *Hydrocarbons*: 200 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.0%.

(9) Loaded test, idle mode.

- (i) *Hydrocarbons*: 220 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.2%.

(10) Loaded test, low speed mode.

- (i) *Hydrocarbons*: 220 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.2%.

##### § 85.2204–81 Short test standards for 1981 and later model year light-duty trucks.

(a) For 1981 and later model year light-duty trucks at low altitude, and for 1982 and later model year light-duty trucks at high altitude to which high altitude certification standards of 2.0 g/mile HC and 20 g/mile CO or less apply, short test emissions shall not exceed:

- (1) 2500 rpm/Idle test, high speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (2) 2500 rpm/Idle test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (3) Engine restart 2500 rpm/Idle test, high-speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (4) Engine restart 2500 rpm/Idle test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (5) Engine restart idle test.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (6) Idle test.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (7) Two speed idle test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.0%.
- (8) Two speed idle test, high speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (9) Loaded test, idle mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.
- (10) Loaded test, low speed mode.
  - (i) *Hydrocarbons*: 220 ppm as hexane.
  - (ii) *Carbon Monoxide*: 1.2%.

The lowest readings from the two idle modes shall be used to determine compliance.

- (i) *Hydrocarbons*: 200 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.0%.
- (8) Two speed idle test, high speed mode.

- (i) *Hydrocarbons*: 200 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.0%.
- (9) Loaded test, idle mode.
- (i) *Hydrocarbons*: 220 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.2%.
- (10) Loaded test, low speed mode.
- (i) *Hydrocarbons*: 220 ppm as hexane.
- (ii) *Carbon Monoxide*: 1.2%.



## § 85.2205—85.2207 [Reserved]

## § 85.2208 Alternative standards and procedures.

(a)(1) As a part of the certification process, as set forth in § 86.078 et seq., a manufacturer may request an alternative short test standard or short test procedure for any vehicle or engine for which the standards or procedures specified in this subpart are not appropriate. The requestor shall supply relevant test data and technical support to substantiate the claim and shall also recommend alternative test procedures and/or standards for the Administrator's consideration. Upon an acceptable showing that the general standards or procedures are not appropriate, the Administrator shall set alternative standards or procedures through rulemaking. The administrative provisions of the certification process [see § 86.078 et seq.], apply to such a request for alternative standards or procedures.

(2) Any such alternative standards or test procedures must be specified on the emission control information label to be effective for that particular vehicle or engine. The Administrator may waive this requirement if it is determined that a given model year of production for which an alternative test procedure is promulgated is too far advanced at the time of promulgation to make such a requirement practical.

(b) A State or other I/M authority conducting or supervising tests under this subpart may request to use quality control procedures which are different than those in § 85.2217. After an appropriate opportunity for public comment, the Administrator may approve the requested procedures provided the requested procedures are equivalent to those in § 85.2217. The requestor shall supply relevant test data and technical support to substantiate the claim that the procedures are equivalent to the specifications described in § 85.2217. Following a preliminary determination by the Administrator that an alternative procedure is equivalent, a Federal Register notice will be published announcing the request and explaining EPA's preliminary determination. All information relevant to the preliminary determination will be made available for comment in the public docket. Interested parties will be given 30 days to submit comments, and if EPA concludes that the preliminary determination was not in error, a final Federal Register notice will be published granting the State permission to use the alternative procedure.

(c) A State or other I/M authority conducting or supervising tests under this subpart may request to use alternative short test standards or procedures. The requestor shall supply relevant test data and technical support to substantiate the claim and shall also recommend alternative standards or test procedures for the Administrator's consideration. If the Administrator determines that the alternative standards or procedures satisfy the provisions of the Clean Air Act, 42 U.S.C. 7541 (b)(i), (b)(ii), and (b)(iii), the Administrator shall set alternative standards or procedures through rulemaking.

## § 85.2209 2500 rpm/Idle test.

(a) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(b) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operating condition and adjusted as required in § 85.2217.

(2) Attach tachometer pick up.

(3) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe.

(4) The engine speed shall be increased to  $2500 \pm 300$  rpm, with transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling multiple tailpipes may be used. However, if this hardware is not used, exhaust concentrations from each pipe shall be measured within the 30 second period if stable readings can be obtained from both pipes before the 30 seconds have elapsed. If this is not possible, the procedures shall be conducted through step (5) for the first pipe and then the entire procedure beginning from step (3) shall be repeated for the second pipe. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which the exhaust pipes originate from a common point.

(5) The engine speed shall be reduced to free idle with transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. Repeat as specified in paragraph (b)(4) of this section for multiple exhaust pipes, unless hardware capable of simultaneous sampling of multiple exhaust pipes is used.

(6) For vehicles with multiple exhaust pipes, the separate results from each pipe for each mode (paragraphs (b) (4) and (5) of this section) shall be numerically averaged for each pollutant, unless hardware which is capable of simultaneously sampling multiple exhaust pipes has been used.

(7) Exhaust concentration measurements from both the idle mode and the high speed mode are required.

## § 85.2210 Engine restart 2500 rpm/Idle test.

(a) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(b) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operating condition and adjusted as required in § 85.2217.

(2) Attach tachometer pick up.

(3) The engine shall be turned off and then restarted.

(4) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe.

(5) The engine speed shall be increased to  $2500 \pm 300$  rpm, with the transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. However, if this hardware is not used, exhaust concentrations from each pipe shall be measured within the 30 second period if stable readings can be obtained from both pipes before the 30 seconds have elapsed. If this is not possible, the procedure shall be conducted through step (6) for the first pipe and then the entire procedure beginning from step (3) shall be repeated for the second pipe. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust pipes originating from a common point.

(6) The engine speed shall be reduced to free idle with transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. However, if this hardware is not used, exhaust concentrations from both pipes shall be measured in this step (6) within the 30 second period if stable readings

can be obtained before the 30 seconds have elapsed. If this is not possible, the entire procedure beginning from step (3) shall be repeated for the second pipe. For vehicles with multiple exhaust pipes only one of which was measured in step (5) before the 30 seconds at  $2500 \pm 300$  rpm had elapsed, the entire procedure beginning from step (3) shall be repeated for the second pipe after this step (6) is completed for the first pipe. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust pipes originating from a common point.

(7) For vehicles with multiple exhaust pipes, the separate results from each pipe for each mode (paragraphs (b)(5) and (6) of the section) shall be numerically averaged for each pollutant, unless hardware which is capable of simultaneously sampling multiple exhaust pipes has been used.

(8) Exhaust concentration measurements from both the idle mode and the high speed mode are required.

#### § 85.2211 Engine restart idle test.

(a) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(b) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operation condition and adjusted as required in § 85.2217.

(2) Attach tachometer pick up.

(3) The engine shall be turned off and then restarted.

(4) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe.

(5) The engine speed shall be increased to  $2500 \text{ rpm} \pm 300 \text{ rpm}$ , with transmission in neutral, for 30 seconds.

(6) The engine speed shall be reduced to free idle with transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. However, if this type of hardware is not used, exhaust concentrations from each pipe shall be measured within the 30 second period if stable readings can be obtained from both pipes before the 30 seconds have elapsed. If this is not possible, the entire procedure beginning from step (3) shall be repeated for the second pipe. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which

the exhaust pipes originate from a common point.

(7) Multiple readings from multiple exhaust pipes shall be numerically averaged, if taken.

#### § 85.2212 Idle test.

(a) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(b) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operating condition and adjusted as required in § 85.2217.

(2) *Optional:* The engine may be preconditioned by operating it at  $2500 \pm 300 \text{ rpm}$  for up to 30 seconds.

(3) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which the exhaust pipes originate from a common point.

(4) Multiple readings from multiple exhaust pipes shall be numerically averaged, if taken.

#### § 85.2213 Two speed idle test.

(a) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(b) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operating condition and adjusted as required in § 85.2217.

(2) Attach tachometer pick up.

(3) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which the exhaust pipes originate from a common point.

(4) The engine speed shall be increased to  $2500 \pm 300 \text{ rpm}$ , with transmission in neutral. Record exhaust

concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. Repeat as in paragraph (b)(3) of this section for multiple exhaust pipes, if necessary.

(5) The engine speed shall be reduced to free idle with transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. Repeat as specified in paragraph (b)(3) of this section for multiple exhaust pipes, if necessary.

(6) For vehicles with multiple exhaust pipes, the separate results from each pipe for each mode (paragraphs (b)(3), (4), and (5) of this section) shall be numerically averaged for each pollutant, unless hardware which is capable of simultaneously sampling multiple tailpipe vehicles has been used.

(7) The idle mode final results shall be the lowest HC and lowest CO readings from steps (3) and (5).

(c) Exhaust concentration measurements from both the idle mode and the high speed mode are not required. The short test may be used to evaluate emissions from either mode alone or from both modes, the choice being made by the jurisdiction implementing the inspection program. If exhaust concentrations are not measured on a given mode, the vehicle shall be operated at the specified test condition for 15 to 30 seconds. The final idle mode, paragraph (b)(5) of this section, may be omitted if only high speed mode exhaust concentrations are to be measured or if the vehicle is below idle standards on the first measurement, paragraph (b)(3) of this section. The high speed mode and final idle mode may be omitted if only idle mode exhaust concentrations are to be measured and if the vehicle is below idle standards on the first measurement.

#### § 85.2214 Loaded test.

(a) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off. An auxiliary cooling fan is optional.

(b) *Test sequence.* (1) The dynamometer and analyzers shall be warmed-up, in stabilized operating condition and adjusted as required in §§ 85.2216 and 85.2217.

(2) The vehicle shall be placed on the dynamometer.

(3) The sample probe shall be inserted into the tailpipe.

(4) *Optional.* A high speed mode, maximum 50 mph and 30 seconds

duration, is permitted if vehicle overheating does not occur.

(5) Drive for automatic or 3rd gear for manual transmissions shall be used. The vehicle shall be operated at  $30 \pm 1$  mph roll speed while measuring exhaust HC and CO. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which the exhaust pipes originate from a common point.

(6) The vehicle shall be idled in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. Repeat as specified in paragraph (b)(5) of this section for multiple exhaust pipes, if necessary.

(7) For vehicles with multiple exhaust pipes, the separate results from each pipe for each mode (paragraphs (b) (5) and (6) of this section) shall be numerically averaged for each pollutant, unless hardware which is capable of simultaneously sampling multiple tailpipe vehicles has been used.

(c) Exhaust concentration measurements from both the loaded mode and the idle mode are not required. The short test may be used to evaluate emissions from either mode alone or from both modes, the choice being made by the jurisdiction implementing the inspection program. If exhaust concentrations are not measured on the loaded mode the vehicle shall be operated at the specified test condition for 15 to 30 seconds. If idle exhaust concentrations are not measured, the idle mode may be omitted.

#### § 85.2215 Exhaust analysis system.

(a) *Sampling System.*—(1) *General Requirements.* The exhaust sampling system shall consist of a sample probe, moisture separator and analyzers for HC and CO.

(2) *Dual sample probe requirements.* If used, a dual sample probe must provide equal flow in each leg. The equal flow criterion is considered to be met if the flow rate in each leg of the probe (or an identical model) has been measured under two sample flow rates (the normal rate and a rate equal to the onset of low flow), and if the flow rates in each of the legs are found to be equal to each other ( $\pm 15\%$ ).

(b) *Analyzers.*—(1) *Accuracy.* The HC analyzer shall have an accuracy of  $\pm 15$

ppm at 200 to 220 ppm concentration HC (as hexane). The CO analyzer shall have an accuracy of  $\pm 0.1\%$  CO from 1.0% to 1.2% concentration.

(2) *Response time.* Response time of the analyzers shall be 15 seconds to 95% of the final reading.

(3) *Drift.* Analyzer drift (up-scale and down-scale zero and span wander) shall not exceed  $\pm 0.1\%$  CO and  $\pm 15$  ppm HC (as hexane) on the lowest range capable of reading 1.0% or 200 ppm HC (as hexane) during a one-hour period.

#### § 85.2216 Dynamometer.

(a) The loaded test dynamometer shall be adjusted to produce a load of 9.0  $\pm 1.0$  hp at 30 mph.

(b) Speed shall be measured from the dynamometer roll(s) with an accuracy of  $\pm 1.5$  mph at 30 mph true roll speed.

#### § 85.2217 Calibrations, adjustments.

(a) Equipment shall be calibrated in accordance with the manufacturers' instructions.

(b) *Hourly checks.* Within one hour prior to a test, the analyzers shall be zeroed and spanned. Ambient air is acceptable as a zero gas; an electrical span check is acceptable. Zero and span checks shall be made on the lowest range capable of reading the short test standard. Analyzers that perform an automatic zero/span adjustment every time a test sequence is initiated are considered to meet the hourly checks.

(c) *Daily checks.* Within eight hours prior to a loaded test, the dynamometer shall be checked for proper power absorber settings.

(d) *Weekly checks.*—(1) *Leak check.* For analyzers with a separate calibration or span port, CO readings using the span gas through the probe and through the calibration port shall be made and compared; discrepancies of over 3% shall require repair of leaks. No analyzer adjustments shall be permitted during this check. The leak check and the following gas span check may be combined into one operation.

(2) *Gas span check.* Within one week of the test, the analyzers shall have been spanned using calibration gases which meet the requirements in paragraph (d)(4) of this section and shall not have been readjusted since to a non-conforming gas. If the analyzer reads the span gas within 2% of the span gas value or within .05% CO and 6 ppm HC (use the larger of the two tolerances), then no adjustment of the analyzer is needed. For this check the span gas may be introduced either through the calibration port (if so equipped) or through the probe. This paragraph does not prevent those who wish to always adjust the

analyzer to the exact span value from doing so.

(3) *Gas span adjustment.* If the analyzer fails to meet the gas span check specifications, then the analyzer shall be adjusted by the following procedures:

(i) For analyzers *without* a calibration port, perform a simple leak check (e.g., cap the probe). Repair any leaks before continuing with this procedure.

Introduce the span gas through the probe for this adjustment.

(ii) For analyzers *with* a calibration port, introduce the span gas through the port for this adjustment.

(iii) Perform a zero adjustment and a flowing span gas adjustment. Iterate between span and zero, as necessary, to obtain stable readings within the gas span check specifications.

(iv) Check the electrical span *without* changing the zero or span adjustments set in step (iii). If the electrical span does not match the electrical span line or voltage level, locate the potentiometer that controls the relationship between the gas span and the electrical span. Adjust this control until the electrical span target is achieved.

(v) Following this procedure, if the gas span value cannot be held within the 2% tolerance (or .05% CO and 6 ppm HC) while also meeting the electrical span criteria, then the analysis system and calibration bottle shall be removed from service until the problem is resolved and the adjustment tolerance met.

(vi) Automatic analyzers that perform either a substantially similar adjustment procedure or mathematical correction procedure are considered to meet this adjustment procedure.

(4) *Span gases.* The span gas used for the weekly check shall be traceable to NBS standards  $\pm 2\%$  and have concentrations either:

(i) Between the standards specified in this subpart and the jurisdiction's inspection standards for the 1981 model year light duty vehicles, or

(ii) Within  $-50\%$  to  $+100\%$  of the standards in this subpart.

(e) *Other checks.* In addition to performing span and leak checks on a periodic basis, these checks shall also be used to verify system performance under the following special circumstances.

(1) *Gas span.* Each time the analyzer electronic or optical systems are repaired or replaced, a gas span shall be performed prior to returning the unit to service.

(2) *Leak checks.* Each time the sample line integrity is broken, a leak check shall be performed prior to testing. A

simple vacuum leak check (i.e., block the probe and check for low flow) is considered acceptable for these non-periodic checks.

**§ 85.2218 Test report.**

(a) Upon failure of a short test, the vehicle's operator or owner shall be furnished with a test report containing:

(1) Vehicle description, including either license plate or manufacturer

identification number, and odometer readings.

(2) Date of test.

(3) Name of individual or organization performing the test and location thereof.

(4) Type of short test performed.

(5) Test results, exhaust concentrations for each mode measured.

(b) The test report shall certify that the short test was performed in accordance with these regulations and it shall be signed by an individual who

either performed the test or has actual knowledge of the performance of the test.

(c) For purposes of this section, "failure of a short test" means that the vehicle exceeded the standards in this subpart or the Inspection/Maintenance standards of the jurisdiction, whichever is less stringent.

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Environmental  
Protection  
Agency

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Tuesday  
June 12, 1984

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**Part V**

**Environmental  
Protection Agency**

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**40 CFR Part 141**

**National Primary Drinking Water  
Regulations; Volatile Synthetic Organic  
Chemicals; Proposed Rulemaking**

# ENVIRONMENTAL PROTECTION AGENCY

## 40 CFR Part 141

[OW-FRL-2514-3]

### National Primary Drinking Water Regulations; Volatile Synthetic Organic Chemicals

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rulemaking.

**SUMMARY:** This proposed rule under the Safe Drinking Water Act (42 U.S.C. 300f *et seq.*) establishes Recommended Maximum Contaminant Levels (RMCLs) for the following volatile synthetic organic chemicals (VOCs) in drinking water: trichloroethylene, tetrachloroethylene, carbon tetrachloride, 1,1,1-trichloroethane, vinyl chloride, 1,2-dichloroethane, benzene, 1,1-dichloroethylene, and p-dichlorobenzene. RMCLs (goals) for non-carcinogens are proposed based upon chronic toxicity data, and RMCLs (goals) for carcinogens are proposed at the zero level. VOCs that are not included in this proposal may be considered for subsequent rulemaking as appropriate.

RMCLs are *non-enforceable health goals* which are to be set at levels which would result in no known or anticipated adverse health effects with an adequate margin of safety. This proposal is the initial stage in rulemaking for the establishment of primary drinking water regulations for the VOCs. Following this proposal, Maximum Contaminant Levels (MCLs) and monitoring/reporting requirements will be proposed when the RMCLs are promulgated. MCLs are *enforceable standards* and are to be set as close to the RMCLs as is feasible and are based upon health, treatment technologies, cost and other factors.

Public comments are solicited on the approach to setting RMCLs as proposed in this notice as well as on the alternatives presented. Specifically, comments are requested on the following: Should the RMCLs for carcinogens be zero or a level of exposure considered to constitute a negligible incremental lifetime risk, say one in one million, based upon a conservative risk estimate calculation procedure; or should the RMCLs for carcinogens be established at the limits of analytical detection?

**DATES:** Written comments should be submitted by September 10, 1984. A public hearing will be held in Washington, D.C. on August 6 and 7, 1984, if needed beginning at 9:00 a.m..

**ADDRESSES:** Send written comments to Comment Clerk, Criteria and Standards Division, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. A copy of the comments and supporting documents will be available for review during normal business hours at the EPA, Room 55EB, 401 M Street, S.W., Washington, D.C. 20460. The public hearing will be held in Room 3906, EPA, 401 M. St. S.W., Washington, D.C. It is requested that anyone planning to attend the public hearing (especially those who plan to make statements) register in advance by calling or writing Ms. Arnetta Davis at 202/382-7575, EPA, WH-550, 401 M St., S.W., Washington, D.C. 20460. Persons planning to make statements at the hearings are encouraged to submit written copies of their remarks at the time of the hearing.

References cited on section VII will be available for inspection at the Drinking Water Supply Branches of EPA's Regional Offices.

- I. JFK Federal Bldg., Boston, MA 02203, Phone: (617) 223-6486, Jerome Healy
- II. 26 Federal Plaza, Room 824, New York, NY 10278, Phone: (212) 264-1800, Walter Andrews
- III. 6th & Walnut Sts., Philadelphia, PA 19106, Phone: (215) 597-9873, Bernie Sarnowski
- IV. 345 Courtland Street, Atlanta, GA 30365, Phone: (404) 881-3781, Robert Jourdan
- V. 230 S. Dearborn St., Chicago, IL 60604, Phone: (312) 886-6176, Joseph Harrison
- VI. 1201 Elm St., Dallas, TX 75270, Phone: (214) 767-2620, James Graham
- VII. 324 East 11th St., Kansas City, MO 64106, Phone: (816) 374-6514, Gerald R. Foree
- VIII. 1860 Lincoln St., Denver, CO 80295, Phone: (303) 837-2731, Dean Chaussee
- IX. 215 Fremont St., San Francisco, CA 94105, Phone: (415) 974-8076, Leslie Ragle
- X. 1200 Sixth Ave., Seattle, WA 98101, Phone: (206) 442-1225, Jerry Opatz

Copies of the nine draft health criteria documents will be available for a fee from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 800/336-4700; local: 703/487-4650.

**FOR FURTHER INFORMATION CONTACT:** Contact Joseph A. Cotruvo, Ph. D., Director, Criteria and Standards Division, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, telephone (202) 382-7575.

## SUPPLEMENTARY INFORMATION:

- I. Statutory Requirements
- II. Regulatory Framework
- III. Background and Summary of Comments
- IV. VOCs in Drinking Water
  - Occurrence of VOCs in Drinking Water
  - Human Health Considerations
    - Development of RMCLs for Non-carcinogens
    - Development of RMCLs for Carcinogens
    - Toxicology of VOCs
- V. RMCL Development Rationale
  - VOCs: Regulatory Approach
  - Regulations for Which VOCs
  - RMCLs: Regulatory Approach
- VI. Other Considerations for Public Comment
- VII. References
- VIII. Request for Comments

## I. Statutory Requirements

The Safe Drinking Water Act (42 USC 300f, *et seq.*) ("SDWA" or "the Act") requires the EPA to establish primary drinking water regulations which: (1) Apply to public water systems; (2) specify contaminants which in the judgment of the Administrator, may have any adverse effect on the health of persons; (3) specify for each contaminant either (a) maximum contaminant levels (MCLs) or (b) treatment techniques. See section 1401(l), 42 U.S.C. 300f. A treatment technique requirement would only be set if "it is not economically or technologically feasible" to ascertain the level of a contaminant in drinking water.

The SDWA includes provisions for interim and revised regulations. See section 1412, 42 U.S.C. 300g-1. Interim regulations were to be established within 180 days of enactment of the SDWA. Revised regulations are to be developed in two steps: the Agency is to establish recommended maximum contaminant levels (RMCLs) and then establish maximum contaminant levels (MCLs) as close to the RMCLs as feasible. MCLs are to be proposed at the time of promulgation of the RMCLs. *RMCLs are non-enforceable health goals.* RMCLs are to be set at a level which, in the Administrator's judgment, "no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety". Section 1412(b)(1)(B). The House Report on the 1974 legislation provides congressional guidance on developing RMCLs:

\*\*\* the recommended maximum [contaminant] level must be set to prevent the occurrence of any known or anticipated adverse effect. It must include an adequate margin of safety, unless there is no safe threshold for a contaminant. In such a case, the recommended maximum contaminant level should be set at zero level.



