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Presidential Documents

Title 3—

The President

Executive Order 12898 of February 11, 1994

Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1–1. IMPLEMENTATION.

1–101. *Agency Responsibilities.* To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.

1–102. *Creation of an Interagency Working Group on Environmental Justice* (a) Within 3 months of the date of this order, the Administrator of the Environmental Protection Agency ("Administrator") or the Administrator's designee shall convene an interagency Federal Working Group on Environmental Justice ("Working Group"). The Working Group shall comprise the heads of the following executive agencies and offices, or their designees: (a) Department of Defense; (b) Department of Health and Human Services; (c) Department of Housing and Urban Development; (d) Department of Labor; (e) Department of Agriculture; (f) Department of Transportation; (g) Department of Justice; (h) Department of the Interior; (i) Department of Commerce; (j) Department of Energy; (k) Environmental Protection Agency; (l) Office of Management and Budget; (m) Office of Science and Technology Policy; (n) Office of the Deputy Assistant to the President for Environmental Policy; (o) Office of the Assistant to the President for Domestic Policy; (p) National Economic Council; (q) Council of Economic Advisers; and (r) such other Government officials as the President may designate. The Working Group shall report to the President through the Deputy Assistant to the President for Environmental Policy and the Assistant to the President for Domestic Policy.

(b) The Working Group shall: (1) provide guidance to Federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(2) coordinate with, provide guidance to, and serve as a clearinghouse for, each Federal agency as it develops an environmental justice strategy as required by section 1–103 of this order, in order to ensure that the administration, interpretation and enforcement of programs, activities and policies are undertaken in a consistent manner;

(3) assist in coordinating research by, and stimulating cooperation among, the Environmental Protection Agency, the Department of Health and Human Services, the Department of Housing and Urban Development, and other agencies conducting research or other activities in accordance with section 3–3 of this order;

(4) assist in coordinating data collection, required by this order;

(5) examine existing data and studies on environmental justice;

(6) hold public meetings as required in section 5–502(d) of this order; and

(7) develop interagency model projects on environmental justice that evidence cooperation among Federal agencies.

1–103. *Development of Agency Strategies.* (a) Except as provided in section 6–605 of this order, each Federal agency shall develop an agency-wide environmental justice strategy, as set forth in subsections (b)–(e) of this section that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The environmental justice strategy shall list programs, policies, planning and public participation processes, enforcement, and/or rulemakings related to human health or the environment that should be revised to, at a minimum: (1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensure greater public participation; (3) improve research and data collection relating to the health of and environment of minority populations and low-income populations; and (4) identify differential patterns of consumption of natural resources among minority populations and low-income populations. In addition, the environmental justice strategy shall include, where appropriate, a timetable for undertaking identified revisions and consideration of economic and social implications of the revisions.

(b) Within 4 months of the date of this order, each Federal agency shall identify an internal administrative process for developing its environmental justice strategy, and shall inform the Working Group of the process.

(c) Within 6 months of the date of this order, each Federal agency shall provide the Working Group with an outline of its proposed environmental justice strategy.

(d) Within 10 months of the date of this order, each Federal agency shall provide the Working Group with its proposed environmental justice strategy.

(e) Within 12 months of the date of this order, each Federal agency shall finalize its environmental justice strategy and provide a copy and written description of its strategy to the Working Group. During the 12 month period from the date of this order, each Federal agency, as part of its environmental justice strategy, shall identify several specific projects that can be promptly undertaken to address particular concerns identified during the development of the proposed environmental justice strategy, and a schedule for implementing those projects.

(f) Within 24 months of the date of this order, each Federal agency shall report to the Working Group on its progress in implementing its agency-wide environmental justice strategy.

(g) Federal agencies shall provide additional periodic reports to the Working Group as requested by the Working Group.

1–104. *Reports to the President.* Within 14 months of the date of this order, the Working Group shall submit to the President, through the Office of the Deputy Assistant to the President for Environmental Policy and the Office of the Assistant to the President for Domestic Policy, a report that describes the implementation of this order, and includes the final environmental justice strategies described in section 1–103(e) of this order.

Sec. 2–2. FEDERAL AGENCY RESPONSIBILITIES FOR FEDERAL PROGRAMS. Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including popu-

lations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

Sec. 3–3. RESEARCH, DATA COLLECTION, AND ANALYSIS.

3–301. *Human Health and Environmental Research and Analysis.* (a) Environmental human health research, whenever practicable and appropriate, shall include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority populations, low-income populations and workers who may be exposed to substantial environmental hazards.

(b) Environmental human health analyses, whenever practicable and appropriate, shall identify multiple and cumulative exposures.

(c) Federal agencies shall provide minority populations and low-income populations the opportunity to comment on the development and design of research strategies undertaken pursuant to this order.

3–302. *Human Health and Environmental Data Collection and Analysis.* To the extent permitted by existing law, including the Privacy Act, as amended (5 U.S.C. section 552a): (a) each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, Federal agencies shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(b) In connection with the development and implementation of agency strategies in section 1–103 of this order, each Federal agency, whenever practicable and appropriate, shall collect, maintain and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding facilities or sites expected to have a substantial environmental, human health, or economic effect on the surrounding populations, when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action. Such information shall be made available to the public, unless prohibited by law; and

(c) Each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding Federal facilities that are: (1) subject to the reporting requirements under the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. section 11001–11050 as mandated in Executive Order No. 12856; and (2) expected to have a substantial environmental, human health, or economic effect on surrounding populations. Such information shall be made available to the public, unless prohibited by law.

(d) In carrying out the responsibilities in this section, each Federal agency, whenever practicable and appropriate, shall share information and eliminate unnecessary duplication of efforts through the use of existing data systems and cooperative agreements among Federal agencies and with State, local, and tribal governments.

Sec. 4–4. SUBSISTENCE CONSUMPTION OF FISH AND WILDLIFE.

4–401. *Consumption Patterns.* In order to assist in identifying the need for ensuring protection of populations with differential patterns of subsistence consumption of fish and wildlife, Federal agencies, whenever practicable and appropriate, shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. Federal agencies shall communicate to the public the risks of those consumption patterns.

4–402. *Guidance.* Federal agencies, whenever practicable and appropriate, shall work in a coordinated manner to publish guidance reflecting the latest scientific information available concerning methods for evaluating the human health risks associated with the consumption of pollutant-bearing fish or wildlife. Agencies shall consider such guidance in developing their policies and rules.

Sec. 5–5. PUBLIC PARTICIPATION AND ACCESS TO INFORMATION. (a) The public may submit recommendations to Federal agencies relating to the incorporation of environmental justice principles into Federal agency programs or policies. Each Federal agency shall convey such recommendations to the Working Group.

(b) Each Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations.

(c) Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public.

(d) The Working Group shall hold public meetings, as appropriate, for the purpose of fact-finding, receiving public comments, and conducting inquiries concerning environmental justice. The Working Group shall prepare for public review a summary of the comments and recommendations discussed at the public meetings.

Sec. 6–6. GENERAL PROVISIONS.

6–601. *