House Report No. 93-1185, July 10, 1974, at 20.

*MCLs are the enforceable standards.* MCLs must be set as close to RMCLs as is feasible. Feasible means "with the use of the best technology, treatment techniques and other means, which the Administrator finds are generally available (taking costs into consideration)." Section 1412(b)(3).

RMCLs of themselves have no impact on public water systems or the public. By promulgating RMCLs, no system is forced to reduce contaminants to this level or to take other action regarding contaminants. RMCLs serve as goals for the Agency in the course of setting MCLs and are therefore initial steps in the MCL rulemaking that will follow. In some cases, the MCLs will be set very close to the RMCLs; in other cases control processes or economic considerations may dictate an MCL that is not as close. Public water systems must comply with the MCL; non-compliance with an RMCL cannot be the basis of an enforcement action under section 1414 of the Safe Drinking Water Act.

In addition, the SDWA specifies that primary drinking water regulations contain criteria and procedures to assure a supply of water that complies with the MCLs (i.e., *monitoring and reporting requirements*). Section 1401(1)(D). Section 1445(a) authorizes EPA to require by regulation any public water supplier to keep records, make reports, conduct monitoring and provide such other information as may be required to assist in determining compliance with the SDWA, in evaluating health risks of unregulated contaminants, or in advising the public of such health risks.

The SDWA also requires that the revised primary drinking water regulations be reviewed every three years and amended whenever changes in technology, treatment techniques or other factors permit greater health protection.

In addition to the regulatory mandates, the SDWA provides authorities for ensuring the safety of the nation's drinking water in a non-regulatory context. Section 1442(a)(2)(B) authorizes EPA to provide technical assistance to States and publicly owned water systems in response to and alleviation of any emergency situation which the Administrator determines to be a substantial danger to public health. In the absence of appropriate State or local action, section 1431 authorizes EPA to take such actions as the administrator deems necessary to protect public health from a contaminant that may present an

imminent and substantial endangerment to the health of persons.

## II. Regulatory Framework

The issuance of Revised Primary Drinking Water Regulations is the third step in the evolution of the primary drinking water regulations mandated by the SDWA.

In the *first step*, the National Interim Primary Drinking Water Regulations (NIPDWR) were promulgated on December 24, 1975, with an effective date of June 24, 1977. Amendments were issued in 1976, and 1979 and 1980. See 40 CFR 141. Maximum contaminant levels (MCLs) and monitoring and reporting requirements were set for numerous microbiological, inorganic, organic, and radionuclide contaminants (40 CFR, Part 141, Subpart B). At the direction of the Congress, EPA based the NIPDWR in large part on the 1962 U.S. Public Health Service (PHS) Standards for drinking water which in turn were derived from previous standards dating as far back as 1915 for the microbiological standards and the 1940's for the MCLs for some of the inorganic chemicals.

As the *second step*, section 1412(e) of the SDWA directed EPA to arrange for the National Academy of Sciences (NAS) or an equivalent organization to conduct a study to assess the health effects of contaminants in drinking water and to provide proposals for RMCLs at levels at which there were "no known or anticipated effects on the health of persons \* \* \*," and a list of contaminants whose levels in drinking water cannot be determined but which may have an adverse effect on the health of persons. The NAS submitted its initial report, "Drinking Water and Health," to EPA in 1977 which was published in the Federal Register for public comment; four additional reports have been received. While Congress envisioned that the NAS would provide proposals for RMCLs in the report, the NAS stated essentially that it would do toxicological assessments of contaminants in drinking water but that developing proposals for RMCLs was not an NAS responsibility but an EPA regulatory function. In the words of the Academy, "determining safe levels to protect the health of persons' drinking water containing contaminants requires consideration of other factors in addition to the harmful properties of the contaminants" (John S. Coleman, Executive Officer, NAS, Feb. 20, 1975). The NAS reports have provided EPA with toxicological assessments of contaminants in drinking water and based upon this information and data from other scientific sources, EPA is developing the RMCLs.

As the *third step*, section 1412(b)(1)(B) provided that EPA must propose and promulgate National Revised Primary Drinking Water Regulations (NPDWR) that would include RMCLs, MCLs and monitoring and reporting requirements for those contaminants that may have an adverse effect on human health.

## Regulatory Development Approach

Development of the NPDWR will be accomplished in four phases:

- Phase I Volatile Synthetic Organic Chemicals,
- Phase II Synthetic Organic Chemicals, Inorganic Chemicals and Microbiological Contaminants,
- Phase III Radionuclides,
- Phase IV Disinfectant By-Products including Trihalomethanes.

In general the approach for all four phases will be similar.

- Initially an ANPRM will be published followed by a comment period and a public meeting. Public technical workshops will also be held. The workshops provide an opportunity for EPA to present the issues that must be addressed in development of the regulations and to receive information on scientific and technical matters as well as receive comments on regulatory approaches.

- RMCLs will then be proposed followed by a public comment period and a public hearing(s).

- RMCLs will then be promulgated and proposals published for MCLs or treatment techniques, monitoring and reporting, and other requirements followed by a public comment period and a public hearing(s). Technologies will be identified that were used as the basis of determining the MCLs; in addition, generally available treatment technologies (GAT) will be identified for use in compliance with the MCLs and the issuance of variances.

- The MCLs or treatment techniques, monitoring and reporting, and other requirements including GAT will then be promulgated.

An ANPRM for Phase I (VOCs) was issued on March 4, 1982 (47 FR 9350, et seq.), and a public meeting was held in Washington, D.C., on April 23, 1982. In addition, four public technical workshops were conducted across the country (June-August 1982) on volatile synthetic organic chemicals (VOCs) in drinking water.

## III. Background and Summary of Comments

The ANPRM identified the VOCs listed below as among those most commonly detected in drinking water based upon data available at that time.

trichloroethylene  
tetrachloroethylene  
carbon tetrachloride  
1,1,1-trichloroethane  
1,2-dichloroethane  
vinyl chloride  
dichloromethane  
benzene  
chlorobenzene  
dichlorobenzene  
trichlorobenzene  
1,1-dichloroethylene  
cis-1,2-dichloroethylene  
trans-1,2-dichloroethylene

The purpose of the ANPRM was to solicit comments on the many scientific, technical, legal and economic questions associated with determining the proper approach under the Safe Drinking Water Act (SDWA) to limit human exposure to VOCs.

The ANPRM was published to initiate discussions that would assist the Agency in determining the proper approach under the SDWA for minimizing human exposure to VOCs. The public was invited to comment on the following broad issues:

- What is the significance of contamination of drinking water by VOCs?
- Should national standards be set for VOCs?
- If standards are appropriate, how should levels be established?

In addition to the above broad questions, comments were requested on specific technical and scientific questions. Also, available reference materials on occurrence, health effects, analytical methods, and treatment costs of VOCs in drinking water were provided for technical and scientific review.

#### *Summary of Public Comments*

A total of 136 public written comments were received with the comment period ending on September 30, 1982.

The National Drinking Water Advisory Council (NDWAC) met in Washington, D.C., on September 23-24, 1982, to discuss the VOC ANPRM and its related issues. The NDWAC provided its recommendations to the Administrator in a letter dated January 5, 1983.

Public comments pertinent to this proposal are summarized in this section and in Appendix A. Comments pertinent to proposal of the MCLs and monitoring/reporting requirements will be summarized in that proposal. The public workshops conclusions and recommendations and the NDWAC recommendations are briefly summarized below. As representative of comments received by drinking water

industry associations and public interest groups, comments submitted by the American Water Works Association and Natural Resources Defense Council (NRDC), respectively, are also summarized.

#### *Summary of Comments From Public Workshops*

Overall, it was concluded that contamination by VOCs is a national problem warranting action. There was sentiment in favor of establishing MCLs and some sort of monitoring program, provided the health effects data are valid and indicate the need to reduce human exposure.

The health effects work groups believed that there are sufficient data to cause concern. Three groups suggested that MCLs be set. However, every group qualified its recommendation by saying, variously, that the data are limited, more studies are needed, and that the difference between genotoxic and non-genotoxic carcinogens should be addressed by EPA.

Aeration and granular activated carbon were identified as generally available technologies, effective in reducing VOC levels to 10 µg/l (micrograms per liter or parts per billion (ppb)) or lower. Cost projections presented by EPA were considered to be reasonable but they should be updated.

The proposed analytical methods were found to be suitably accurate and the best available at this time.

Concerning monitoring, the consensus seemed to be that EPA should provide minimum requirements within which States could develop their own monitoring plans, if data show that VOC contamination can be adequately predicted. EPA would provide criteria and guidance to assist States in predicting which systems were vulnerable to contamination by VOCs and thus be monitored.

#### *American Water Works Association (AWWA)*

The AWWA recommended that contaminants be controlled at their source through EPA's existing statutory authorities. They believed MCLs are not appropriate at this time, since "safe" levels of VOCs cannot be determined from existing health-effects data. However, when the health effects data have been evaluated by a recognized independent scientific organization (i.e., National Academy of Sciences (NAS)), the AWWA felt that MCLs should be established if a significant health risk exists.

In the interim, AWWA recommended that national monitoring for specific compound identification should be

implemented for all water supplies, preferably using the purge and trap procedure (EPA Method 502.1 or equivalent), but requirements for systems serving less than 10,000 people would be at the discretion of the State. The initial monitoring frequency should be similar to the trihalomethane (THM) rule. In addition, guidance in the form of contamination levels, and action categories for five of the VOCs (i.e., vinyl chloride, trichloroethylene, tetrachloroethylene, carbon tetrachloride, 1,2-dichloroethane) should be established for all water supplies.

#### *Natural Resources Defense Council (NRDC)*

The NRDC recommended comprehensive national standards for volatile organic chemicals (VOCs) saying that the occurrence and health effects data show a significant national problem that warrants action under the SDWA. NRDC stated the EPA should establish RMCLs and MCLs for the 14 VOCs addressed in the ANPRM as well as an RMCL and MCL for total VOCs supported by mandatory national monitoring requirements. Other comments by NRDC included:

- Recommended Maximum Contaminant Levels (RMCLs) should be set at zero for carcinogens. RMCLs for non-carcinogens may be set at a no-observed-effect-level with an adequate margin of safety because RMCLs are health goals and are not intended to reflect feasibility of attainment.

- The multi-stage model as modified by the Carcinogen Assessment Group (CAG) should not be used in establishing RMCLs for carcinogens. Mathematical models at best provide crude estimates of the risks resulting from exposure to a carcinogen.

- Calculations of exposure levels corresponding to lifetime cancer risks of  $10^{-6}$  should provide the upper limit for MCLs. That is, contaminant levels should be set at concentrations corresponding to lifetime cancer risks of no greater than  $10^{-6}$ . MCLs for non-carcinogens should be set at correspondingly conservative levels.

#### *NDWAC Recommendations*

The National Drinking Water Advisory Council (NDWAC) provided the following recommendations and analyses.

1. The occurrence data derived primarily from the random surveys conducted by EPA and selected data produced by the States in conjunction with the health risk data, warrant establishing controls for 5 of the VOCs

found in drinking water. These are: trichloroethylene, tetrachloroethylene, carbon tetrachloride, 1,2-dichloroethane and 1,1,1-trichloroethane.

2. Regulations under the Safe Drinking Water Act should be established for those 5 chemicals at this time. Additional data would be needed before a decision could be made on other volatile organics found in drinking water. Health advisory type guidance should be provided for these compounds in lieu of establishing MCLs.

3. Sufficient animal toxicology does exist at this time for establishing RMCLs for those 5 chemicals noted in 1. above. Quantitative risk calculations using a linearized multi-stage model should be used for establishing RMCLs for the carcinogens. A 1 in 100,000 target risk is recommended as the RMCL. For 1,1,1-trichloroethane, which the current data indicate is not carcinogenic, the RMCL should be calculated from the No Observed Effect Level (NOEL) for neurotoxicity with appropriate safety factors.

4. The analytical methodology for detecting and quantitating VOCs is well established (i.e., EPA Method 502.1 using the Purge and Trap technique and similar procedures). No information was provided to the Council on the availability of laboratory services; however, it is assumed that services would be available to meet ultimate demand. The Council believes that monitoring is technically and economically feasible.

5. Sufficient data exists at this time to determine that granular activated carbon and aeration are "generally available technologies" for central treatment application. Appropriately designed point of use devices, when shown to be effective for VOC control, can also be considered for some small water systems if they are cost/effective and properly managed.

#### IV. Volatile Synthetic Organic Chemicals in Drinking Water

Hundreds of chemicals have been detected at one time or another in drinking water in the U.S., but the vast majority have been detected infrequently and at very low concentrations. Selection of candidate chemicals for revised national primary drinking water regulations is made from an analysis of data on the occurrence frequency, concentrations detected, size of the exposed populations and the toxicology of the chemicals. This section briefly summarizes the available occurrence data, provides an overview of population exposure estimates, and discusses the health effects data for the VOCs. Additional information can be

found in the references listed in section VII.

#### Occurrence of VOCs in Drinking Water

One or more VOCs have been detected in numerous public water systems across the country. Typically, contamination is at low levels (i.e., less than 1 part per billion,  $\mu\text{g/l}$ ) but some systems have found higher levels. The VOCs are man-made chemicals, their presence may indicate that a pollution incident has occurred, and some of them are among the most frequently detected contaminants around hazardous waste sites. Several of these chemicals are suspected carcinogens, with differing degrees of evidence, while certain of these are mutagens and/or teratogens in some test systems.

In 1982, EPA conducted a national sampling (Ground Water Supply Survey (GWSS)) of almost 1000 drinking water systems using ground water; 500 were selected at random and 500 were selected by the States as having high potential for VOC contamination (non-random). Table 1 presents results of the random portion of the GWSS. Approximately 21 percent of the systems in the random set had one or more of the VOCs at detectable levels (mostly in the sub  $\mu\text{g/l}$  range). The data showed a distinct difference in the frequency of occurrence of VOCs between larger and smaller systems; approximately 28 percent of samples in systems serving over 10,000 detected one or more VOCs in the drinking water whereas 17 percent of samples in systems serving less than 10,000 detected VOCs. Six tenths percent of all public water systems serving less than 10,000 were sampled in the survey whereas 15 percent of systems greater than 10,000 were sampled.

Six national surveys have been conducted by EPA since 1975. These include:

- National Organics Reconnaissance Survey (NORS)
- National Organics Monitoring Survey (NOMS)
- National Screening Program for Organics in Drinking Water (NSP)
- Community Water Supply Survey (CWSS)

- Rural Water Survey (RWS)
- Ground Water Supply Survey (GWSS)

Based upon the above six surveys, projections of national occurrence and human exposure potential for the VOCs are summarized in Table 2 for levels associated with various risk rates. These surveys were conducted for various purposes over an eight year period which saw a rapidly developing state-of-the-art in water analytical methods. Different analytical procedures were used and, consequently, some surveys were able to detect and measure particular VOCs at lower concentrations than other surveys were able to do. The most significant portion of the data base on VOCs, however, is derived from the Ground Water Supply Survey and the Community Water Supply Survey.

In combining the survey data, the national projections of the frequency of occurrence of VOCs at various concentrations can be provided only for those concentrations at or above the level at which all of the surveys were capable of detecting and measuring them. This level, referred to as the lowest common quantifiable concentration, is generally the highest detection limit or minimum quantifiable concentration from among the surveys that are combined. Table 2 shows the estimated frequency of occurrence of the VOCs at or above the lowest common quantifiable concentration. Individual surveys using detection limits or minimum quantifiable concentrations less than the lowest common quantifiable concentration may report a higher frequency of occurrence of some VOCs. For example, according to Table 2, 3.6% of the nation's ground water supplies are projected to have trichloroethylene at or above the lowest common quantifiable concentration of 0.5  $\mu\text{g/l}$ , whereas the GWSS (random sample), using a minimum quantifiable nominal concentration of 0.2  $\mu\text{g/l}$ , reported trichloroethylene to be present in 6.4% of the supplies sampled (Table 1). (Note: The GWSS random sample was found to have 4.1% at or above 0.5  $\mu\text{g/l}$ .)

TABLE 1.—Summary of GWSS Occurrence Data

(Random sample n=450)

Parameter	Quantification Level $\mu\text{g/l}$	Positives		Median of + $\mu\text{g/l}$	Max $\mu\text{g/l}$
		No.	Percent		
Tetrachloroethylene	0.2	34	7.3	0.5	23
Trichloroethylene	2	33	6.4	1	73
1,1,1-Trichloroethane	2	27	5.8	.8	18
1,1-Dichloroethane	2	18	3.9	.5	3.2
1,2-Dichloroethenes (cis and/or trans)	2	16	3.4	1.1	2
Carbon tetrachloride	2	15	3.2	.4	16

TABLE 1.—Summary of GWSS Occurrence Data—Continued

[Random sample: n=466]

Parameter	Quantification limit $\mu\text{g/l}$	Positives		Median of $\pm \mu\text{g/l}$	Max $\mu\text{g/l}$
		No.	Percent		
1,1-Dichloroethylene.....	.2	9	1.9	.3	6.3
m-Xylene.....	.2	8	1.7	.3	1.5
o-+p-Xylene.....	.2	8	1.7	.3	.9
Toluene.....	.5	6	1.3	.8	2.9
1,2-Dichloropropane.....	.2	6	1.3	.9	21
p-Dichlorobenzene.....	.5	5	1.1	.7	1.3
Bromobenzene.....	.5	4	.9	1.8	5.8
Ethylbenzene.....	.5	3	.6	.8	1.1
Benzene.....	.5	3	.6	3	15
1, 2-Dichloroethane.....	.5	3	.6	.6	1
Vinyl chloride.....	1	1	.2	1.1	1.1
1, 2-Dibromo-3-chloropropane.....	5	1	.2	5.5	5.5
1, 1, 2-Trichloroethane.....	.2	0			
1, 1, 1, 2-Tetrachloroethane.....	.2	0			
1, 1, 2, 2-Tetrachloroethane.....	.5	0			
Chlorobenzene.....	.5	0			
n-Propylbenzene.....	.5	0			
o-Chlorotoluene.....	.5	0			
p-Chlorotoluene.....	.5	0			
m-Dichlorobenzene.....	.5	0			
o-Dichlorobenzene.....	.5	0			
Styrene.....	.5	0			
Isopropylbenzene.....	.5	0			

TABLE 2.—APPROXIMATE PERCENT OF GROUND WATER SYSTEMS AND SIZE OF POPULATION PROJECTED TO EXCEED THE NOMINAL INDICATED RISK LEVEL

Substance	Risk level	Drinking water		Nearest drinking water concentration for which data are available, $\mu\text{g/l}$	Percent of systems	Population exposed (thousands)
		Concentration	Risk level ( $\mu\text{g/l}$ )			
Trichloroethylene.....	$10^{-6}$	2.8	$1.8$	0.5	3.4	6,620
	$10^{-5}$	28	18	20	.4	510
	$10^{-4}$	280	180	100	.1	40
Tetrachloroethylene.....	$10^{-6}$	1		.5	3.6	4,270
	$10^{-5}$	10		10	.5	440
	$10^{-4}$	100		80	0	0
Carbon tetrachloride.....	$10^{-6}$	.4	$0.27$	.5 <sup>1</sup>	1.6	1,100
	$10^{-5}$	4	$2.7$	5	.3	160
	$10^{-4}$	40	27	40	0	0
Benzene.....	$10^{-6}$	.67		.5	1.5	1,000
	$10^{-5}$	6.7		5	.4	210
	$10^{-4}$	67		70	0	0
1,1-Dichloroethylene.....	$10^{-6}$	.23	$0.24$	.2	2.6	1,810
	$10^{-5}$	2.3	2.4	5	.1	70
	$10^{-4}$	23	24	20	0	0
1,2-Dichloroethane.....	$10^{-6}$	.95	$0.5$	.5	.3	1,230
	$10^{-5}$	9.5	5	5	0	0
	$10^{-4}$	95	50	20	0	0
Vinyl chloride.....	$10^{-6}$	1	$0.015$			
	$10^{-5}$	10	0.15			
	$10^{-4}$	100	1.5	1	.06	160
1,1,1-Trichloroethane <sup>2</sup> .....	$10^{-6}$	21.7		10	.3	270
	$10^{-5}$	217		100	.01	180
	$10^{-4}$	2,170				
p-Dichlorobenzene.....		$75$				

<sup>1</sup> Recent draft calculations by EPA's Carcinogen Assessment Group.<sup>2</sup> Preliminary data; non carcinogenic Adjustable Acceptable Daily Intake (AADI) is 1,000  $\mu\text{g/l}$ ; proposed RMCL is 200  $\mu\text{g/l}$ . Not considered in this proposal as a carcinogen. Developing data may change this classification. See text.<sup>3</sup> Random sample found 5 occurrences all below this level.

Estimating the occurrence of VOCs as a class in public water supplies is difficult because not all of the six surveys looked for all the listed VOCs and because the detection limits or minimum quantifiable concentrations for specific VOCs varied from one survey to another. However, some insight to the overall occurrence of VOCs can be gained from analyses of the data from the GWSS and CWSS. As shown in Table 3, in the GWSS, 99 of 466 (21.2%) randomly selected ground water supplies had at least one of the 29 VOCs identified in that survey. In the CWSS, 50 of the 330 (15.2%) ground water supplies had at least one of 10 VOCs identified in that survey; 14 of 108 (13.2%) surface water supplies were found to have one or more of the VOCs present.

Occurrence of VOCs at levels above 5  $\mu\text{g/l}$  appears to be more likely in ground water rather than surface water; however the detection frequencies may be similar. Virtually all persistent occurrences of VOCs above 50  $\mu\text{g/l}$  are expected to be in ground water. However, the frequency of specific VOCs occurring above that higher level is expected to be much less than 1%.

Table 3 also provides data on multiple occurrences of VOCs; 44 of 466 (9.4%) randomly selected sites in the GWSS had measurable levels of two or more VOCs, while 19 of 330 (5.8%) of the ground water supplies in the CWSS had two or more present.

TABLE 3.—Summary of Single and Multiple Occurrence of VOCs as a Class

No. of contaminants	GWSS <sup>1</sup>	GWSS <sup>2</sup>	
	Random <sup>3</sup>	Ground water <sup>4</sup>	Surface water <sup>5</sup>
0	357 (78.6%)	220 (24.9%)	80 (29.8%)
>1	93 (21.2%)	50 (15.2%)	14 (13.2%)
>2	44 (9.4%)	19 (5.6%)	5 (4.7%)
>3	26 (5.6%)	6 (1.6%)	1 (0.9%)
>4	14 (3.0%)	4 (1.2%)	0
>5	8 (1.7%)	2 (0.6%)	0
>6	4 (0.9%)	0	0
>7	2 (0.4%)	0	0
>8	0	0	0

<sup>1</sup> Based on analyses for 29 VOCs.<sup>2</sup> 466 supplies studied.<sup>3</sup> Based on analyses for 10 VOCs.<sup>4</sup> 330 supplies studied.<sup>5</sup> 106 supplies studied.

Table 4 shows the frequency of occurrence of supplies with total concentrations of the 29 VOCs examined in the GWSS (random sample) above the indicated levels.

In addition to the EPA national survey data, numerous incidents of contamination have been reported by States across the country, and contamination in some public water wells has been in the range of 100 µg/l to 1,000 µg/l and higher. Usually when concentrations in that range have been detected, corrective measures have been rapidly taken; this could explain the relatively small number detected in the random surveys.

Several States, including California, Michigan, New York, and Connecticut, have monitored comprehensively for VOCs while others have generally

responded to incidents of contamination. Table 5 summarizes State data that were available to EPA. The estimates of population exposed to VOCs in Table 2 are based only on the data from the EPA surveys; the State data and miscellaneous information were not included because those data were only from a few States and therefore not geographically representative. Furthermore, since much of the State data were obtained in response to incidents of recognized contamination problems, these data may not be representative of typical conditions existing nationally. However, while these data were not used for computing the national projections, they (including the GWSS non-random data) do provide a valuable and necessary perspective for evaluating those projections.

TABLE 4.—CUMULATIVE OCCURRENCE OF SUPPLIES IN THE GWSS RANDOM SAMPLE WITH TOTAL CONCENTRATION OF 29 VOC'S ABOVE THE INDICATED LEVELS

Total number of supplies sampled	>Minimum quantifiable concentrations	>5 µg/l	>10 µg/l	>50 µg/l	>100 µg/l
466	99 (21.2 percent)	20 (4.3 percent)	12 (2.6 percent)	2 (0.4 percent)	0

TABLE 5.—SUMMARY OF STATE OCCURRENCE DATA<sup>1</sup>

Parameter	Number of States	Number of samples	Number of positives	Max (ppb)
Tetrachloroethylene	17	3,636	608	1,000
Trichloroethylene	19	4,228	624	510,000
1,1,1-Trichloroethane	16	3,330	715	2,250
1,2-Dichloroethylenes (cis and/or trans)	13	1,249	197	850
Carbon tetrachloride	15	2,646	303	1,000
Benzene	2	646	4	17
1,2-Dichloroethane	15	2,628	177	2,100
Vinyl chloride	9	1,793	126	330

<sup>1</sup> The State data are not a comprehensive data base. The data represent a collection of available data from various State agencies, are normally in response to contamination incidents, and are not considered to be statistically representative of national occurrence. In addition, not all the data are from public water systems since private and industrial wells are included in some cases.

### Occurrence and Exposure Assessment

As part of the basis for determining how to reduce human exposure to VOCs and determine the appropriate

regulatory actions, the occurrence data on VOCs are used in two principal areas. As input to the health risk assessment of the VOCs, an estimate is conducted of the number of individuals

in the United States exposed to various levels of the VOCs in drinking water from public water supplies. Information on Dietary intake and respiratory intake from ambient air is provided and is used to estimate the relative contributions of the three sources, particularly of drinking water, to the total dose received by individuals. While it is recognized that some individuals may be exposed to the VOCs from other sources, such as occupational settings or the use of particular consumer products, these analyses are limited to drinking water, food and air because these are the major exposure routes common to all individuals.

In addition to serving as an input to the health assessment, the exposure assessment supports EPA efforts to estimate the economic impact of the regulatory alternatives being considered. To aid in that effort, projections are provided to estimate the number of public water supplies of various water source and system size categories likely to have VOCs present, and the distribution of the VOCs levels in those water supplies.

There are approximately 60,000 public water supplies in the United States. These systems fall into two major categories according to water source (i.e., surface water and ground water) and for purposes of estimating the potential regulatory impact are divided into eleven size categories according to the number of individuals served.

Probability distributions for computing the expected number of systems with concentrations in specified intervals were examined and tested by statistical significance procedures. Ideally, separate probability distributions should be developed for each water source and system size category; however, the available data were too limited for this. Therefore, it was necessary to consolidate some of the size categories to have sufficient data for developing the probability distribution. Specifically, for ground water it was necessary to collapse the data into two size categories: less than 10,000 people served and 10,000 or more people served. For surface water, there were insufficient data for statistical analysis even when all size categories were combined. The delta distribution was found to be reasonable for the available data and was used for determining the probability of contamination at various levels within the two ground water size categories. For completing the national estimates for ground water, it was assumed that the probability distribution function established for a given consolidated size

category was directly applicable to each of the systems in a particular source/size category. Concentrations of VOCs within a given interval were calculated as the product of the probability associated with the interval and the total number of systems in that source/size category.

As noted previously, Table 2 summarizes the estimated population exposures at various levels of contamination. Details of the data base used in these projections for each of the VOC's can be found in the occurrence documents referenced in section VII.

#### *Human Health Considerations*

The underlying principles used to assess the potential health risks of exposure to chemicals are discussed in this section. Brief summaries of the toxicology of each selected VOC are also provided. A more detailed evaluation of the health effects of the chemicals is given in the individual health criteria documents referenced in section VII.

#### *Development of RMCLs for Non-carcinogens*

When appropriate data are available from human epidemiology or animal studies, determination of the "no known

or anticipated adverse effect levels" for RMCL purposes for toxic agents not considered to have carcinogenic potential is a relatively well-accepted procedure. "No effect" levels for chronic or lifetime periods of exposure including a margin of safety are referred to commonly as ADIs or Acceptable Daily Intakes. These ADI's are considered to be exposure levels which would be without significant risk to humans when received daily over a lifetime. For non-carcinogenic end-points of toxicity, it is assumed that an organism can tolerate and detoxify some amount of a toxic agent without ill effect up to a certain dose or threshold. As the threshold is exceeded, the extent of the response will be a function of the dose applied and the length of time exposed.

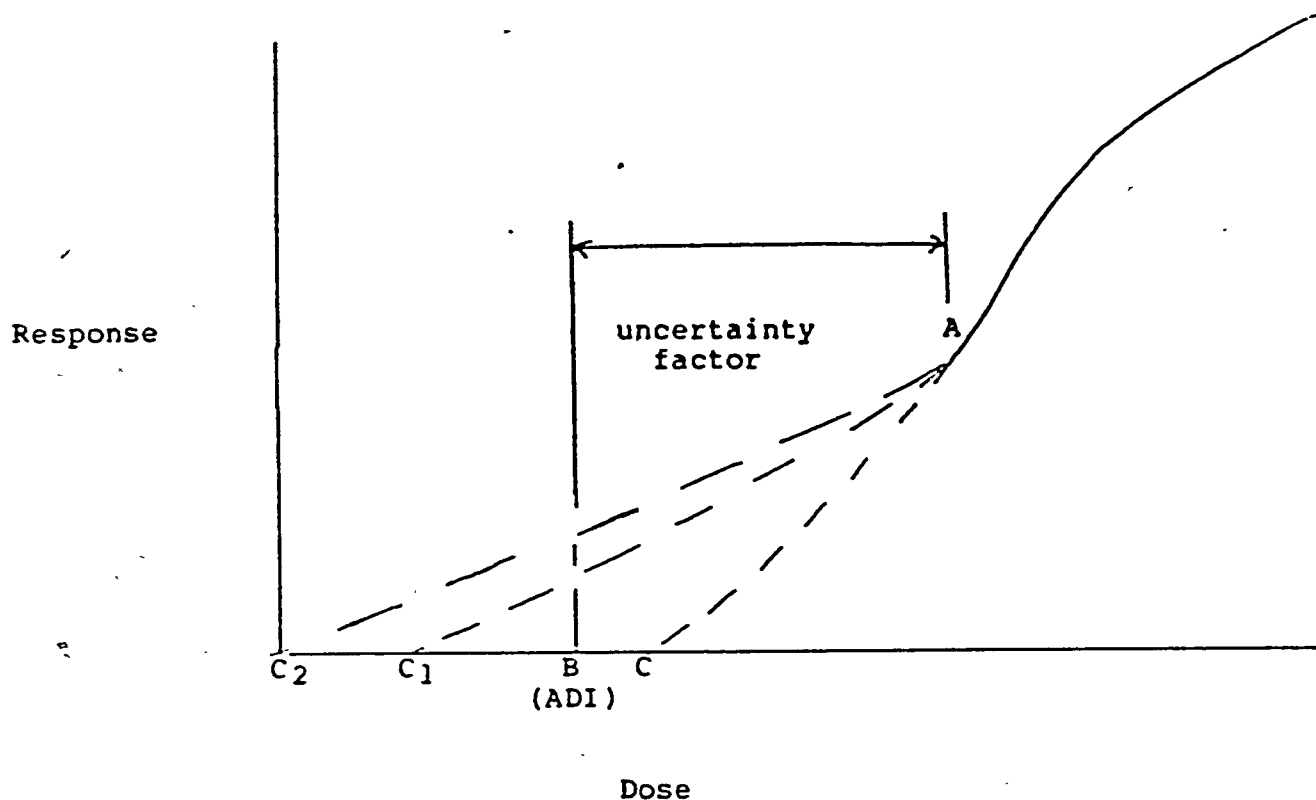
The intent of a toxicological analysis performed as part of the regulatory development process is to identify the highest no-observed-adverse-effect-level (NOAEL) based upon assessment of human or animal data (usually from animal experiments). To determine the ADI or "no effect" level, the NOAEL is divided by appropriate "uncertainty" or "safety" factors. This process makes accommodations for the extrapolation of animal data to the human, for the existence of weak or insufficient data

and for individual differences in human sensitivity to toxic agents, among other factors. General guidelines were provided by the NAS Safe Drinking Water Committee (*Drinking Water and Health*, Vol. I) which state that an uncertainty factor of 10 is used if there exist valid experimental results via ingestion in humans; an uncertainty factor of 100 is used if there exist valid experimental results on long-term feeding studies on experimental animals; and an uncertainty factor of 1000 is used if there exist inadequate animal data. Additional factors and variations also may be used if the circumstances dictate it.

Figure 1 illustrates a process by which an ADI for humans is computed. Figure 1 shows the lower end of a typical sigmoid-shaped dose-response curve as might be generated experimentally for a non-carcinogenic end-point of toxicity believed to have a threshold. The solid line represents the curve as experimentally-determined. Point A represents the highest NOAEL determined during the experiment. Point C represents the theoretical threshold dose at or above which an adverse effect might occur in the most sensitive case.

Figure 1

## Non-Carcinogenic Effect



- A: NOAEL (experimentally derived)
- B: ADI or "no effect" level
- C: Presumed threshold for adverse effect
- C<sub>1</sub>: Another possible presumed threshold for adverse effect
- C<sub>2</sub>: Non-threshold end point of toxicity

To derive the human "no effect" level or ADI based upon the experimentally-derived data displayed in Figure 1, the appropriate margin of safety (i.e., uncertainty factor) is applied to establish an acceptable level of exposure, depicted as Point B. The objective of applying the uncertainty factor is to make Point B fall below Point C. Thus, Point B would represent the ADI or "no effect" level with a margin of safety. It is possible that the actual dose response curve would result

in Point C<sub>1</sub> not detected in the experiment, in which case the calculated ADI (i.e., Point B) might not be below the actual threshold for an adverse effect.

There is suggestive scientific evidence available to postulate that thresholds do exist for non-carcinogenic end-points of toxicity. In the absence of irrefutable evidence, however, it remains theoretically possible that one or more non-carcinogenic end-points may not have a demonstrable threshold. The

dose-response curve for this case is depicted as the dashed line from Point A to the origin or C<sub>2</sub>. C<sub>2</sub> represents the threshold dose and the "no effect" level in this case would thus be zero.

Table 6 summarizes the suggested Adjusted Acceptable Daily Intakes (AADIs) for the VOCs based upon chronic toxicity data without consideration of the potential carcinogenic risk. These values were not used for developing proposed RMCLs



for chemicals considered to be potential carcinogens, but are provided to add some perspective on the chemical's total toxicity including potential non-carcinogenic end-points.

In addition, these values may have some practical application as guidance on the levels at which no adverse health effects would be expected to occur based upon non-carcinogenic data. This would be especially useful for substances considered to be "weak" carcinogens. Comment is requested on these values.

The AADI's were calculated by:

- Determining the highest No-Observed-Adverse Effect Level (NOAEL), or the lowest observed adverse effect level (LOAEL) in mg/kg body weight/day,
- Dividing by appropriate safety or uncertainty factor(s) (U.F.),
- Multiplying by the weight of an adult (70 kg), and
- Dividing by the amount of water consumed by an adult per day (2 liters/day). (This allocates the ADI totally to drinking water which would have to be modified to consider other routes of exposure when the RMCL or MCL is computed.) The formula for this calculation is as follows:

$$\frac{(\text{NOAEL in mg/kg/day}) (70 \text{ kg})}{\text{U.F.}(s) \times 2 \text{ liters/day}} = \text{AADI mg/l}$$

TABLE 6.—SUGGESTED ADJUSTED ACCEPTABLE DAILY INTAKE: VOC'S

(Does not consider carcinogenicity and excludes contributions from air and food)

Compound	AADI
Tetrachloroethylene .....	0.085 mg/l.
Trichloroethylene .....	0.26 mg/l.
Carbon tetrachloride .....	0.025 mg/l.
1,1,1-Trichloroethane .....	1.0 mg/l.
1,2-Dichloroethane .....	0.26 mg/l.
Vinyl chloride .....	0.06 mg/l.
Benzene .....	0.025 mg/l.
1,1-Dichloroethylene .....	0.35 mg/l.
p-Dichlorobenzene .....	3.75 mg/l.

The calculated AADIs above assume that the total exposure was from drinking water. Since normally exposure also comes from air and food, in addition to drinking water, and since drinking water is frequently a minor contributor to the total exposure, the RMCL or MCL should be modified to take into account the relative source contributions. The World Health Organization, in "Guidelines for Drinking Water Quality" (1983), assigned as little as 1 percent of the ADI to drinking water where the chemical was known to bioaccumulate to a high degree, while greater proportions were

assigned where the chemical was known to bioaccumulate to a lesser degree. In "Drinking Water and Health" (1977), the National Academy of Sciences provided projections of 1 percent and 20 percent as illustrations of drinking water contributions. In the National Interim Primary Drinking Water Regulations for six organic chemicals, drinking water was assumed to contribute 20 percent of the total daily intake.

Because of the wide range of environmental exposure distributions that would occur across urban and rural populations as well as because of age and occupationally-related differences, assumption of a 20 percent contribution from drinking water would be reasonably conservative and protective. Thus, in this case, if an AADI value for a non-carcinogen were to be the basis for an RMCL, it would be reduced by 80 percent to account for up to 20 percent contribution from drinking water to the total daily burden.

**Development of RMCLs for Carcinogens.** Evaluations of the toxicology of substances which may possess carcinogenic potential is a two-phase process. In the first phase, the toxicological data base for non-carcinogenic end-points of toxicity was evaluated in the same manner as described above for "non-carcinogens" (Table 6). In the second phase, assessment was made of the evidence of the carcinogenic potential (e.g., long-term bioassays in rodents and human epidemiology) as well as information which provides indirect evidence (e.g., mutagenicity and other short-term test results). This process is complex since the production of cancer probably is a multi-stage event, determined by a multiplicity of mechanisms, the nature of which remain, for the most part, hypothesized rather than identified.

To date, scientists have been unable to demonstrate experimentally a threshold of effect for "carcinogens," according to the 1977 report of the NAS Safe Drinking Water Committee. This leads to the assumption that since no threshold dose can be demonstrated for carcinogens, any exposure might represent some finite level of risk. Depending upon the potency of the specific carcinogen and the level, such a risk could be vanishingly small at very low doses.

Human epidemiology data are extremely limited in their ability to identify carcinogenic risks. Thus, animal experiments are conducted from which potential human risk is extrapolated. In the first volume of *Drinking Water and Health* (1977), the NAS Safe Drinking Water Committee provided principles to

serve as guidance to EPA when assessing the irreversible effects of long term exposure to non-threshold substances at low doses:

**Principle 1:** Effects in animals, properly qualified, are applicable to man.

**Principle 2:** Methods do not now exist to establish a threshold for long term effects of toxic agents.

**Principle 3:** The exposure of experimental animals to toxic agents in high doses is a necessary and valid method of discovering possible carcinogenic hazards in man.

**Principle 4:** Material should be assessed in terms of human risk, rather than "safe" or "unsafe".

Tumors appear spontaneously in experimental animals, at different rates and different sites depending upon the species and strain. It is unlikely that any increased tumor incidence could be detected following exposure of experimental animals to most carcinogens at dose levels occurring in the ambient environment. Very large numbers of animals would be required to distinguish between treated and control groups. It is possible, as was shown in the 24,000 animal "mega-mouse" study on 2-acetylaminofluorene at the National Center for Toxicology Research (NCTR), that a definitive answer would not necessarily be forthcoming at the low dose levels. Mathematical extrapolation still would be required to project human risk. Relying on this type of study for individual assessments is impractical because of its great expense and lingering scientific uncertainty.

In order to produce quantitative estimates, the assumption has been made that estimated excess cancer risk in humans at low dose levels can be extrapolated using various techniques from results observed in animals at high dose levels. Conventionally, designed carcinogenicity bioassay studies are conducted using both sexes of two species of test animals (usually rat and mouse) with each group of 50 animals exposed at the maximum tolerated dose or one-half the maximum tolerated dose. In addition to the possible existence of thresholds, other sources of uncertainty include: (1) heterogeneity of sensitivity in the exposed populations, (2) the pharmacokinetic behavior of the toxic agent in animals vs. the human and (3) mechanisms of action (i.e., whether the agent initiates the process or acts at a later stage). Classification of carcinogens into genotoxic vs. non-genotoxic carcinogens based on possible mechanisms has also been considered

but a scientific consensus has not been achieved. Fundamental changes in normal cells are the most probable basis for the conversion of normal cells to cancer cells; however, the nature of these changes and how they are brought about is still a scientific uncertainty. Many scientists believe that the most likely mechanism involves direct alteration of DNA by carcinogens. Many carcinogens are capable of altering DNA; chemically-induced alteration of DNA in germinal cells can also cause heritable changes, or mutations; thus, when a chemical shows a positive response in short-term mutagenicity tests, there is concern that it could also be a carcinogen. Scientists also generally believe that cancer results from a multi-stage process. However, these processes are not well understood and available evidence is insufficient to differentiate between carcinogens on the basis of mechanism (IARC, 1983). Therefore in this proposal EPA did not make a differentiation based upon potential mechanisms.

Thus, quantitative risk extrapolation procedures can provide only a rough projection of carcinogenic hazard because of the many unknown factors which enter into these estimates. Models using different assumptions may produce estimates ranging over several orders of magnitude. Since there is currently no way to demonstrate the accuracy of any model at low doses, this process is a subject of debate in the scientific community. However, in spite of these difficulties, quantitative risk estimation does provide the decision-maker one means of setting priorities among pollutants and some gauge of the potential seriousness of environmental hazards (see NCI Subcommittee report referenced in section VII).

EPA's Carcinogen Assessment Group employs a multi-stage model among various others to extrapolate potential excess cancer risk expected at doses of the chemical found in the environment from results in high dose animal studies (U.S. EPA, 1980). Equivalent human doses are established either on a body weight basis (mg/kg) such that the ratio of human to animal body weights is raised to the  $\frac{1}{3}$  power:

$$\left[ \frac{\text{human body weight}}{\text{animal body weight}} \right]^{\frac{1}{3}}$$

or on a body surface area comparison.

The multi-stage model is used for several reasons: (1) it is more systematic than the one-hit model, (2) it invokes

fewer arbitrary assumptions, (3) the assumption of low dose linearity is not essential in the use of the model and (4) it incorporates data from all of the dosage groups which are consistent with the multi-stage model. At the same time, it is conceptually consistent with the linear, non-threshold concept. With this model, CAG estimated the upper bound excess cancer risk rate at a specific exposure level for a 70 kg adult who consumes 2 liters of drinking water per day, every day over a 70 year lifespan.

These calculated risk rates have associated uncertainties. This uncertainty has many sources, including such uncertainties as the shape of the dose-response relationship at low doses, differences in responses between humans and laboratory animals, and the effects of artificial dosing regimens. A relatively minor source of uncertainty is statistical fluctuation that results from the finite sample size necessarily used in any experimental study. This is the only uncertainty that can be readily quantified; it is expressed in EPA's methodology by giving the upper-95% confidence limit of the observed response. Other confidence limits could also be calculated. (In more technically precise terms, the confidence limit is calculated on the coefficient of the linear term in the multi-stage model, assuming that all the statistical uncertainty is loaded on that term.)

Excess cancer risk rates also can be projected using variations within a specific model or other models, such as the one-hit model, the Weibull model, and logit and probit models. There exists no solid basis in the current understanding of the biological mechanisms involved in cancer to say that one model provides a better estimate of the true risk. The estimates of risk at low doses for these models can differ by several orders of magnitude. However, the linear non-threshold model usually has the best, even if limited, scientific biological basis of any of the currently available models for giving an upper limit estimate. The multi-stage model is presumed to usually give a conservative risk estimate (i.e., less likely to underestimate the actual risk) and thus would usually be consistent with a protective regulatory philosophy. A similar model was used by the NAS Safe Drinking Water Committee in the calculations provided to EPA in "Drinking Water and Health". The NDWAC recommended that the multi-stage model be used in the estimation of cancer risk associated with the VOCs. Various calculations using multi-stage models are presented in Table 7.

Shown along with the risk estimates in Table 7 is a qualification of the degree of evidence of carcinogenicity exhibited by the chemicals. The International Agency for Research on Cancer (IARC) provides guidance for categorizing chemicals having sufficient or limited evidence of carcinogenicity. In the IARC Monographs Supplement #1 the definition for sufficient evidence for carcinogenicity indicates that there need be an increased incidence of malignant tumors: (a) In multiple species or strains, or (b) in multiple experiments, or (c) to an unusual degree with regard to incidence, site or type of tumor, or age at onset. Sufficient evidence of *human* carcinogenicity indicates a causal association between exposure and human cancer. *Limited evidence* of carcinogenicity means that the data suggest a carcinogenic effect but are limited because: (a) The studies involve a single species, strain, or experiment; or (b) the experiments have an inadequate period of follow-up, poor survival, too few animals, or inadequate reporting; or (c) the neoplasms produced often occur spontaneously or are difficult to classify as malignant by histological criteria alone. Limited evidence of *human* carcinogenicity indicate a possible carcinogenic effect in humans, although the data are not sufficient to demonstrate a causal association. In general, although a single study may be indicative of a cause-effect relationship, confidence in inferring a causal association is increased when several independent studies are concordant in showing the association, when the association is strong, when there is a dose-response relationship, or when a reduction in exposure is followed by a reduction in the incidence of cancer.

The National Academy of Sciences in their report, *Drinking Water and Health*, Vol. I, (1977) classified chemical carcinogens into four categories: human carcinogens, suspected human carcinogens, animal carcinogens and suspected animal carcinogens.

Figure 2 presents a typical dose-response curve for animal experiments dealing with carcinogens. Usually only two data points are available either from an NTP bioassay or other chronic study. Points A<sub>1</sub> and A<sub>2</sub> represent the tumor incidence observed in the animal experiment at the high and low dose levels, respectively. Point B represents the mathematically extrapolated tumor incidence estimated to occur at an exposure level below those experimentally applied. This exposure level would correspond to a level likely to exist in the ambient environment (usually far below the experimental

dose). Identification of this point (B) and others along the extrapolated lower end of the curve then allows for the projection of an associated excess human cancer risk.

TABLE 7.—CANCER RISK ESTIMATES FOR VOCs; PROJECTED UPPER LIMIT LIFETIME CANCER RISKS

Compound	Projected upper limit† excess lifetime cancer risk	Concentration in drinking water (µg/l)			Quality of evidence**
		CAG	CAG *	NAS	
Trichloroethylene.....	10 <sup>-5</sup>	28	18	45	Limited (animal).
	10 <sup>-6</sup>	2.8	1.8	4.5	
Tetrachloroethylene.....	10 <sup>-5</sup>	10		35	Limited (animal).
	10 <sup>-6</sup>	1		3.5	
Carbon tetrachloride.....	10 <sup>-5</sup>	4	2.7	45	Sufficient (animal).
	10 <sup>-6</sup>	0.4	0.27	4.5	
1,2-Dichloroethane.....	10 <sup>-5</sup>	9.5	5.0	7.0	Sufficient (animal).
	10 <sup>-6</sup>	0.95	0.5	0.7	
Vinyl chloride ††.....	10 <sup>-5</sup>	20	0.15	10	Sufficient (human).
	10 <sup>-6</sup>	2	0.015	1	
1,1-Dichloroethylene.....	10 <sup>-5</sup>	2.3	2.4		Limited *** (animal).
	10 <sup>-6</sup>	0.23	0.24		
Benzene ††.....	10 <sup>-5</sup>	6.7			Sufficient (human).
	10 <sup>-6</sup>	0.67			
1,1,1-Trichloroethane (1).....	10 <sup>-5</sup>	217		168	Limited **** (animal).
	10 <sup>-6</sup>	21.7		16.8	
p-Dichlorobenzene.....					Inadequate.

† 95% confidence limit.

†† Vinyl chloride and benzene classified as human and suspected human carcinogens, respectively, by NSA. Both have been classified as human carcinogens by IARC (1982).

CAG=EPA Carcinogen Assessment Group; NAS=National Academy of Sciences Safe Drinking Water Committee; IARC=International Agency for Research on Cancer.

\* Recent draft updated calculations by CAG.

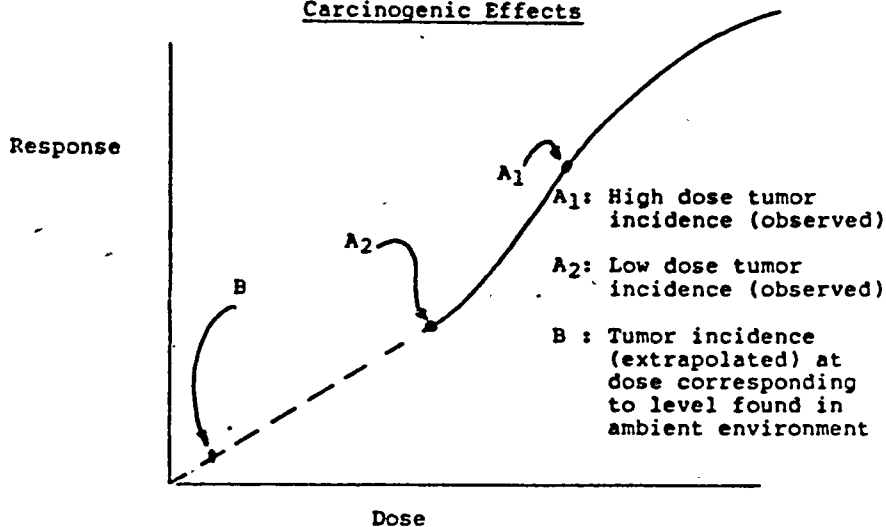
\*\* Based upon IARC unless otherwise noted. Indicates strength of evidence as an animal carcinogen.

\*\*\* Assessment made by EPA Carcinogen Assessment Group (CAG), and IARC.

\*\*\*\* Limited evidence as determined by the NAS Safe Drinking Water Committee (1983) and CAG (1983) from preliminary data.

(1) Not considered in this proposal as a carcinogen. Risk estimates are provided for perspective. Developing data may change this classification. See text.

Figure 2  
Carcinogenic Effects



#### Toxicology of VOCs

The following are short discussions of the toxicity of VOCs for which RMCLs are proposed. Detailed assessments are found in the draft health criteria documents that have been prepared for

each VOC and are provided for public comment; see section VII, References.

**Trichloroethylene.** Trichloroethylene has been shown to exhibit non-carcinogenic bioeffects at high (non-environmental) doses in humans and several other animal species, including

dogs, rabbits, guinea pigs, rats and mice. The major effects demonstrated are liver and kidney damage, central nervous system effects and depression in myocardial contractility.

In the calculation of a suggested, adjusted ADI for trichloroethylene, liver toxicity was used as the most sensitive end-point with respect to adverse health effects, not including the potential carcinogenic risk that may result from exposure to the chemical. A study in which rats were exposed to trichloroethylene through inhalation with resulting elevation of liver weights was used to calculate a suggested Adjusted ADI of 0.257 mg/l. This value was calculated based upon a minimal-effect-level of 300 mg/m<sup>3</sup> (55 ppm), since rats exposed to this dose level (5 days a week for 14 weeks) showed elevation of liver weights. An uncertainty factor of 1000 was applied due to the fact that an animal study, where the no-observed-adverse-effect-level was not identified, was used and because the study was only of 14 weeks duration. One hundred percent exposure from drinking water and a 70 kg adult consuming 2 liters of water per day were assumed in the calculations.

The NAS has not calculated a chronic non-carcinogenic Suggested No-Adverse-Response Level (equivalent to an Adjusted ADI) for trichloroethylene, because every long-term study, with the exception of the National Cancer Institute (NCI) carcinogenesis investigation, involves trichloroethylene administration by inhalation. The NCI bioassay did not determine a "no-effect level" and thus it was not considered appropriate for use in the derivation of a chronic, noncarcinogenic value.

Bacterial mutagenicity studies have shown trichloroethylene to be mutagenic in several systems, including metabolically activated *Salmonella typhimurium* and *E. coli* K12 strain; however, a later study reported trichloroethylene to be non-mutagenic in the Ames test system.

Commercial grade trichloroethylene was tested by the National Cancer Institute (NCI) (1976) and was reported to induce hepatocellular carcinomas in male and female mice by oral gavage. A repeat bioassay by the National Toxicology Program (1983) using purified trichloroethylene in corn oil found it to cause hepatocellular carcinomas in both sexes of mice, at a dose of 1,000 mg/kg per day, five days per week for 2 years, administered by gavage.

Trichloroethylene was not carcinogenic in female rats under the test conditions and the results in male rats were determined to be insufficient to make an

adequate evaluation of the carcinogenicity. The doses administered to the rat were 1,000 and 500 mg/kg/day.

The International Agency for Research on Cancer (IARC) has concluded that trichloroethylene has limited evidence of carcinogenicity, based upon experimental animal studies and inadequate evidence from available human data. This means that the data suggest a carcinogenic effect in one species, but lack of confirmation in others. The World Health Organization (1981) has recommended a tentative guideline value of 30 µg/l for trichloroethylene in drinking water.

EPA's Carcinogen Assessment Group has used the linearized non-threshold multi-stage model to calculate projected excess cancer risk estimates extrapolated from high dose animal studies. For trichloroethylene, these estimates were based upon the NCI bioassay data. Calculated risks corresponding to various doses are listed in Table 7.

**Tetrachloroethylene.** The principal non-carcinogenic effects of tetrachloroethylene in humans and other animals from both acute and longer-term exposures at relatively high (non-environmental) doses include central nervous system depression and fatty infiltration of the liver and kidney with concomitant changes in serum enzyme activity levels indicative of tissue damage.

A suggested adjusted ADI for tetrachloroethylene, considering adverse health effects other than the potential carcinogenic risk, was calculated based upon a series of studies in which rats were exposed by inhalation to tetrachloroethylene with effects observed on the central nervous system, immune system and certain blood components. The value of 0.085 mg/l was derived from these studies, based upon a no-observed-adverse-effect level of 10 mg/m<sup>3</sup> (1.5 ppm) and an uncertainty factor of 100. This uncertainty factor was considered appropriate for use with a no-observed-adverse effect level from an animal study with no comparable human data. Daily exposure of a 70 kg adult drinking 2 liters of water per day was assumed in the calculations.

Tetrachloroethylene in corn oil was tested for carcinogenic potential in mice and rats by gavage in the NCI Bioassay Program (1977). In these bioassays, it was shown that tetrachloroethylene increased the incidence of hepatocellular carcinomas in both sexes of mice, but not in rats. A dose rate of 531 mg/kg per day, 5 days/week in male mice and 386 mg/kg in female mice resulted in a tumor incidence rate of 65

percent and 40 percent, respectively. Because of an excessive dose related mortality in the gavage experiment and low dose level in the inhalation study, no conclusion can be made about the carcinogenicity of tetrachloroethylene in rats. Data from the recent gavage study has been withdrawn for the time being pending the results of an indepth audit by the NTP due to unresolved problems with the study as conducted.

The majority of mutagenicity studies on tetrachloroethylene were negative. Two positive studies have been reported; however, the purity of the tetrachloroethylene was questioned in these cases.

The IARC has concluded that tetrachloroethylene has limited evidence of carcinogenicity in animals and inadequate evidence from available human data. This means that the data suggest a carcinogenic effect in one species, but lack confirmation in others. The World Health Organization has recommended a tentative guideline value of 10 µg/l for tetrachloroethylene in drinking water.

EPA's Carcinogen Assessment Group has used the linearized multi-state model to calculate projected excess cancer risk estimates extrapolated from high-dose animal studies. For tetrachloroethylene, these estimates were based upon the 1977 NCI bioassay in mice. Calculated risks corresponding to various doses are listed in Table 7.

**1,1,1-Trichloroethane.** The principal toxic effects of 1,1,1-trichloroethane from which (non-environmental) dose exposure in animals and humans are depression of the central nervous system, increase in liver weight and cardiovascular changes.

Liver toxicity was used as the most sensitive end-point with respect to adverse health effects, not including the potential carcinogenic risk, in the calculation of an adjusted ADI for 1,1,1-trichloroethane. An inhalation study which examined exposure of mice to 1,1,1-trichloroethane was used to calculate a suggested Adjusted ADI of 1.0 mg/l. This study demonstrated changes in the livers of the mice at various dose levels.

Two animal bioassays by the National Cancer Institute (NCI) have been completed in rats and mice (1977; 1933). In the earlier bioassay, rats and mice were treated with 1,1,1-trichloroethane in corn oil by gavage. Because only 3 percent of the animals survived to the end of the experiment, due in part to chronic murine pneumonia which was determined to be the most probable cause of the high incidence of natural deaths among the animals, it was concluded that carcinogenicity could not

be determined from this study. A repeat carcinogenesis bioassay of 1,1,1-trichloroethane was conducted in which doses of 3,000 or 1,500 mg/kg were administered by gavage to both sexes of mice, and rates were given doses of 750 or 375 mg/kg. In the preliminary report of this study, 1,1,1-trichloroethane was carcinogenic in both male and female mice showing an increased incidence of hepatocellular carcinomas but not in rats; however, these initial results have been questioned.

1,1,1-Trichloroethane has been tested for mutagenicity in several test systems. Both negative and positive results were reported in mutagenicity tests in various *Salmonella typhimurium* strains, and 1,1,1-trichloroethane was not shown to be mutagenic in studies using yeast as an indicator organism.

EPA's Carcinogen Assessment group has used the linearized non-threshold multi-stage model to calculate preliminary excess cancer risk estimates extrapolated from the preliminary reported incidence of hepatocellular carcinomas in female mice in the study cited above. Calculated risks corresponding to various doses are listed in Table 7.

Similar calculations were made by the NAS (*Drinking Water and Health*, Vol. V) except that the average of the results in both male and female mice were used as the basis.

The latest bioassay data, on 1,1,1-trichloroethane is currently undergoing audit by the NTP and a final report has not been issued. Therefore this proposal will use the noncancer inhalation data as the basis for the proposed RMCL. This notice will be amended if the final NTP report determines that 1,1,1-trichloroethane was carcinogenic under the conditions of the tests.

**Carbon Tetrachloride.** Carbon tetrachloride (CCl<sub>4</sub>) has been shown to exhibit non-carcinogenic effects in humans and animals following acute and chronic exposures. The principal effects seen at high doses are liver changes such as fatty liver with centrilobular necrosis developing if exposure is continued.

A chronic AADI for CCl<sub>4</sub> of 0.025 mg/l was calculated from a recent report of a study (Bruckner, et al., 1933) which has not yet been published or peer reviewed at this juncture.

Rats weighing 200-500 g were randomly divided into groups of 15 to 16 animals each. The animals were given by gavage 0, 1, 10, 33 mg CCl<sub>4</sub>/kg bw (in corn oil). The animals were dosed on a daily basis, 5 times weekly, for a total period of 12 weeks. Blood samples were obtained from alternate animals at the

following intervals: 2, 4, 6, 8, 10 and 12 weeks post-treatment. The serum was analyzed for BUN, GPT, SDH and OCT. At 1 mg/kg, there were no significant biochemical/histopathological changes. SDH, the most sensitive index of hepatotoxicity, was elevated ( $p < 0.05$ ) in rats receiving 10 mg/kg for 12 weeks. Also, these rats exhibited mild centrilobular vacuolization. At 33 mg/kg, levels of GPT, SDH, and OCT were increased ( $p < 0.01$ ) and marked hepatic lesions were apparent. There was no evidence that  $\text{CCl}_4$  was nephrotoxic.

Comments on the experimental protocols and interpretations of the data are requested.

Carbon tetrachloride has been shown to be carcinogenic in rats, mice and hamsters through oral administration. In the NCI (1976) bioassay for trichloroethylene, carbon tetrachloride was used as the positive control. Carbon tetrachloride was administered in corn oil by gavage to rats at two dose levels: 47 and 94 mg/kg for males and 80 and 159 mg/kg for females. In mice, the chemical was administered at 1,250 and 2,550 mg/kg. Carbon tetrachloride was determined to increase carcinomas of the liver in both rats and mice in this bioassay.

Carbon tetrachloride has not been shown to be mutagenic in any of the reported Salmonella (Ames) assays. However, mutagenic activity associated with carbon tetrachloride has been observed in a test system using the yeast *Saccharomyces cerevisiae*.

The IARC has concluded that sufficient evidence of carcinogenicity in animals exists for carbon tetrachloride. The NCI has also identified carbon tetrachloride as an animal carcinogen and has used it as a positive control in several bioassays. The World Health Organization (1981) has recommended a tentative guideline value of 3  $\mu\text{g/l}$  for carbon tetrachloride in drinking water.

EPA's Carcinogen Assessment Group has used the linearized non-threshold multi-stage model to calculate projected excess cancer risk estimates extrapolated from high dose animal studies. For carbon tetrachloride, the latest draft estimates were based upon the geometric mean of the four cancer studies. Calculated risks corresponding to various doses are listed in Table 7.

**1,2-Dichloroethane.** The toxic effects of 1,2-dichloroethane in humans and other animals from both acute and longer-term exposures at relatively high levels include central nervous system depression, liver and kidney damage, gastrointestinal distress, adrenal and pulmonary effects and circulatory disturbances.

A series of inhalation studies in which a variety of animal species were exposed for up to 8 months to 1,2-dichloroethane were used to calculate a suggested Adjusted ADI for 1,2-dichloroethane. The most sensitive endpoints, not including the potential carcinogenic risk, identified in these studies were pulmonary congestion, diffused myocarditis, and fatty degeneration of the liver, kidney, adrenal and heart. A value of 0.260 mg/l was calculated, based upon a no-observed-adverse-effect-level of 405  $\text{mg/m}^3$  (100 ppm). A variety of animal species exposed to this dose level for 6 to 7 hours/day, 5 days/week yielded no adverse effects as measured by general appearance, behavior, mortality rates, growth rates, organ function and blood chemistry. An uncertainty factor of 1000 was used to account for an animal study with no equivalent human data, and for the use of a study of less than lifetime exposure. One hundred percent exposure from drinking water and a 70 kg adult consuming 2 liters of water per day were assumed in the calculations.

1,2-Dichloroethane has been shown to significantly increase tumor incidences at several sites in both rats and mice when administered by gavage, but not following inhalation exposure. In the NCI bioassay, doses of 47 or 95 mg/kg in corn oil administered by gavage to rats and 97 or 195 mg/kg given to male mice and 149 or 299 mg/kg given to female mice were shown to increase the incidence of several types of tumors. 1,2-Dichloroethane has also been shown to be mutagenic in a number of biological systems, including *Drosophila melanogaster*, *Salmonella typhimurium* and *E. coli*.

The IARC has concluded that sufficient evidence of carcinogenicity in animals exists for 1,2-dichloroethane. The World Health Organization (1981) has recommended a tentative guideline value of 10  $\mu\text{g/l}$  for 1,2-dichloroethane in drinking water.

EPA's Carcinogen Assessment Group has used the linearized non-threshold multi-stage model to calculate projected excess cancer risk estimates extrapolated from high-dose animal studies. For 1,2-dichloroethane, these estimates were based upon the NCI bioassay data. Calculated risks corresponding to various doses are listed in Table 7.

**Vinyl chloride.** Acute and chronic toxicity studies with vinyl chloride have shown the major non-carcinogenic effects resulting from high dose exposures to be congestion and edema of the lungs and hyperemia of the kidney and liver. Other non-carcinogenic effects have been noted, including disturbances

of the central nervous system, pulmonary insufficiency, cardiovascular manifestations, gastrointestinal symptoms and acroosteolysis.

A suggested Adjusted ADI for vinyl chloride of 0.06 mg/l considering adverse health effects not including carcinogenic risk, was calculated based upon an oral toxicity study in rats in which a variety of carcinogenic and non-carcinogenic effects were observed at all dose levels. A minimal-effect-level of 1.7 mg/kg was used in the calculations, as histopathological changes in the liver including clear-cell foci, extensive necrosis, cysts and liver-cell polymorphism were observed at this dose level. An uncertainty factor of 1000 was applied to account for an animal study where the no-observed-adverse-effect level was not identified. One hundred percent exposure from drinking water and a 70 kg adult consuming 2 liters of water per day were assumed in the calculations.

Vinyl chloride has been shown to have carcinogenic effects in animals and humans. Animal studies have demonstrated the production of liver angiosarcomas, mammary carcinomas, pulmonary angiosarcomas and other tumor types in rats following oral exposure and carcinogenic effects in mice, rats and hamsters by inhalation exposure have been reported. In humans, studies have linked vinyl chloride with angiosarcoma of the liver and other forms of neoplasm. The IARC has concluded that sufficient evidence of carcinogenicity exists for vinyl chloride from animal studies and human studies, and that vinyl chloride should be considered a human carcinogen with target organs of the liver, brain, lungs and haemo-lymphopoietic system.

Vinyl chloride was shown to be mutagenic in the test system using metabolically activated *Salmonella typhimurium*, *E. coli* K12 strain, in germ cells of *Drosophila* and Chinese hamster V79 cells.

EPA's carcinogen assessment Group has used the linearized non-threshold multi-stage model to calculate projected excess cancer estimates extrapolated from high dose animal studies. For vinyl chloride, these estimates were based upon an inhalation study in rats in which vinyl chloride concentrations ranging from 50 to 10,000 ppm resulted in a total tumor incidence rate of 17 percent to 62 percent, respectively. The NAS has also used the multi-stage model to calculate excess cancer risk values. They based their estimates upon the same study as did CAG (Maltoni, *et al.*, 1975), except ingestion data instead of inhalation data were used. The NAS

risk estimation used ingestion exposure and thus may be more appropriate for estimating risks from drinking water exposure. Calculated risks corresponding to various doses are listed in Table 7. In addition, data from a recent draft CAG calculation using an ingestion study in rats (EPA, 1984) are also included for comment.

**Benzene.** The toxic effects of benzene in humans and other animals include central nervous system effects, hematological effects as well as immunological effects. The toxicity of benzene to the hematopoietic system of humans experiencing chronic exposure to benzene is well documented. Repeated exposure effects include myelocytic anemia, thrombocytopenia and leukemia. In laboratory animals, leukopenia is the most commonly observed effect of chronic benzene exposure.

A suggested Adjusted ADI for benzene, considering adverse health effects not including carcinogenic risk, was calculated based upon data from a gavage study in rats in which leucopenia was observed at specific dose levels. A value of 0.025 mg/l was calculated using a no-observed-adverse-effect level of 1 mg/kg and an uncertainty factor of 1000. This uncertainty factor was used to account for an animal study with no equivalent human data, and for the use of a study of less than lifetime exposure. One hundred percent exposure from drinking water and a 70 kg adult consuming 2 liters of water per day were assumed in the calculations.

Benzene has been shown to be carcinogenic in Sprague-Dawley rats, causing tumors at dose levels of 50 mg/kg and 250 mg/kg. An increase in zymbal gland carcinomas, leukemias and mammary carcinomas in rats has also been observed. Toxic effects on bone marrow cells of rats and other laboratory animals from benzene exposure include changes in chromosome number and chromosome breakage. These types of effects have also been observed in humans.

EPA's Carcinogen Assessment group has used the linearized non-threshold multi-stage model to calculate projected excess cancer estimates extrapolated from high-dose animal and human studies. For benzene, these estimates were based upon an epidemiologic study of workers exposed to benzene vapors on their jobs. Calculated risks corresponding to various doses are listed in Table 7.

**1,1-Dichloroethylene.** 1,1-Dichloroethylene has been shown to cause liver and kidney injury in animals from high dose exposures. Liver damage in rats, mice and guinea pigs has been

documented, along with renal toxicity, CNS depression and sensitization of the heart.

An Adjusted ADI of 350 µg/l for 1,1-dichloroethylene considering adverse health effects not including the potential carcinogenic risk was calculated based upon toxic liver effects using a NOAEL of 10 mg/kg and 100 percent exposure from drinking water.

The NAS (1983) has calculated a chronic, suggested-no-adverse-response level (equivalent to an adjusted ADI) of 0.1 mg/l based upon non-carcinogenic effects only for 1,1-dichloroethylene, from data in the National Toxicology Program bioassay (1982) in rats and mice. A no-observed-adverse-effect level of 2 mg/kg was used and an uncertainty factor of 100, and complete absorption from the GI tract. Twenty percent exposure from drinking water and a 70 kg adult consuming 2 liters of water per day were assumed in the calculations, along with conversions from a 5 d/week dosing regime to a 7 d/week exposure.

1,1-Dichloroethylene was found to be mutagenic with microsomal activation in *Salmonella typhimurium* and *E. coli* test systems. However, mutagenicity was not observed with V79 Chinese hamster cells or in dominant lethal studies in mice and rats.

1,1-Dichloroethylene was shown to produce kidney adenocarcinomas in mice and rats in one study (Maltoni, 1977). However, most of the other studies have failed to demonstrate significant carcinogenic activity of the chemical. A study by the National Toxicology Program (1982) examined 1,1-dichloroethylene exposures of 1 mg/kg or 5 mg/kg 5 times per week in rats and 2 mg/kg or 10 mg/kg 5 times per week in mice. In this bioassay, there was no evidence that 1,1-dichloroethylene was carcinogenic for either the rats or the mice. However, there was some question as to whether the maximum tolerated dose had been used in this study. The NAS (1983) has concluded that information on 1,1-dichloroethylene is not sufficient to reach a definite conclusion on the carcinogenicity of the compound.

EPA's Carcinogen Assessment Group found 1,1-dichloroethylene to have limited evidence of carcinogenicity in animals. They have used the linearized, non-threshold, multi-stage model to calculate projected excess cancer estimates extrapolated from high-dose animal studies. For 1,1-dichloroethylene, these estimates were based on results of inhalation studies in mice and rats. Calculated risks corresponding to various doses are listed in Table 7. EPA's SAB has recently questioned

validity of this study result. This tentative classification of 1,1-DCE as a carcinogen will be reexamined during the comment period. Comment is solicited in this regard.

**p-Dichlorobenzene.** Non-carcinogenic adverse effects observed in animal studies include liver and kidney damage, porphyria, pulmonary edema and congestion and splenic weight changes. In humans, exposure to fairly high concentrations of the dichlorobenzenes has been reported to result in anorexia, nausea, yellow atrophy of the liver and blood dyscrasias.

A suggested Adjusted ADI of 3.75 mg/l for p-dichlorobenzene considering adverse health effects other than carcinogenic potential was calculated. This value was based upon the rat subchronic gavage study which served as the dose range-finding study for the NTP bioassay. The ADI was based upon a NOAEL of 150 mg/kg/day. Uncertainty factors of 100 and 10 were used to account interspecies extrapolation and use of data from an exposure duration significantly less than lifetime.

p-Dichlorobenzene has been shown to induce abnormal mitotic division in higher plants. The compound was not seen to be mutagenic when tested in the *Salmonella typhimurium* or *E. coli* WP2 systems, and no evidence of mutagenicity in animals has been reported to date.

In June 1980, a carcinogenesis bioassay of p-dichlorobenzene in mice and rats was undertaken by the National Toxicology Program. Doses of 200 mg/kg or 600 mg/kg were administered by gavage to both sexes of mice and to female rats. Male rats were given 150 or 300 mg/kg. The results of this study have not yet been released.

## V. RMCL Development Rationale

The ANPRM requested public comment on the appropriate approach to deal with VOCs in drinking water, specifically requesting consideration of the following:

- What approach should be followed under the SDWA to reduce human exposure to VOCs?
- For which VOCs should regulations be set?
- What approach should be followed in setting RMCLs for suspected carcinogens?

Each of these issues is discussed below in regard to the rationale used by the Agency in development of this proposal and the Agency's consideration of the public comments, the



requirements of the SDWA, and the available scientific information.

#### *VOCs: Regulatory Approach*

**Alternative approaches.** The major alternatives considered for limiting human exposure to VOCs in drinking water as discussed in 47 FR 9350 are provided below.

(1) *No federal regulations. Provision of health advisories for State action as appropriate.* Health advisories and advice on treatment and analytical methods are currently being provided to States and public water systems for use in dealing with incidents of VOC contamination.

Each State would design its own control strategies to address incidents of contamination on a case-by-case basis or state-wide. Health advisories were developed to deal primarily with isolated incidents of short-term contamination in lieu of standards and not as a substitute for MCLs. Experience has shown that, as would be expected, States have interpreted and applied the health advisories in different ways. Some States have applied the health advisories as if they were standards or considered adopting them as State standards.

(2) *Set federal monitoring regulations and provide health advisories for State action as appropriate.* This option would set monitoring requirements for VOCs under section 1445 and provide health advisories for State action as needed. This alternative would result in all public water systems determining if they have VOCs in their drinking water and could be proposed and promulgated in a shorter period of time than alternative 3. Different States would probably adopt different control options and action levels.

(3) *Set Primary Drinking Water Regulations for certain of the VOCs.* This option would set RMCLs, MCLs, monitoring and reporting requirements for a number of VOCs and would result in consistent, nation-wide controls on VOCs.

**Proposed regulatory approach.** The SDWA authorizes EPA to establish RMCLs for "each contaminant which, in [the Administrator's] judgment \* \* \* may have any adverse effect on the health of persons" section 1412(b)(1)(B). A primary drinking water regulation is to be established for each contaminant for which an RMCL is established. Section 1412(b)(2). In implementing this broad statutory mandate, EPA is considering the following factors to select contaminants appropriate for regulations. These include:

- Whether the frequency of occurrence and the concentrations

detected in drinking water and the extent of the population exposed warrant establishment of national primary drinking water regulations.

- Whether the available toxicology data are sufficient to warrant a determination that adverse effects may be known or anticipated at levels found in drinking water.

Notwithstanding these factors, EPA feels that primary drinking water regulations may be appropriate in some instances for substances which to date have not been found at high concentrations or frequencies in drinking water, but where in the Administrator's judgement it would be appropriate to anticipate possible future potential for drinking water contamination from spills or improper disposal.

Other factors that must be considered as part of the decision on the type of regulation (MCL or treatment requirement) include:

- Whether monitoring is technically and economically feasible.
- Whether treatment technologies are available to reduce the contaminants to appropriate levels.

In addition, some guidance was provided in the legislative history to the SDWA Senate Report on possible candidates for Revised Regulations. Contaminants listed in the following sources were expected to be considered for regulation.

- World Health Organization; "Maximum Permissible Concentrations of Harmful Substances in the Water of Water Courses used for Hygienic and Domestic Purposes (1970)."

- World Health Organization; "European Standards for Drinking Water," 2nd edition, Revised, Geneva (1970).

- National Institute of Occupational Safety and Health annual list of toxic substances,

- Toxic Substances listed under section 307 of the Federal Water Pollution Control Act.

Information provided by the NAS in the Drinking Water and Health series is an additional source.

While numerous contaminants are listed in these sources, this proposal in Phase I of EPA's National Primary Drinking Water Regulations addresses a limited number of contaminants in the VOC category found in drinking water. Because of EPA's desire to avoid delay in developing regulations for certain VOCs that have been detected in ground waters and the need to prioritize the expenditure of limited resources, only nine VOCs are addressed in this initial proposal. Other VOCs for which sufficient occurrence and health effects

information become available will be addressed in Phase II and later iterations of the National Primary Drinking Water Regulations along with other contaminants. Specific VOCs considered in this proposal are those that have appeared to be the highest priority for regulation based upon occurrence, health risk considerations and available data.

Several VOCs have been found across the country in numerous drinking water supplies. In the GWSS, 21 percent of systems had at least one VOC detected. EPA has concluded that sufficient health effects data are available to cause concern about potential human exposure to certain VOCs via drinking water. Various of the VOCs are suspected or proven mammalian carcinogens, some are known human carcinogens, some are active in certain mutagenic test systems and exposure to certain of the VOCs at high doses has shown other non-carcinogenic toxic effects. EPA recognizes that interpretation of health risk data raises numerous scientific issues. However, drawing upon the conclusions/recommendations of the NAS, IARC and the NDWAC, EPA believes that the data adequately demonstrate concern such that RMCLs and primary drinking water regulations are warranted. Thus, EPA has determined that human exposure to certain VOCs via drinking water may have an "adverse effect upon the health of persons" thereby warranting regulatory action.

#### *Selection of VOCs for Regulation*

This section provides a discussion of the factors used to select the specific contaminants for which RMCLs are proposed at this time. VOCs that were not included in this proposal will be reconsidered in Phase II of the Revised Regulations as additional data become available.

**Factors considered.** A number of factors were considered in determining which VOCs should be regulated; however, there is no established formula or set criteria for these determinations. The SDWA states that regulations should be set for contaminants that the Administrator determines "may have any adverse effect upon the health of persons" but little additional guidance was provided. Obviously, it is impossible to consider for regulation every chemical that may appear in drinking water and that theoretically may adversely affect health in some remote circumstances. What is needed is some prioritization of contaminants in drinking water so that a reasonable



number of contaminants of sufficient concern can be addressed in regulations.

To best employ its resources, EPA must select contaminants for regulation based upon considerations that will advance the goals of the Act to assure the safety of drinking water. EPA believes that the most relevant criteria are the: (1) Analytical ability to detect a contaminant in drinking water, (2) the frequency and level of occurrence and population exposed, and (3) potential health aspects of the contaminants. In addition EPA considers regulation when there are sufficient incidents or contamination potential such that national guidance in the form of a Primary Drinking Water Regulation is desirable to assist States and public water systems which must determine appropriate responses.

**Analytical methods.** Analytical methods must be available such that the presence of the chemicals in water can be validly determined. This factor is an important part in determining whether the substance can be regulated and whether an MCL or a treatment technique regulation should be promulgated.

**National or limited significance.** Consideration of occurrence data encompasses both the frequency of occurrence, the level of occurrence and the extent of the population exposed. The occurrence data allow EPA to determine whether contamination of drinking water represents isolated or localized incidents of contamination more appropriately dealt with by States, or whether contamination has occurred or has the potential for occurring in numerous locations across the country involving a sufficient number of water supplies and population exposed to warrant action under the Safe Drinking Water Act. In the ANPRM for Phase II of the NPDWR, 48 FR 45502, *et seq.*, EPA described a categorization system for differentiation between widespread and limited contamination potential.

**Health effects.** Consideration of the potential health effects of a chemical encompasses the: (1) Suitability of the available data for assessing the toxicology of the chemical, and (2) the possibility of human health concern from exposure from drinking water. When it is possible scientifically, section 1412(e)(3) of the SDWA also requires consideration of the impact of the following:

(A) The existence of groups or individuals in the population which are more susceptible to adverse effects than the normal healthy adult.

(B) The exposure to contaminants in other media than drinking water (including exposures in food, in the ambient air and in

occupational settings) and the resulting body burden of contaminants.

(C) Synergistic effects resulting from exposure to or interaction by two or more contaminants.

(D) The contaminant exposure and body burden levels which alter physiological function or structure in a manner reasonably suspected of increasing the risk of illness.

These factors were addressed in assessing the potential health effects of each of the VOCs and are discussed in each of the health effects criteria documents as referenced in section VII. However, applicable data are seldom available for any of these factors except B (to a limited extent) which is addressed in both the occurrence and health effects documents.

**Other considerations.** Additional factors considered in determining which VOCs should be regulated and how are discussed below.

- One approach that might be considered would be to set RMCLs by category, i.e., the same RMCL for each VOC or subcategories of VOCs. In effect this is being proposed for the category determined to be non-threshold toxicants. However, a categorical RMCL for non-carcinogenic VOCs is not scientifically supportable due to differing relative toxicities of individual substances (different thresholds) and different toxic endpoints.

- **Strength of evidence.** Pertaining to either the extent of contamination or to the potential health risks of exposure, the amount of available data of sufficient quality on a certain chemical was considered. For example:

- A chemical proven to be a human carcinogen, even though occurring relatively infrequently in drinking water supplies might be appropriate for regulation, e.g., vinyl chloride and benzene.

- A chemical occurring at a higher frequency in drinking water supplies but for which the strength of evidence on potential health risks was weaker could be appropriate for regulation, e.g., trichloroethylene, tetrachloroethylene, carbon tetrachloride, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,2-dichloroethane.

- **National guidance to address incidents of contamination.** Regulations provide a benchmark for potential action by State and local officials in evaluating incidents of contamination. In certain cases, this factor may be a major consideration in determining if regulations are appropriate. For example, regulations would be appropriate for a chemical that occurs but at levels normally below those associated with potential health risks,

e.g., p-dichlorobenzene and 1,1,1-trichloroethane. The MCL would provide guidance that no action was necessary for these systems with less than that level; without regulations, these types of situations have met widely varying responses by States and public water systems. Regulations can provide a basis for rational and uniform responses to incidents of contamination.

- **Potential impact.** The potential impact of setting regulations can be considered in a general manner; however, this factor is primarily considered during establishment of MCLs. This evaluation considers potential burdens including such factors as the affordability of treatment systems, the technical feasibility of meeting MCLs, and other possible impacts such as monitoring and reporting.

The results of setting regulations for VOCs will vary widely from no impact to installation of treatment systems for reduction of VOCs. Recognizing that the great majority of public water systems do not have VOCs in the drinking water, the only burden on these systems would be monitoring and reporting. These burdens could be minimized through flexible monitoring requirements (see 48 FR 45502) that would provide states with authority to determine appropriate requirements beyond the national minimum. In addition, the VOCs are somewhat unique in the sense that several of them can be analyzed for in a single analytical procedure.

- **Other factors.** Surrogate parameters or aggregate parameters may be needed to take into account other potential effects not considered in setting RMCLs and MCLs for individual chemicals, such as possible additive or synergistic risks of simultaneous exposure to more than one VOC.

**Proposed VOCs.** The ANPRM listed fourteen VOCs being considered for regulations. Detailed occurrence and health effects information were provided for six of the fourteen VOCs.

Since the ANPRM was published, EPA completed the Ground Water Supply Survey (GWSS) in which twenty-nine VOCs were looked for in each sample using the "purge and trap" analytical procedure employing gas chromatography (Method 502.1 and Method 503.1, U.S. EPA, Environmental Monitoring and Support Laboratory). As shown in Table 1, not all of the ANPRM list of 14 VOCs were detected in the GWSS.

Based upon the above considerations, public comments and recommendations of the NDWAC and other information, EPA has concluded that these chemicals

"may have an adverse effect upon the health of persons" and that RMCLs and primary drinking water regulations under Section 1412 should be proposed at this time. They are:

trichloroethylene  
tetrachloroethylene  
1,1,1-trichloroethane  
carbon tetrachloride  
1,2-dichloroethane  
benzene  
vinyl chloride  
p-dichlorobenzene  
1,1-dichloroethylene

As presented previously, the NDWAC recommended developing regulations for the first five of the above nine VOCs. Their rationale was based upon an evaluation of the available occurrence and health effects data for each of the VOCs. The NDWAC evaluated the information in September 1982. Since that time additional data have become available and the Agency has concluded that four additional VOCs warrant regulation.

The background occurrence and health effects data used as the basis for determining which VOCs warranted regulations is summarized below.

**Trichloroethylene.** Occurrence: GWSS (Random): 6.4%; max: 78 µg/l; median: 1.0 µg/l. GWSS (Non-random): 12.7%; max: 130 µg/l; median: 1.4 µg/l. State Data: 624 positives/4228 sampled, max: 510,000 µg/l.

Health Effects: Non-carcinogenic effects (at high doses): liver and kidney damage, central nervous system effects, depression in myocardial contractility. Carcinogenic effects: mutagenic in some test systems; carcinogenic in NCI test: mice. Limited evidence.

**Tetrachloroethylene.** Occurrence: GWSS (Random): 7.3%; max: 23 µg/l; median: 0.5 µg/l. GWSS (Non-random): 9.4%; max: 69 µg/l; median: 0.7 µg/l. State Data: 628 positive/3636 sampled, max: 1,000 µg/l.

Health Effects: Non-carcinogenic effects (at high doses): central nervous system depression, fatty infiltration of liver and kidney, tissue damage. Carcinogenic effects: carcinogenic in NCI test: mice; limited evidence.

**1,1,1-Trichloroethane.** Occurrence: GWSS (Random): 5.8%; max: 18 µg/l; median: 0.8 µg/l. GWSS (Non-random): 10.6%; max: 21 µg/l; median: 1.0 µg/l. State Data: 715 positive/3330 sampled, max: 2,250 µg/l.

Health Effects: Non-carcinogenic effects (at high doses): central nervous system depression, increase in liver weight, cardiovascular changes. Carcinogenic effects: carcinogenic in preliminary report from NTP test: mice;

limited evidence. This report is currently being evaluated.

**Carbon tetrachloride.** Occurrence (may be a contaminant in chlorine) GWSS (Random): 3.2% max: 16 µg/l; median: 0.4 µg/l. GWSS (Non-random): 3.1%; max: 15 µg/l; median: 0.5 µg/l. State Data: 368 positive/2646 sampled, max: 1,200 µg/l.

Health Effects: Non-carcinogenic effects: liver effects such as fatty liver with centrilobular necrosis. Carcinogenic effects: mutagenic in some test systems; carcinogenic in NCI test: mice, rats, hamsters; sufficient evidence.

**1,2-Dichloroethane.** Occurrence: GWSS (Random): 0.6%; max: 1.0 µg/l; median: 0.5 µg/l. GWSS (Non-random): 1.5%; max: 10 µg/l; median: 2.5 µg/l. State Data: 177 positive/1793 sampled, max: 2,100 µg/l.

Health Effects: Non-carcinogenic (at high doses): central nervous system depression, liver and kidney change, gastro-intestinal distress, adrenal and pulmonary effects, circulatory disturbances. Carcinogenic effects: mutagenic in most test systems; carcinogenic in NCI test: mice, rats; sufficient evidence.

**Vinyl chloride.** Occurrence: GWSS (Random): 0.2%; max: 1.1 µg/l; median: 1.1 µg/l. GWSS (Non-random): 1.3% max: 8 µg/l; median: 2.7 µg/l. State Data: 126 positive/1793 sampled, max: 380 µg/l.

Health Effects: Non-carcinogenic (at high doses): congestion and edema of the lungs, hyperemia of the kidneys and liver. Carcinogenic effects: mutagenic; carcinogenic in animal studies: mice, rats, hamsters; sufficient evidence for human carcinogenicity.

**Benzene.** Occurrence: GWSS (Random): 0.6% max: 15 µg/l; median: 3 µg/l. GWSS (non-random): 1.7%; max: 12 µg/l; median: 1.6 µg/l. State Data: 4 positive/645 sampled, max: 17 µg/l.

Health Effects: non-carcinogenic: central nervous system effects, hematological and immunological effects. Carcinogenic effects: sufficient evidence for human carcinogenicity.

**1,1-Dichloroethylene.** Occurrence: GWSS (Random): 1.9%, max: 6.3 µg/l; median: 0.3 µg/l. GWSS (non-random): 3.1%, max: 3.0 µg/l; median: 0.4 µg/l. State Data: NA.

Health Effects: non-carcinogenic effects (at high doses): liver and kidney damage, renal toxicity, CNS depression and sensitization of the heart.

Carcinogenic effects: mutagenic, carcinogenic in one animal study: mice and rats; limited evidence.

**p-Dichlorobenzene.** Occurrence: GWSS (Random): 1.1%, max: 1.3 µg/l, median: 0.7 µg/l. GWSS (Non-random):

0.8%, max: 0.9 µg/l, median: 0.7 µg/l. State Data: N/A.

Health Effects: non-carcinogenic (at high doses): kidney and liver damage, pulmonary edema and congestion, splenic weight changes. Carcinogenic effects: NTP test underway.

**Other VOCs.** Several additional VOCs listed in the ANPRM (47 FR 9350) have been found in some drinking water samples but the available data has been judged to be insufficient to propose RMCLs at this time.

- Cis-1,2-dichloroethylene and trans-1,2-dichloroethylene

These two VOCs have not been tested for carcinogenicity by the NTP and adequate studies on non-carcinogenic toxicity have not been conducted.

- Chlorobenzene

While some occurrence has been reported by a number of States, the GWSS did not detect any chlorobenzene in the random sample; however, it was found twice in the non-random sample. The toxicology evaluation has not been completed.

- Trichlorobenzene(s)

States have detected trichlorobenzene in a number of water samples; however the number of drinking water versus non-drinking water incidences could not be determined from the data. In addition, analytical difficulties in analyzing samples in the GWSS precluded obtaining representative occurrence data.

- Dichloromethane

Because of problems of laboratory contamination and quality assurance, the available occurrence data for dichloromethane was not considered reliable. In addition, the NTP initial report on carcinogenicity has been withdrawn and the NTP is currently conducting an in-depth audit of the data.

These VOCs and several others will be considered in the Phase II portion of the Primary Drinking Water Regulations when sufficient occurrence and toxicology data become available. Among the other compounds being evaluated are such VOCs as ethylene dibromide, 1,1-dichloroethane, xylenes, toluene, bromobenzene, dibromochloropropane, 1,2-dichloropropane, and ethylbenzene (see ANPRM, October 5, 1983, 48 FR 45502). Other chemicals in the random GWSS for which no occurrence information was obtained but which will receive some consideration in Phase II or other iterations include: 1,1,2-trichloroethane, 1,1,2,2-tetrachloroethane, 1,1,1,2-tetrachloroethane, n-propylbenzene, o-chlorotoluene, p-chlorotoluene, m-dichlorobenzene, o-dichlorobenzene, styrene, isopropylbenzene.

### Total VOCs

In addition to regulations for individual VOCs, the inclusion of RMCLs and MCLs for total VOCs (TVOC) is being considered. TVOC is not formally proposed in this regulation. Public comments are being solicited on whether it would be proper to include TVOC in drinking water regulations or in supporting guidance.

TVOC would represent summation of the levels of the individual VOCs for which RMCLs and MCLs have been set. The objective of a TVOC standard is to provide some additional protection from simultaneous exposure to multiple VOCs. As indicated in Table 4, drinking water often contains several VOCs. Generally, toxicology has not yet been able to provide a scientifically based conclusion on possible effects of simultaneous exposure to more than one chemical. Chemicals are normally tested separately and the possible synergistic, antagonistic, or additive health effects are not known. However, the NAS suggestion in this area was that in the absence of any other procedures, exposure to multiple carcinogens could be assessed by adding the risk rates. Comment is requested on the technical validity of this approach.

The potential problem that EPA feels must be addressed is a situation where a public water system finds several VOCs in its drinking water at levels slightly below the MCLs. For example, assume that MCLs are set for trichloroethylene, tetrachloroethylene, and carbon tetrachloride; a public water system with the following levels would technically be in compliance with the MCLs:

Compound	Measured level	Hypothetical MCL
Trichloroethylene .....	9 µg/l	10 µg/l
Tetrachloroethylene .....	14 µg/l	15 µg/l
Carbon tetrachloride .....	4 µg/l	5 µg/l

While technically in compliance with the standards, this condition probably represents an increased risk over any single chemical but the question that cannot be scientifically answered is whether this would be significant. EPA feels that multiple exposures could be more significant than indicated from just consideration of individual substances and requests public comments considering the myriad of possibilities in assessing multiple exposures, the costs and feasibility to reduce all the VOCs by application of one treatment technology, and the unknown aggregate health risk and the SDWA intent to err on the side of safety. If an RMCL and MCL for total VOCs (TVOCs) were

appropriate, should EPA adopt the NAS suggestion that risks be considered additive be an appropriate approach?

### RMCLs: Regulatory Approach

EPA is to set RMCLs at levels which, "no known or anticipated adverse effects on the health of persons occur and which allow an adequate margin of safety". Section 1412(b)(1)(B). Recommended MCLs are health goals and not enforceable standards. The proposed RMCLs for non-carcinogens can be determined using the scientific procedures set forth previously by calculating an AADI. However, determination of the "no effect" levels for carcinogens is a much more complex decision on what constitutes the safe level for non-threshold toxicants. Guidance on levels for the RMCLs was provided in House Report 93-1185 which stated that "It [The RMCL] must include an adequate margin of safety, unless there is no safe threshold for a contaminant. In such a case, the recommended maximum contaminant level should be set at zero level." EPA has considered the following approaches for setting RMCLs for carcinogens:

1. Set the RMCLs at zero.
2. Set the RMCLs at the analytical detection limit.
3. Set the RMCLs at a non-zero level based upon a calculated negligible contribution to lifetime risk.

Although one of these is proposed at this time, EPA requests comments on all three approaches. EPA's analysis of these approaches and the issues they raised are provided below.

**Alternative 1: Set RMCLs at zero.** One approach would be to establish RMCLs at zero for substances considered to be non-threshold toxicants. The existence of a threshold for the action of genotoxic carcinogens cannot be demonstrated by current science; thus, it could be conservatively assumed that no threshold exists, absent evidence to the contrary. Since distinctions between mechanisms of action of most carcinogens also cannot be conclusively made at this time, virtually all substances determined to be "carcinogens" would be assumed to be "non-threshold". Variation of this approach would be to limit the selection of RMCLs at zero only for those substances known to function by genotoxic processes, or perhaps only those determined to be human carcinogens, or only those for which "sufficient" rather than "limited" evidence of mammalian carcinogenicity exists.

Setting RMCLs for carcinogens at zero would follow the guidance provided in House Report 93-1185 and would express a general philosophy that *as a goal* carcinogens should not be present in drinking water. The Agency believes that the RMCLs (as a goal) should express the ideal concept that drinking water should be free from avoidable contamination and risk and that quality degradation should not be permitted.

If RMCLs are set at zero, some explanation may be needed to differentiate an RMCL from an MCL that would not be zero, since MCLs consider factors such as potential health risk, costs of treatment and feasibility of meeting the MCL. If these factors changed substantially, MCLs would need to be reexamined.

**Alternative 2: Set RMCLs at the analytical detection limit.** Due to limitations in analytical techniques, it will always be impossible to say with certainty that the substance is not present. In theory, RMCLs at zero will always be unachievable (or at least not demonstrable). While zero could be the theoretical goal for carcinogens in drinking water, in practice, a goal of achieving the analytical detection limits for specific carcinogens would have to be followed.

One possible approach would be for EPA to specify RMCLs for carcinogens based upon defined state-of-the-art analytical detection limits. The verifiable detection limits (i.e., the RMCLs) would probably fall in the vicinity of 1 µg/l depending upon the specific VOC. EPA believes this approach is justifiable in that zero is analytically undefinable and the detection limit may be the functional equivalent of zero. Of course, analytical detection limits are also moving targets as the state-of-the-art of analytical chemistry progresses, but at least they do provide a measurable target.

**Alternative 3: Set RMCLs at a non-zero level based upon a calculated negligible contribution to lifetime risk.** Alternative 3 would establish a non-zero level as the RMCL. A level could be selected that would present a negligible risk. In practical terms, such a low nominal risk would effectively preclude any discernable adverse effect on the health of the population and, because of the conservative nature of the risk calculation process, may not result in any actual adverse effects on an individual. EPA would have to conclude that this very low risk would result in "no known or anticipated adverse effect on the health of persons and which allows an adequate margin of safety". This approach would provide some

quantitative guidance to public water systems of the ultimate goal which they might wish to use in the operation of water treatment facilities and in the design of future planned facilities. However, it should be recognized that just as with analytical detection limits (Option 2) a calculated risk target would also be moving target, because: (1) calculation methods change, and (2) the subjective determination of what is a negligible risk might change.

One possible variation of Option 3 would be to set RMCLs as a range of finite risk levels. This alternative would recognize the lack of accuracy and precision of risk calculations and the inherent difficulties in selecting one finite level as the *only* appropriate health goal in view of the numerous scientific uncertainties of risk estimates. However, this approach has a number of disadvantages including: lack of national uniformity and lack of specific guidance from EPA.

If a non-zero level is determined as appropriate for the RMCLs, two questions must be considered.

(1) What level should be used as representing the "no effect" level?

(2) How can an "adequate margin of safety" be incorporated into the finite risk level?

The NAS principles (*Drinking Water and Health*, Vol. 1) state that human exposure to carcinogens should be addressed in terms of risk rather than safe or non-safe. Because zero is not definable in an analytical sense, rather than speaking in terms of zero concentrations for carcinogens RMCLs for carcinogens could be set at levels at which the risks are so small that they are considered virtually nonexistent.

Determination of RMCLs for carcinogens at a finite level would be based on available science and the only quantitative tools available are cancer risk models. These are based upon animal studies and none of the models is experimentally verifiable as there is no scientifically valid method for determining the actual risks at low environmental exposure levels. Scientific issues surround their use in such areas as the data used, extrapolation techniques, and various factors in the analysis. Risk models are recognized as imperfect but they are the best tool available for estimating toxic potency or risk at low exposure levels. The commonly used risk models are generally conservative in their estimation of human risk of exposure to a contaminant. Selection of a target risk based upon a conservative risk model, such as the linearized multi-stage model, is arguably in accord with the SDWA, which requires the RMCL to be set at a

no effect level "with an adequate margin of safety." The Agency believes that there is no exact or precise way to determine this level. The decision is judgmental—not strictly based upon science but upon a social judgment on what constitutes a negligible risk.

Federal regulations for environmental contaminants have generally fallen in the  $10^{-4}$  to  $10^{-6}$  lifetime risk range, as calculated from a linear multi-stage model. Most of those decisions incorporated consideration of costs and feasibility.

The negligible risk concept considered here is based strictly on individual risk rates and exposure. It does not include other economic or technical considerations that are part of setting the enforcement standards (i.e., the MCLs). The level for the MCLs (not RMCLs) would thus be considered to be the upper limits of risk that are considered to be acceptable based upon our current evaluation of the feasibility and costs of controls.

Under this approach to setting drinking water RMCLs, EPA has considered two risk levels as possibly representing an upper limit for a risk: one in 100,000 ( $10^{-5}$ ) probability per 70 years of exposure and one in 1,000,000 ( $10^{-6}$ ) probability. An incremental lifetime risk level of  $10^{-6}$  would probably be more representative than  $10^{-5}$  as the "no effect" level for these chemicals in drinking water with a margin of safety as envisioned by Congress. The NDWAC stated that  $10^{-5}$  would be an appropriate target. However, a level of  $10^{-6}$  is the level of concern that commonly has been discussed as the lower limit of concern over the potential health risks of exposure, especially for the generally involuntary risk from exposure to a drinking water contaminant.

In addition, if RMCLs were to be set at a non-zero level, use of the linearized multi-stage model would often appear to be more appropriate than others to meet the Congressional intent. The conservative nature of the model could actually mean that the real risk of exposure was probably lower (e.g.,  $10^{-7}$  or  $10^{-8}$ ) if any risk actually exists (assuming a non-threshold mechanism were operative) because the model was structured to be conservative and because of the nature of many of the assumptions in the model.

As an example of what  $10^{-6}$  would mean in terms of the U.S. population, a total of 20 cases of cancer would result if 10 percent of the population were exposed at a dose level equivalent to a  $10^{-6}$  risk for 70 years. Stated another way, that would be one-third of a cancer case per year as an upper limit in the

U.S. population compared to the appropriately 500,000 annual cancer deaths that occur. The actual number of cases attributable to that particular substance would probably be less and perhaps none at all would occur unless some additive or synergistic interaction with other substances resulted in enhanced toxicity.

*Proposed RMCLs: Conclusions.* This proposal selects RMCLs for potential carcinogens at zero; the alternatives were carefully considered in view of the intent of the SDWA and public comments. It should be recognized that regardless of which of the three alternatives is ultimately selected for the RMCL, it is unlikely that the MCL for a particular substance would be affected, since normally all of the approaches would yield targets that are likely to be below levels that are "technically and economically feasible" using available technologies. MCLs will be set as close to the RMCLs as feasible. Preliminary analyses indicate that the MCLs may fall roughly in the range of 5 to 50  $\mu\text{g/l}$  for most of the VOCs being considered in this proposal.

Proposed RMCLs for the following substances considered carcinogenic are "zero": tetrachloroethylene, trichloroethylene, carbon tetrachloride, 1,2-dichloroethane, vinyl chloride, benzene, 1,1-dichloroethylene.

The proposed RMCL for 1,1,1-trichloroethane is 0.2 mg/l, derived from the calculated AADI of 1.0 mg/l assuming 20 percent contribution from drinking water to total exposure. If the preliminary NTP report on the carcinogenicity of this compound is affirmed, the RMCL would be zero. EPA would provide formal notice if and when this occurs.

The proposed RMCL for p-dichlorobenzene (1,4-dichlorobenzene) is 0.75 mg/l, derived from the calculated AADI of 3.75 mg/l assuming 20 percent contribution from drinking water to total exposure.

Three of these substances (trichloroethylene, tetrachloroethylene and 1,1-dichloroethylene) have only "limited" animal evidence of carcinogenicity, as this term is used in the IARC criteria. Factors which contribute to this classification include lack of replication in multiple experiments or multiple species, as well as defects in particular studies. In addition, indicators of certain types of tumors, such as in the mouse liver, are considered by some scientists to have less weight than others in predicting carcinogenicity in humans. Data of this type, obtained by corn oil gavage, introduces another variable that

complicates interpretation. While evidence for these three substances is of a weaker nature than for others that EPA is proposing to regulate as carcinogens, it is nevertheless evidence that must be weighed by the Administrator.

The strictly scientific evaluation of such evidence (known as "risk assessment") can only describe its strength and weaknesses. EPA's risk assessment is summarized above and described in detail in the documents referenced in Section VII. Health Assessment documents for these three substances were reviewed by EPA's Science Advisory Board in April and May of 1984. Those reviews will be considered in this rulemaking action under the SDWA and become part of the record.

Decisions about what actions to take on the basis of the evidence (known as "risk management"), including decisions about how strong the scientific evidence should be to justify regulating a substance, require policy judgments which must be made by the Administrator, after public comment, in the light of the Agency's statutory mandates.

EPA strongly believes that its risk assessments should be consistent among Agency programs. On the other hand, risk management decisions can and should vary in the light of differing circumstances or statutory mandates. It is therefore possible that some of these substances might be regulated differently in other Agency programs. For example, EPA plans to decide whether to list several of these substances as hazardous air pollutants under section 112 of the Clean Air Act. The same scientific evidence will be considered along with other factors relevant to that decision. This may or may not lead to a conclusion to list and to regulate them as carcinogens.

Public comments are requested on setting RMCLs for carcinogens at zero, the analytical detection limit, and at some finite value based upon risk estimation. Comment is also requested on appropriate analytical detection limits, and on the method for calculating the finite risk value and for determining the risk target. Comments are also requested on the RMCLs for non-carcinogenic substances and the assumption of an exposure factor of 20 percent from drinking water, absent quantitative multi-media exposure data.

Comment is also directed to technical determinations, AADI calculations, the draft revised CAG risk calculations, and the inclusion of substances with "limited evidence" in the carcinogen category. If, on the basis of the record, it is

determined that one or more of these substances should not be treated as carcinogens, then the AADI calculations modified by an allocation of 20 percent to drinking water would be the basis for the promulgated RMCL.

#### VI. Other Considerations for Public Comment

The next regulatory steps will be promulgation of the RMCLs and proposal of MCLs and monitoring and reporting requirements. Supporting documentation for the MCL proposal will include: (1) Exposure and risk assessments, (2) an assessment of generally available technology, (3) an assessment of available analytical methods and costs of monitoring, and (4) an economic and financial impact analysis. Available information to support several of the assessments is referenced in the next section. The public is requested to review those references and provide comments and other supporting information and data. The public is also requested to comment on the issues and information discussed below on available treatment techniques and costs and current estimates of the potential impact of VOC regulations.

#### Treatment of Control of VOCs

Economics, treatment technologies and feasibility are not factors involved in the determination of RMCLs; however

brief discussions are provided here. These factors are key elements in the determination of the MCL which will be proposed when the RMCLs are promulgated.

Methods for removal of these volatile organic chemicals include aeration and granular activated carbon (GAC). The available data do not show powdered activated carbon treatment or conventional drinking water treatment (i.e., coagulation, sedimentation, and filtration) to be sufficiently effective for long term application. Macroreticular resins may eventually prove to have value for removing VOCs; questions still exist concerning their use. Data describing actual exhaustive capacity of the resins are not available to define the regeneration frequencies to be expected with the resins. Thus, costs have not yet been estimated for application of resin technology. At this time, substantial operational experience and/or experimental data are available only for aeration and GAC.

**Costs of treatment.** Preliminary designs and cost estimates have been developed for a hypothetical ground water contamination situation involving trichloroethylene (TCE). Table 8 provides relevant estimated cost information for treatment of TCE at the 90 percent and 99 percent removal levels, respectively, for aeration and GAC technologies.

TABLE 8.—PRELIMINARY COSTS FOR CONTROLLING TCE IN DRINKING WATER  
[1983 dollars]

Type of treatment	Estimated costs—System size—Population served		
	100 to 500 (0.05 mgd)	1,000 to 2,500 (0.43 mgd)	10,000 to 25,000 (4.0 mgd)
<b>Packed tower aeration:</b>			
For 90 percent removal, e.g., source 500 µg/l MCL 50 µg/l			
Capital cost	\$18,000	\$30,000	\$269,000
Cost per thousand gallons (cents)	123	34	8
For 99 percent removal, e.g., source 500 µg/l MCL 5 µg/l			
Capital cost	\$26,900	\$129,000	\$510,000
Cost per thousand gallons (cents)	181	41	11
<b>Granular activated carbon:</b>			
For 90 percent removal, e.g., source 500 µg/l MCL 50 µg/l			
Capital cost	\$23,400	\$34,000	\$489,500
Cost per thousand gallons (cents)	143	36	19
For 99 percent removal, e.g., source 500 µg/l MCL 5 µg/l			
Capital cost	\$23,400	84,000	488,500
Cost per thousand gallons (cents)	143	39	22

#### Notes:

For packed tower aeration—fiberglass reinforced plastic shell with plastic packing material and separate housing; Kavanaugh & Trussell design procedure; contingency factors of 25 percent for engineering, 25 percent for overhead and profit, 25 percent for shipping and installation; electricity costs 8 cents per kWh; interest rate of 12 percent; amortization period of 20 years. For granular activated carbon—empty-bed-contact-time of 10 minutes; pressure controllers based upon quoted prices of various manufacturers; initial charge carbon costs 65 cents per lb.; contingency factors of 25 percent of engineering, 25 percent for overhead and profit, 25 percent of shipping and installation; electricity costs 8 cents per kWh; interest rate of 12 percent; amortization period of 20 years.

#### Potential Impact of Regulations

The nominal limits of detection attained by the laboratories performing analyses in the GWSS were usually in the 0.2 to 0.5 µg/l range depending upon

the specific chemical, although it appears that precision and accuracy requirements for regulatory compliance determination might require that regulations (MCLs) be set at least one



order of magnitude higher. The feasible application of aeration and granular carbon might also lead to MCLs in a similar range, i.e., on the order of 5–50 µg/l. At this level, very preliminary projections are that about 1,000 systems would probably need to reduce VOC levels either through treatment technologies or other options such as blending or shutting down wells; most of these would be communities utilizing ground water.

Therefore, based upon current exposure estimates, risks of most VOCs would not appear likely to represent a high impact, nor would regulations result in a significant number of cancer cases avoided based upon total cancer rates and projected risks using the linear multi-stage model. Although VOC contamination is widespread across the country, it is usually at low levels, and the overall population at risk is quite low. Moreover, most VOCs do not appear to be highly potent carcinogens. However, in those communities where exposed levels are relatively high, resulting in correspondingly higher risks per individual, control is obviously essential. On the other hand, where that is not the case, the non-quantifiable benefits would probably be of most importance in determining the proper approach. These would include such items as providing federal standards to be used as a benchmark in responding to incidences of contamination, and use in ground water protection and clean-up programs.

*Economic impact analysis.* The proposal of an RMCL is different than proposal of an MCL in that an RMCL is, by law, to be based only on health and safety considerations, while an MCL is to take costs into consideration. Therefore, this RMCL proposal notice does not include an analysis of the economic impacts of various possible RMCLs. However, we intend to fully analyze the probable impacts of the various MCL alternatives, and will report on them at the time an MCL is proposed.

Because the economic impact analysis is an important part of the rulemaking decision process, and because some reviewers of this notice may be concerned that insufficient attention is being paid to economic considerations, below is a brief indication of how EPA will conduct the economic analysis of alternative MCLs, and what is considered from the results of the analysis.

Executive Order 12291 and the Regulatory Flexibility Act specify how and when to analyze the probable impacts of a Federal action. In essence, information on the impacts to industry,

consumers and the nation is assembled. Where possible, this information is put in the form of an analysis of the net benefits of the various alternatives. This "regulatory impact" information then becomes a part of the official record in support of whatever action EPA finally takes, and is used by decision-makers when an alternative MCL is selected for proposal, and when final MCL is promulgated.

The types of impacts which will be examined for each of the various regulatory and non-regulatory alternatives are of three basic types. The impacts of the alternatives on the water supply industry will be examined. This will be done by reviewing three elements, the capital cost of technology, the operating and maintenance cost and the feasibility of financing new treatments. The first two elements are derived by the engineering analysis of treatment technologies, and the cost of treatments. The third element, the ability to finance new treatments is derived from an analysis of the water supply industry. A financial model of the industry has been developed by EPA, and this model indicates how likely it is for water systems to be able to finance new treatments, based on the historical financial performance of water systems.

The second type of impact is the impact on the consumer. Information on the cost of water to consumers is assembled, based on the cost data prepared during the engineering analysis of treatment technologies. These costs are compared with the historical cost of water.

The third type of impact is the impact on the nation as a whole. The purpose of this analysis is to allow balancing of the cost of a federal action, in this case MCLs, with the benefit to be derived from the action. In some cases, it is not possible to describe the value of the benefits in the same terms as the costs, i.e., dollars. The benefits which will accrue to the nation are derived from an analysis of the contamination occurrence, the reduction in human exposure likely to result from an alternative, and the health effect averted by the reduction.

The cost of the various alternative MCLs is more than merely the cost to industry. It also includes the cost to government of implementing the regulation. These national costs are summarized and presented with the national benefits, and this too becomes a part of the record supporting the proposed and final MCL.

Because these various analyses are based on estimates, an additional analysis is conducted which indicates

the sensitivity of analytical results to the assumptions made during the analysis. This sensitivity analysis completes the general regulatory and non-regulatory analysis required under E.O. 12291. A summary of these analyses will be presented in the preamble of the MCL proposal notice, and full documentation of the underlying analyses will be entered into the formal record of the rulemaking procedure.

## VII. References

The following supporting documentation for this proposal is available on request from the address listed at the beginning of this notice.

- Bellar, T.A., Lichtenberg, J.J. "The Determination of Halogenated Chemical Indicators of Industrial Contamination in Water by the Purge and Trap Method: Method 502.2," U.S. EPA, EMSL #600/4-81-059.
- Bellar, T.A., Lichtenberg, J.J. "The Analysis of Aromatic Chemicals in Water by the Purge and Trap Method: Method 503.1," U.S. EPA, EMSL, EPA 600/4-81-057.
- Love, O. Thomas, Jr. and Richard G. Eilers, "Treatment for the Control Trichloroethylene and Related Industrial Solvents in Drinking Water," U.S. EPA, Office of Research and Development, February 1981.
- Environmental Science and Engineering, "Treatment for Control of VOCs in Drinking Water," August 1983.
- EPA, Criteria and Standards Division, Draft Criteria Document for Trichloroethylene, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for Tetrachloroethylene, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for Carbon Tetrachloride, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for 1,1,1-Trichloroethane, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for 1,2-Dichloroethane, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for Vinyl Chloride, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for Benzene, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for Dichloroethylene, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Draft Criteria Document for Dichlorobenzene, EPA, Office of Drinking Water, February 1984.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals

- in Drinking Water, Benzene, November 1983.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, Dichlorobenzene, December 1983.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, Dichloroethylenes, November 1983.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, Trichloroethylene, June 1982.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, Tetrachloroethylenes, June 1982.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, Vinyl Chloride, June 1982.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, 1,1,1-Trichloroethane, June 1982.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, 1,2-Dichloroethane, November 1983.
- EPA, Criteria and Standards Division, Occurrence of Volatile Organic Chemicals in Drinking Water, Carbon Tetrachloride, November 1983.
- EPA, EMSL, "Total Organic Halide, Method 450.1-Interim," EPA 600/4-81-056.
- EPA, Office of Health and Environmental Assessment, Draft Health Assessment Document for Vinylidene Chloride, Office of Research and Development, October 1983.
- EPA, Office of Health and Environmental Assessment, Draft Health Assessment Document for Carbon Tetrachloride, Office of Research and Development, August 1983.
- EPA, Office of Health and Environmental Assessment, Draft Health Assessment Document for 1,1,1-Trichloroethane, Office of Research and Development, November 1983.
- EPA, Office of Health and Environmental Assessment, Draft Health Assessment for Tetrachloroethylene, Office of Research and Development, December 1983.
- EPA, Office of Health and Environmental Assessment, The Carcinogen Assessment Group's Evaluation of the Carcinogenicity of Benzene (DRAFT), Office of Research and Development, March 1983.
- EPA, Office of Health and Environmental Assessment, Draft Health Assessment Document for Trichloroethylene, Office of Research and Development, December 1983.
- EPA, "Review of a Carcinogenicity Study on Vinyl Chloride," Memo from Robert E. McGaughy, Office of Research and Development to Joseph A. Cotruvo, Office of Drinking Water, Jan. 6, 1984.
- National Academy of Sciences, "Drinking Water and Health," Volume I (1977), II (1980), IV (1981), V (1983).
- IARC, 1979. IARC Monographs on the evaluation of the carcinogenic risk of chemicals to humans: some halogenated hydrocarbons. Vol. 20: 14-15.

IARC, Approaches to Classifying Chemical Carcinogens According to Mechanism of Action, Technical Report No. 83/001. April 1983.

NCI, "Policy of Risk Assessment of the Health Effects of Hazardous Exposures to Populations," Subcommittee on Environmental Carcinogens, National Cancer Advisory Board. 1983.

Bruckner, James. Progress Report, Coop. Agr. 807449-02, pp. 18-22. Univ. of Texas Medical Center at Houston, July 11, 1983. Oral Toxicity of Carbon Tetrachloride in Rats. Manuscript in preparation.

### VIII. Request for Comments

EPA requests public analyses, comments and information on all aspects of this proposal. The questions for which comment is being specifically solicited are listed below. Comment will be of great assistance to EPA in formulating a protective and practical approach to reducing human exposure to VOCs in drinking water.

- How strong should the scientific evidence be to justify regulating a substance, particularly for carcinogenicity?

- When positive evidence exists but is sparse or inconclusive, how should it affect decision-making? Should there be a well-defined and uniform minimum level of evidence of carcinogenicity in animals or humans? If so, what evidence would comprise this minimal level?

- When substantial doubt exists as to whether a substance causes a serious health or environmental risk, how should EPA balance its mandate to err on the side of protection against the competing risk of imposing costly regulations on substances which may later be shown to be benign?

- How should evidence of mouse liver tumors be weighed? If evidence is limited to mouse liver tumors, is that sufficient evidence to warrant regulating that substance as a carcinogen? Conversely, what would be the scientific basis for giving mouse liver tumors less weight in the evaluation of the potential for human carcinogenicity?

- What level should be set for RMCLs that would represent a level such that "no known or anticipated adverse effect would result with an adequate margin of safety"?

- For non-carcinogens, is the approach used for computing the AADIs scientifically acceptable? Is providing for an assumed contribution of 20 percent from drinking water appropriate when more precise data is not available.

- Should RMCLs for carcinogens be set at zero? If RMCLs are set at zero, what guidance, if any, should be

provided on the actually attainable target levels in drinking water?

- Should RMCLs for carcinogens be set at the analytical detection limit? What would this be for each VOC considered in this proposal?

- Should setting RMCLs for carcinogens be established at a non-zero level based upon a negligible risk determination? What non-zero level and upon what basis? Which model and which assumptions? Does an incremental lifetime risk level of  $10^{-6}$  represent a virtually non-existent or negligible risk? Should higher or lower risk rates be considered? Would another level be more representative yet meet the needs for practical implementation of the SDWA? Would use of the linearized multi-stage model in the non-zero RMCL calculations meet the Congressional intent to incorporate a margin of safety into the RMCLs?

- Should a range of finite risk levels for each RMCL be selected such as  $10^5$  to  $10^{-6}$  instead of zero or a single value?

- How should the degree of evidence of potential carcinogenicity be factored into the RMCL determinations? If there is sufficient experimental evidence of human carcinogenicity, should the RMCL be either zero or the one in one million risk equivalent, or some other calculated value? Should the RMCL be set at a higher concentration and higher nominal risk (to indirectly reflect less concern) as the strength of evidence of carcinogenicity is reduced? For example, if there is only sufficient evidence of animal carcinogenicity, should the RMCL be in the  $10^{-3}$  up to the  $10^{-6}$  range, whereas if there is only limited evidence of animal carcinogenicity, should the RMCL be in the  $10^{-4}$  to  $10^{-5}$  risk range? If less than "limited evidence" is available, should the RMCL be determined based upon an ADI calculation?

As another example, could RMCLs for substances such as TCE and PCE with limited, insufficient, or less convincing evidence of carcinogenicity be produced on the basis of chronic toxicity, but with an additional margin of safety or based upon the minimum measured cancer producing dose level such as was suggested by Weil (*Toxicology and Applied Pharmacology* 21 454-163 (1972))? This would differentiate those from substances such as benzene or vinyl chloride which have the most complete evidence and therefore warrant the most conservative regulatory treatment.

- Should an RMCL and an MCL be set for total VOCs to address multiple exposure to VOCs? On what basis?



A public hearing will be held in Washington, D.C., for the interested public to comment and provide information and data on the regulatory approach.

EPA recognizes that many significant questions surround the issue of the control of volatile synthetic organic chemicals in drinking water. The Agency has attempted in this proposal to portray current scientific uncertainties in a measured and objective manner. In this way, any data gaps or errors in logic which may exist can be identified and corrected. For that reason, careful review of and thoughtful comment on the information in this proposal is encouraged.

Under the Regulatory Flexibility Act, 5 U.S.C. 601 et seq., I certify that this action will not have a significant impact on a substantial number of small entities. This proposed action will have no economic impact in and of itself because these are non-enforceable health goals.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirements of a Regulatory Impact Analysis. This proposed action does not constitute a "major" regulatory because it will not have a major financial or adverse impact on the community and it is a non-enforceable action. This regulation was submitted to the Office of Management and Budget for review as required by Executive Order 12291.

#### List of Subjects in 40 CFR Part 141

Chemicals, Water supply.

42 U.S.C. 300/SDWA 1412.

Dated: June 1, 1984.

William D. Ruckelshaus,  
Administrator.

For the reasons set out in the preamble, Part 141 of Chapter I of Title 40 of the Code of Federal Regulations is proposed to be amended as follows:

#### PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

1. The title of Part 141 is revised to read as set forth above.

2. In § 141.2, paragraph (u) is added to read as follows:

##### § 141.2 [Amended]

\* \* \* \* \*

(u) "Recommended maximum contaminant levels" means the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur and which includes an adequate margin of safety.

3. A new Subpart F, consisting of §§ 141.50 and 141.51, is added as follows:

#### Subpart F—Recommended Maximum Contaminant Levels

##### § 141.50 Recommended maximum contaminant levels for organic chemicals.

The following are Recommended Maximum Contaminant Levels for organic chemicals. They are non-enforceable goals for public water systems.

(a) Recommended Maximum Contaminant Levels are zero for the following substances: trichloroethylene, tetrachloroethylene, carbon tetrachloride, 1,2-dichloroethane, vinyl chloride, 1,1-dichloroethylene, and benzene.

(b) Recommended Maximum Contaminant Levels for the following substances are as indicated:

	Milli-grams per liter
1,1,1-trichloroethane .....	0.2
p-dichlorobenzene (1,4-dichlorobenzene) .....	0.75

##### § 141.51 [Reserved]

#### Appendix A.—Summary of Public Comments Pertinent to the Proposed Recommended Maximum Contaminant Levels (RMCLs) for Volatile Synthetic Organic Chemicals (VOCs) in Drinking Water

The following is a summary and discussion of the principal public comments to EPA's proposed rule for the establishment of RMCLs for certain VOCs in drinking water. EPA specifically solicited comments on the following three issues in its March 4, 1982, Advance Notice of Proposed Rulemaking:

1. What is the significance of contamination of drinking water by VOCs?

2. What approach should EPA take to deal with VOCs in drinking water?

3. What level should be set for RMCLs such that, "no known or anticipated adverse effect" will result? How should the health basis be determined for any MCLs?

EPA received 136 written comments during the 210-day public comment period and five oral statements were presented at the public meeting held in Washington, D.C., on April 28, 1982. The comments included 26 public interest groups, 14 water utilities, 16 chemical manufacturing companies, 11 state governments and state organizations, 12 local governments, 40 private citizens

and 18 from other groups including some members of Congress.

The following discussion summarizes comments received on the ANPRM for VOCs.

1. What is the significance of contamination of drinking water by VOCs?

A total of 66 commenters addressed this issue. A majority of comments (41) felt that VOC contamination in drinking water is a significant national problem because of the frequency of occurrence and potential health risk warranting action to limit exposure to VOCs. Their reasoning is based on the following: Local problems of severe VOC contamination, the number of VOCs in drinking water is continually increasing and VOCs have been demonstrated to cause serious carcinogenic and non-carcinogenic toxic effects. Some of the toxic effects are as follows: Some VOCs are known animal carcinogens and vinyl chloride is both an animal and human carcinogen, causes hepatomas in animals and in some cases in humans, is toxic to the kidneys, has serious effects on the reproductive system, and depresses the central nervous system.

One commenter stated that the results of a monitoring study conducted by New Jersey showed 17 percent of the 1,200 wells tested contained VOCs at concentrations above 10 ppb. They felt that, "the toxic properties of these chemicals, including the potential increased risks of cancer and birth defects, warrant federal action".

Twenty-five commenters felt that neither the occurrence data, the health effects data, nor the combined data, demonstrate on a national basis the significance of VOC contamination in drinking water; therefore action to limit human exposure to VOCs is not warranted. Reasons cited were: VOC contamination in drinking water is a localized problem, not a widespread national problem; more information is needed on occurrence and health effects, especially in order to assess the significance of VOC contamination; state data represented emergency spill situations which are not considered to be statistically representative of national occurrence; when present, VOCs usually occur at low part per billion concentrations, whereby significant health risks would not be expected; and the results of the Ground Water Supply Survey (GWSS) should be considered questionable because the detection limits that were used (i.e., 0.2 µg/l) are extremely sensitive and can rarely be reached. One comment stated that "positive occurrence data does not present a case for regulation".

In general, these commenters felt that the major shortcomings of the available health effects data is that it is not scientifically established at this time and subject to debate among the scientific community. One commenter specifically stated that "until the extent of the threat of human health of VOCs, if any, can be established, federal regulations governing VOCs are not justifiable on mere occurrence data alone".

2. What approach should EPA take to deal with VOCs in drinking water?

A total of 118 comments were received that addressed this issue. Comments favored one of the three approaches provided in the ANPRM which are:

- Non-federal regulatory approach
- Establish monitoring requirements and provide Health Advisories (formerly termed SNARLs) for State response as appropriate
- Establish national regulations for monitoring and MCLs

The non-federal regulatory approach was favored by 22 commenters. Several commenters stated that recent surveys by EPA and their own sampling did not indicate a major VOC contamination problem within certain States, thus, MCLs and monitoring requirements are not warranted.

A number of commenters felt that the health effects data were insufficient to show a health risk that would warrant regulation. One commenter stated that "EPA has not presented any evidence that there is any risk to the population requiring Federal regulation. Furthermore, where the contamination is the result of improper disposal of solvents, guidance is needed by those implementing the RCRA/Superfund cleanup as to an adequate effort". One commenter summed up this sentiment as "there is a need for a rational[e] and consistent approach to the problem of low levels of carcinogens in drinking water, but the science is not sufficiently developed to guide regulatory and utility actions with any degree of certainty".

Some commenters are opposed to national regulations for VOCs because, "shrinking federal and state resources are creating problems for the already existing drinking water programs". They felt that "EPA should focus on source protection and rapid reaction to ground water contamination than attempt to cover all possibilities by regulation".

The majority of these commenters favored the continued use of Health Advisories to handle contaminant situations. However, two comments were received that specifically requested that "once a health advisory is released, it should be published in the

Federal Register, detailing EPA's derivation of the health advisory". "Based on the scientific input and occurrence information received, EPA must issue an updated health advisory and can then decide if there is a need to establish MCLs." One commenter stated that "Health Advisories should be the first step in determining whether or not it is necessary to establish an MCL for a particular contaminant". In addition, one commenter favored the use of Health Advisories as opposed to national monitoring requirements, in that the latter would only gather more occurrence data.

In general, these commenters favored EPA continuing to provide research data and technical advice (i.e., Health Advisories) when dealing with contaminant situations. In addition, "routine, repetitive monitoring requirements must not be put into regulations because monitoring programs must be flexible and can best be developed by States and water utilities".

Option 2, whereby EPA should establish monitoring requirements and provide Health Advisories for State response as appropriate was favored by 13 commenters. The basis for the comments which recommended this approach was two-fold: (1) Localized VOC contaminant situations, especially in ground water necessitates monitoring requirements, and (2) the health effects data is unclear and insufficient to establish MCLs since "safe" levels of VOCs cannot be determined at this time. Health Advisories should be used in dealing with contaminant situations.

Generally, these commenters felt that ground water contamination is a problem in some places, which must be addressed; however, VOC contamination is not widespread enough to require highly formalized and restrictive requirements. Furthermore, the available data are insufficient to determine the scope of the problem and only monitoring should be done to determine where problems exist. Therefore, instead of setting MCLs, guidance should be provided. These commenters generally supported giving States considerable authority for implementation of the monitoring requirements and for determining appropriate action when contamination is found.

A few of the comments received, which favored the monitoring requirements option, proposed an action-oriented approach in the form of contamination levels and action categories. They felt that guidance for five of the VOCs should be established as follows:

Compound	Concentration levels categories (ug/l)		
	I	II	III
Vinyl chloride	>100	10-100	<10
Trichloroethylene	>500	50-500	<50
Tetrachloroethylene	>500	50-500	<50
Carbon tetrachloride	>500	50-500	<50
1,2-Dichloroethane	>250	25-250	<25

**Note:**

Category I—high concentration and consequently greater risks. Immediate action warranted to reduce contaminant level.

Category II—intermediate concentration with lower risk. Prompt action warranted to step up surveillance and consider control strategies. Action should reflect whether the concentration is at higher or lower part of the range.

Category III—very low concentration. Little risk associated with these concentrations. Only routine monitoring is needed.

The third option which would require establishing national regulations for monitoring and MCLs, was favored by 82 commenters. Numerous commenters stated that MCLs and monitoring requirements should be set for the VOCs. A number of these commenters qualified their statements by saying MCLs should be set if it is shown that the occurrence of VOCs is widespread and the health effects data show that VOCs are a health risk. However, most commenters felt that sufficient data were available showing VOCs to be a widespread problem, that data did show a potential health hazard, and that MCLs were needed.

The following related statements were made:

- Problems with organic chemicals have been shown in several States and without enforceable standards; the problems will continue to spread; the justification for cleaning contaminated aquifers will be challenged on a case-by-case basis.

- Consistent, nation-wide standards are needed for VOCs (numerous commenters explicitly stated that "uniform, mandatory and enforceable standards" are needed) to provide adequate public health protection in each State. Latitude for stricter rules by the States was suggested by one commenter.

- While Health Advisories were noted to have been very useful in addressing incidences of VOC contamination, several public water systems commented that the States have adopted widely varying approaches to dealing with VOCs in drinking water. Some States have adopted the Health Advisories as enforceable standards and consequently public water systems have been forced to make permanent and costly decisions on the basis of health guidance.

- Alternative involving determination of the acceptable levels of contaminants by individual States, based on EPA advisory options, will not be effective. Their reasoning is that EPA advisory

opinions on health effects will be misinterpreted and misused as demonstrated by many States that have used the Health Advisories as rigid criteria by which suitability of a water supply is measured. The fact that Health Advisories are developed without consideration for possible carcinogenic properties of a compound and with disregard for economic and technological feasibility of achieving them is forgotten. We are better off with MCLs established in the process involving public participation and intended to be the rigid standards by which quality of drinking water is measured.

- If left to the States, drinking water guidelines will differ from each other. "This will lead to confusion and poor public image for State agencies which recommend guidelines less stringent than others. In addition, leaving the regulatory activity to States will require more human resources in the area of toxicological evaluation and standard setting. Many States do not have these resources. Thirdly, enforcement will be very difficult, if not impossible, if neighboring States have different drinking water standards. Contamination has no boundaries."

One commenter summarized their argument for MCLs in the following manner: "Contamination of water supplies in the U.S. with VOCs is indicative of a national trend. Setting legally enforceable national standards will be important in reversing that trend. It will establish a ceiling on how much contamination of drinking water is acceptable and will trigger remedial action in situations where the ceiling is almost reached or exceeded."

A number of comments were received that addressed monitoring requirements and treatment costs; however, these comments will be addressed when the proposed rule for the establishment for MCLs is published.

3. How should the potential health risks of exposure to VOCs be assessed? What level should be set for RMCLs such that "no known or anticipated adverse effects" will result?

In assessing the potential health risks of exposure to VOCs, numerous questions arise such as:

(1) Whether or not a compound can be classified as "genotoxic" or "non-genotoxic"?

(2) Should different risk models or approaches be used for carcinogens that are not genotoxic?

(3) Would the risk of exposure to two or more VOCs be considered additive, antagonistic, synergistic?

(4) Which subgroup of the general population should be addressed?

(5) How should exposure to VOCs from other routes (i.e., air or food) be addressed?

Consideration of the potential health effects of a chemical encompasses the evaluation of available data and the potential for human health effects from exposure via drinking water. A number of comments addressed the aforementioned issues.

First, the issue as to what criteria could be used to classify a compound as "genotoxic" or "non-genotoxic" was addressed by seven comments. Four of the commenters suggested that the criteria to classify a compound as "genotoxic" include:

1. a reliable, positive demonstration of genotoxicity in appropriate prokaryotic and eukaryotic systems *in vitro*;
2. positive results in studies on binding to DNA; and
3. evidence of biochemical or biologic consequences of DNA damage.

One commenter submitted data and information on recent developments in the understanding of the various mechanisms by which a carcinogenic response can be produced in laboratory animals. These comments can be summarized as follows:

Based on the extent of a chemical's interaction with DNA, it appears that chemicals that have a greater propensity to directly interact with DNA are appropriately classified as genotoxic. Those that do not have this propensity to interact directly with DNA, but lead to tumors via recurrent tissue injury or other secondary events are classified as non-genotoxic or epigenetic carcinogens. The carcinogenic risk to man posed by such epigenetic carcinogens appears to be substantially less than that posed by purely genetic carcinogens. Whereas, there has been relatively less disagreement over appropriate measures for the control of those materials categorized as human carcinogens, there has been considerable disagreement among scientists regarding appropriate measures for the control of the numbers materials categorized as animal carcinogens on the basis of tests in rats, mice or hamsters.

The above commenters stated that different risk models should be used to account for the differentiation of carcinogens recognizing different mechanisms. All of these comments reject the CAG risk model because it is too conservative and that both the upper and lower bound risks must be taken into account. In other words, EPA's cancer risk estimation process overstates the potential risk posed by these chemicals in a manner which may mislead the public. Furthermore, they believe that EPA has accepted animal data at face value without any critical review. They recommended that the health criteria documents be subject to

independent peer review before further government and industry resources are spent on discussing approaches to regulate chemicals which may be non-hazardous or pose an insignificant risk.

Three comments were received that recommended EPA should continue to use the CAG model for both genotoxic and nongenotoxic carcinogens. Even though knowledge of the carcinogenic mechanism should be a major factor in selecting the most appropriate risk model, this information is generally not available for environmental carcinogens. One commenter stated that a distinction between carcinogenic mechanisms is arbitrary because there is a lack of experimental data establishing a threshold for non-mutagenic carcinogens or showing that the dose-response curve is different in the lower range from that for substances that cause gene mutations. In addition, thresholds observed in experiments with an inbred animal populations cannot be extrapolated with any degree of certainty to a diverse human population; therefore, no distinction between carcinogenic mechanisms should be made at this time.

One commenter added that the multi-stage model as modified by the Carcinogen Assessment Group (CAG) should be used in establishing MCLs for carcinogens regardless of mechanisms of action. Mathematical models at best provide crude estimates of the risks resulting from exposure to a carcinogen.

The third issue as to how the risk of exposure to two or more VOC's should be considered was addressed by five comments. Four commenters felt that two or more chemicals found to be toxic to the same organ system should be considered to be additive in their cumulative effect on the body. Added margins of safety should then be included in the health basis of each MCL. The magnitude of the safety factor should reflect, where possible, current understanding of synergistic interaction between chemicals and should be considered at least additive in proportion to the absolute and relative levels of exposure. In addition, no evidence has been put forth that suggests that these interactions could never be a problem. One recommended approach was to set an RMCL and MCL for "total VOCs".

One commenter believed that the risk of exposure to two or more VOCs is *not* additive. The reasoning was based on two studies in which two chlorinated solvents were administered simultaneously for 3 to 6 months, in which no synergism was indicated and, in fact, the effects were less than

additive. Thus, the commenter felt that an increase in the margin of safety is not required.

The issue of which subgroup of the general population should be protected received six comments. Three commenters felt that the 10 kg child should be used because adequate protection should be provided to all segments of the general population. Two commenters felt that the 70 kg adult should be the basis for potential MCLs because life-time exposure should be used in the calculation. A 10 kg child is not exposed over a 70-year lifetime. One commenter recommended that if MCLs are warranted, the level should be set to protect all significant populations groups (i.e., children, pregnant women, aged adults, etc.). Also, short term exposure risk calculations should be based on a 10 kg child, long term exposures based on a 70 kg adult, and the worst case would be controlling.

Lastly, the issue as to how exposure to VOCs from other routes should be addressed in the development of RMCLs received eight comments. Five commenters felt that relative source contribution should *not* be a major factor in determining the acceptable

risk. One commenter suggested that EPA state the likely other sources of VOC exposure and average levels. Another commenter put it this way, "The contribution of drinking water to the total exposure to a contaminant should be considered in light of the risk to public health and not in terms of its relative significance to other sources of exposure".

Three comments recommended that the total allowable body burden from all media (air, food and water) should be taken into account, based on health effects data.

Twenty-six comments were received on what level should be set for RMCLs such that "no known or anticipated adverse effects" will result. Twenty-two commenters recommended that the RMCLs for carcinogens be set at zero. Their reasoning was based on the premise that an RMCL is a health goal, which is not intended to reflect cost and feasibility of treatment, and that scientific evidence to date cannot be used to establish a no adverse health effect threshold for carcinogens.

Four commenters recommended that the RMCLs for carcinogens be set at a finite risk level and not zero. Their

reasoning was that every water supply contains at least some of the chemicals listed in the ANPRM. A finite risk level is the only realistic basis. Furthermore, it is impossible to establish with any degree of certainty that the concentration of a contaminant in water is zero, due to limited analytical capability. One commenter stated that, "The question of the level of the RMCL for carcinogens is the most fundamental in the ANPRM. RMCLs are confusing and an RMCL set at zero is not useful because it could not be measured." Instead a regulatory target level (RTL), set as a negligible risk level should be established. The level should be  $10^{-5}$ , based upon the National Academy of Sciences projections, not CAG's."

Another commenter felt that "RMCLs for compounds shown to increase tumors in test animals through non-genetic mechanisms, should be set at a finite number based on the toxicity of the contaminant (i.e., incorporating the threshold concept)".

[FR Doc 84-11004 Filed 6-11-84; 6:15 am]

BILLING CODE 5010-50-M



Environmental Protection Agency

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Tuesday  
June 12, 1984

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**Part VI**

**Environmental  
Protection Agency**

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**Municipal Sludge Management Policy;  
Notice**

**ENVIRONMENTAL PROTECTION  
AGENCY****[WH-FR: 2606-2]****Policy on Municipal Sludge  
Management****AGENCY:** Environmental Protection  
Agency.**ACTION:** Notice of Agency policy on  
municipal sludge management.

**SUMMARY:** The Environmental Protection Agency established a Task Force in 1982 to examine the problems of sewage sludge disposal and utilization, and the need for additional regulations under Section 405 of the Clean Water Act. The policy announced today is a product of that Task Force effort. It will guide the future implementation of the Agency's sewage sludge regulatory and management programs also adopted as a result of the Task Force recommendations. This notice announces a statement of policy to guide the future implementation of the Agency's sewage sludge regulatory and management programs.

**FOR FURTHER INFORMATION CONTACT:**  
Mr. Charles S. Spooner, Office of Water (WH-556), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, (202) 382-7100.

**SUPPLEMENTARY INFORMATION:** Sewage sludge is made up of the residual materials resulting from the treatment of municipal wastewater at publicly owned wastewater treatment plants. The removal of these materials is essential to the operation of these wastewater treatment facilities. Proper utilization and disposal practices in managing sewage sludges are essential to assure the protection of public health and the environment.

The Agency estimates that nearly 7 million tons of dry sludge solids are generated annually. The management of sewage sludge represents a major component of the costs of wastewater treatment. Sewage sludge contains crop nutrients and organic material useful in improving soil productivity. Methane gas can be recovered when sewage sludge is stabilized by anaerobic digestion and when sufficiently dewatered energy can be produced from sludge solids by burning them. The potential benefits from recycling sewage sludge have been well demonstrated. However, concerns over the presence of toxic substances and pathogens in sewage sludge and its possible impacts on human health and the environment require that adequate controls be applied to sludge management practices.

Legal authorities are found in a number of Federal laws for establishing regulatory programs and for setting minimum technical requirements for waste disposal practices. The Agency announces today its intention to consolidate where practicable, its various existing waste management authorities with the broad authorities provided under Section 405 of the Clean Water Act to establish minimum requirements for the control of sewage sludge. These regulations will include coverage of sludge management practices which are not now controlled. In establishing and implementing these requirements, the Agency will actively promote those practices which recycle sewage sludge to recover its resource value.

Various federal laws establish different roles for the Federal and State governments in regulating waste disposal practices. However, no law establishes consistent roles in sludge management across all environmental media and all management practices. In the policy set forth today, EPA establishes the Federal regulatory role in sludge management in the context of the role expected of both State and local governments.

To implement this policy the Agency will provide a continuing program of research and technical assistance. It will also issue general guidelines for sewage sludge disposal and use practices in August of 1984. These guidelines will describe in detail the capabilities of technologies, the current Federal requirements that govern them, and recommended management practices that will help ensure successful operations. The Agency will also issue regulations governing the establishment of State sludge management programs to implement both existing and future controls. The current schedule calls for a draft of these requirements to be released for public comment in July of this year, and proposed rules to be issued in May of 1985. The current technical requirements for individual use and disposal practices are being studied, and new and possibly revised requirements are scheduled to be issued beginning in 1986. The Agency will report the progress of its regulatory efforts through regular channels of public outreach.

The Agency's policy and its continuing sludge management program activities have been reviewed with representatives of State solid waste and water pollution control officials, the EPA Management Advisory Group, the Association of Metropolitan Sewerage Agencies, various environmental groups, and a wide range of other interested

parties. Comments on the policy statement or the Agency's continuing sludge management program should be addressed as noted above.

**Statement of Policy**

The U.S. Environmental Protection Agency (EPA) will actively promote those municipal sludge management practices that provide for the beneficial use of sludge while maintaining or improving environmental quality and protecting public health. To implement this policy, EPA will continue to issue regulations that protect public health and other environmental values. The Agency will use all available authorities to ensure that States establish and maintain programs to ensure that local governments utilize sludge management techniques that are consistent with Federal and State regulations and guidelines. Local communities will remain responsible for choosing among alternative programs, for planning, constructing, and operating facilities to meet their needs, and for ensuring the continuing availability of adequate and acceptable disposal or use capacity.

**Rationale**

Municipal sludge is generated as a consequence of treating municipal wastewater. Nearly 7 million dry tons per year of residual sludge solids are currently produced by publicly owned treatment works. Sludge management is an essential component of wastewater treatment operations and a major element in treatment costs. All options for sludge use and disposal have costs, benefits, and risks. EPA believes that guidance and regulations are the best way to promote good practices for sludge use and disposal that minimize the potential adverse impacts on public health and the environment and maximize the potential benefits. The benefits potentially gained through sludge use include energy and nutrient recovery, soil improvement, and the conservation of valuable natural resources.

Many Federal laws require environmentally sound management of municipal sludge and several of these laws stress the need for sludge utilization and reuse. These include the Clean Water Act; Clean Air Act; Resource Conservation and Recovery Act; Marine Protection, Research and Sanctuaries Act; Toxic Substances Control Act; and the National Environmental Policy Act. Because there is no single legislative approach, a framework for integrating the various Federal laws and regulations is needed to ensure that sludges are used or



disposed of in a consistent, environmentally acceptable, and economically feasible manner. EPA recognizes the need to control the potential impacts of sludge use and disposal practices, and in the past has attempted to guide and control sludge management without such an integrating framework through individual regulations, technical guidance, and research. These efforts have not provided sufficient certainty to the regulatory process, nor have they always guided local governments toward adequate sludge management planning. Accordingly, EPA is issuing this policy statement and taking other steps to help establish a more integrated approach to municipal sludge management at the Federal, State and local level.

#### *Principles Guiding Policy Implementation*

1. EPA believes that the risks, benefits, and costs of all sludge use and disposal practices should be considered on an intermedia basis when formulating and implementing sludge regulations and management programs. Potential short-term and long-term impacts to public health and the environment should be addressed to ensure that the options chosen protect human health and the environment.

2. EPA believes that minimization of potential widespread of irreversible impacts, as well as involuntary hazards, should receive primary emphasis in both regulations and sludge management decisions. Where the risks are uncertain but potentially significant, additional safeguards may be needed.

3. EPA believes that the planning and operation of wastewater and sludge treatment processes should be closely integrated to control both sludge volume and sludge quality.

4. EPA believes that contaminant levels in municipal sludge which interfere with its management should, whenever possible, be controlled at the source through changes in waste

generating activities or through local pretreatment requirements beyond the minimum requirements specified by Federal categorical standards.

5. EPA believes that beneficial sludge use should be the intent of major sludge management technologies of the future and has devoted research in support of them. Regulations and guidelines that establish the requirements for these systems are essential to the wider use of these technologies.

6. EPA believes that in most cases States should have the primary responsibility for implementing regulatory programs for sludge use and disposal which provide for clear and expeditious decision-making, and the States should help local governments and others to develop, implement, and maintain proper sludge management systems.

7. EPA encourages public and private sector development of improved sludge management and pretreatment technologies and practices that increase the number of cost effective and environmentally acceptable sludge management methods available.

#### *Policy Implementation Roles and Responsibilities*

1. *Responsibility for Establishing Basic Regulatory Requirements for Sludge Management Rests with EPA.* EPA will maintain an oversight role and will:

- Integrate and interpret the requirements of the several applicable Federal laws and issue regulations and guidance to ensure that they are applied consistently toward municipal sludge management;
- Establish regulatory requirements that promote beneficial sludge use;
- Provide standards that establish contaminant levels and management practices for acceptable municipal sludge use and disposal;
- Establish minimum requirements for State sludge management programs providing sufficient discretionary

authority for States to tailor their programs and actions to local variation;

- Enforce adherence to Federal requirements where not enforced by States;
- Provide guidance and information on sludge treatment technologies and practices and direct technical assistance to States and local governments;
- Support research and development, and encourage the demonstration of projects to facilitate the advancement and use of new or improved technologies;

#### *2. Responsibility for Ensuring Effective Sludge Management by Local Governments Rests Primarily with Each State.*

- Each State shall establish and maintain a regulatory and oversight program adequate to implement State and Federal requirements;
- Each State should provide active assistance to local governments in planning their sludge management systems.

#### *3. Responsibility to Operate and Maintain Appropriate Sludge Management Systems Rests with Each Municipality.*

- Municipalities are responsible for operating and maintaining sludge management systems which comply with applicable Federal and State regulatory requirements.
- Municipalities are responsible for maintaining sludge use and disposal capacity sufficient to meet the needs of their wastewater treatment systems.
- Municipalities are responsible for controlling the discharge of contaminants into their sewerage systems so that sludge quality is suitable for meeting regulatory requirements and local management objectives.

Dated: May 31, 1984.

William D. Ruckelshaus,  
Administrator.

[FR Doc. 84-11544 Filed 6-11-84; 8:45 am]  
BILLING CODE 6560-50-M



Final Regulations  
for the  
Business and International Education  
Program

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Tuesday  
June 12, 1984

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## Part VII

# Department of Education

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34 CFR Part 661

Business and International Education  
Program; Final Regulations

## DEPARTMENT OF EDUCATION

## 34 CFR Part 661

## Business and International Education Program

AGENCY: Department of Education.

ACTION: Final regulations.

**SUMMARY:** The Secretary of Education issues final regulations for the Business and International Education Program. These regulations implement provisions of Higher Education Amendments of 1980. The regulations provide the procedures and the criteria the Secretary uses to make awards under this program.

**EFFECTIVE DATE:** These regulations will take effect either 45 days after publication in the Federal Register or later if the Congress takes certain adjournments. This effective date may not apply to § 661.20, which contains information collection requirements under review by OMB. If you want to know the effective date of these regulations, call or write the Department of Education contact person.

**FOR FURTHER INFORMATION CONTACT:** Ms. Susanna Easton, International Studies Branch, 400 Maryland Avenue, SW., (Room 3916, ROB-3), Washington, D.C. 20202. Telephone: (202) 245-2794.

**SUPPLEMENTARY INFORMATION:** On February 8, 1984, the Secretary published in the Federal Register, at 49 FR 4920-4923, a notice of proposed rulemaking for the Business and International Education Program. These regulations govern the program of assistance authorized under Title VI-B of the Higher Education Act of 1965, as amended (HEA)—20 U.S.C 1130-1130b. The purpose of the program is:

(1) To promote the Nation's capacity for international understanding and economic enterprise through the provision of suitable international education and training for business personnel in various stages of professional development; and

(2) To promote institutional and non-institutional educational and training activities that will contribute to the ability of United States businesses to prosper in an international economy.

Interested persons were given 45 days in which to comment on the regulations. Three comments were received. Except for some nonsubstantive technical changes, the final regulations are the same as the proposed rules. The following is a summary of the comments and the Secretary's response to the comments:

*Comment:* Three commenters suggested that paragraph (c) under § 661.10 is restrictive and limits support for curriculum development at certain institutions.

*Response:* No change is made in the regulations. Section 661.10(c) is a restatement of section 612(b)(3) of the Act authorizing the program, i.e., the HEA. Moreover, the activities listed in § 661.10 are an illustrative rather than an exhaustive list of allowable activities. Therefore, other institutions are not precluded from being funded to carry out the activities described in § 661.10(c).

## Executive Order 12291

These regulations have been reviewed in accordance with Executive Order 12291. They are classified as non-major because they do not meet the criteria for major regulations established in the Order.

## Regulatory Flexibility Act

The Secretary certifies that these regulations will not have a significant economic impact on a substantial number of small entities. These regulations include minimally burdensome rules for applying for assistance under this program.

## Assessment of Educational Impact

In the Notice of Proposed Rulemaking the Secretary requested comments on whether the proposed regulations would require submission of information that is already being gathered by or is available for any other agency or authority of the United States.

Based on the absence of any comments on this matter and the Department's own review, the Secretary has determined that the regulations in this document do not require information that is already being gathered by or is available from any other agency or authority of the United States.

## Paperwork Reduction Act of 1980

In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96-511), the information collection requirements that are included in these regulations will be submitted for approval to the Office of Management and Budget (OMB). The requirements in § 661.20 do not take effect until OMB approval has been obtained and the public has been notified through a notice published in the Federal Register.

## List of Subjects in 34 CFR Part 661

Business and industry, Commerce abroad, Colleges and universities, Linkages, Export education, Foreign

trade, Internationalization of curricula, Agreement, Matching funds.

**Citation of legal authority:** A citation of statutory or other legal authority is placed in parentheses on the line following each substantive provision of these regulations.

Dated: June 4, 1984.

(Catalog of Federal Domestic Assistance Number—Business and International Education Program, 84.153)

T. H. Bell,  
Secretary of Education.

The Secretary of Education amends Title 34 of the Code of Federal Regulations to add a new Part 661 to read as follows:

## PART 661—BUSINESS AND INTERNATIONAL EDUCATION PROGRAM

## Subpart A—General

Sec.

- 661.1 What is the Business and International Education Program?
- 661.2 Who is eligible to apply for a grant under the Business and International Education Program?
- 661.3 What regulations apply to the Business and International Education Program?
- 661.4 What definitions apply to the Business and International Education Program?

## Subpart B—What Kinds of Activities Does the Secretary Assist Under This Program?

- 661.10 What activities does the Secretary assist under this program?

## Subpart C—How Does One Apply for a Grant?

- 661.20 What must an application include?

## Subpart D—How Does the Secretary Make a Grant?

- 661.30 How does the Secretary evaluate an application?
- 661.31 What selection criteria does the Secretary use?
- 661.32 What priorities may the Secretary establish?

## Subpart E—What Conditions Must be Met by a Grantee?

- 661.40 What are the matching requirements?

**Authority:** Sections 611-613 of the Higher Education Act of 1965, as amended, 20 U.S.C. 1130-1130b, unless otherwise noted.

## Subpart A—General

## § 661.1 What is the Business and International Education Program?

The Business and International Education Program is designed to promote linkages between institutions of higher education and American businesses engaged in international economic activities. The purpose of each project assisted under this Part is both

to enhance the international academic programs of institutions of higher education, and to provide appropriate services to the business community that will enable it to expand its capacity to sell its goods and services outside the United States.

(20 U.S.C. 1130)

**§ 661.2 Who is eligible to apply for a grant under the Business and International Education Program?**

Under this program the Secretary considers applications from institutions of higher education that have entered into agreements with business enterprises, trade organizations or associations engaged in international economic activity—or a combination or consortium of these enterprises, organizations or associations—for the purposes of pursuing the activities authorized under this program.

(20 U.S.C. 1130a)

**§ 661.3 What regulations apply to the Business and International Education Program?**

The following regulations apply to this program:

- (a) The regulations in 34 CFR Part 655.
  - (b) The Education Department General Administrative Regulations (EDGAR) in 34 CFR Parts 74, 75, 77, 78 and 79.
  - (c) The regulations in this Part 661.
- (20 U.S.C. 1130-1130a)

**§ 661.4 What definitions apply to the Business and International Education Program?**

(a) *Definitions in EDGAR.* The following terms used in this part are defined in 34 CFR Part 77:

Applicant  
Application  
Award  
Budget  
Contract  
EDGAR  
Equipment  
Facilities  
Fiscal Year  
Grant  
Grantee  
Nonprofit  
Profit  
Private  
Public  
Secretary  
Supplies

(b) *Definitions in 34 CFR Part 655.* The following terms used in this part are defined in 34 CFR Part 655.4(b):

Combinations of institutions  
Institution of higher education

(20 U.S.C. 1130-1130a)

**Subpart B—What Kinds of Activities Does the Secretary Assist Under This Program?**

**§ 661.10 What activities does the Secretary assist under this program?**

The activities that the Secretary may assist institutions of higher education to conduct under this program, include but are not limited to—

(a) Innovation and improvement of international education curricula to serve the needs of the business community, including the development of new programs for nontraditional, mid-career, or part-time students;

(b) Development of programs to inform the public of increasing international economic interdependence and the role of American business within the international economic system;

(c) Internationalization of curricula at junior and community colleges, and at undergraduate and graduate schools of business;

(d) Development of area studies programs and interdisciplinary international programs;

(e) Establishment of export education programs through cooperative arrangements with regional and world trade centers and councils, and with bilateral and multilateral trade associations;

(f) Research for and development of teaching materials relating to international education, including language materials, and facilities appropriate to business-oriented students;

(g) Establishment of student and faculty fellowships and internships for training and education in international business activities;

(h) Development of opportunities for business and other professional school junior faculty to acquire or strengthen international skills and perspectives; and

(i) Development of research programs on issues of common interest to institutions of higher education and private sector organizations and associations engaged in or promoting international economic activity.

(20 U.S.C. 1130a)

**Subpart C—How Does One Apply for a Grant**

**§ 661.20 What must an application include?**

An institution that applies for a grant under this program shall include the following in its application:

(a)(1) A copy of the agreement between the applicant and the other party or parties described in § 661.2 for

the purpose of carrying out the activities for which the applicant seeks assistance.

(2) The agreement must be signed by all parties and it must describe the manner in which the business enterprise, trade association, or organization will assist in carrying out the activities proposed in the application.

(b) An assurance that the applicant will use the funds to supplement and not to supplant activities conducted by the applicant.

(20 U.S.C. 1130a)

**Subpart D—How Does the Secretary Make a Grant?**

**§ 661.30 How does the Secretary evaluate an application?**

(a) The Secretary evaluates an application for a grant under this program on the basis of the criteria in § 661.31.

(b) The Secretary awards up to 100 possible points for these criteria. The maximum possible points for each criterion are shown in parentheses.

(20 U.S.C. 1130a)

**§ 661.31 What selection criteria does the Secretary use?**

The Secretary uses the following criteria to evaluate applications for a grant under this program.

(a) *Plan of operation.* (Maximum 30 points) (See 34 CFR 655.31(a).)

(b) *Qualifications of the key personnel.* (Maximum 10 points) (See 34 CFR 655.31(b).)

(c) *Budget and cost effectiveness.* (Maximum 15 points) (See 34 CFR 655.31(c).)

(d) *Evaluation plan.* (Maximum 15 points) (See 34 CFR 655.31(d).)

(e) *Adequacy of resources.* (Maximum 10 points) (See 34 CFR 655.31(e).)

(f) *Need for the project.* (Maximum 20 points)

The Secretary reviews each application for information that shows the need for the project, and the extent to which the proposed project will promote linkages between institutions of higher education and the business community involved in international economic activities.

(20 U.S.C. 1130a)

**§ 661.32 What priorities may the Secretary establish?**

(a) The Secretary may each year establish priorities for funding from the activities described in § 661.10.

(b) The Secretary announces any priorities in the application notice published in the Federal Register.

(20 U.S.C. 1130a)

**Subpart E—What Conditions Must be  
Met by a Grantee?**

**§ 661.40 What are the matching  
requirements?**

A grantee shall pay a minimum of 50  
percent of the cost of the project for  
each fiscal year.

(20 U.S.C. 1130a)

[FR Doc. 84-15004 Filed 6-11-84; 8:45 am]

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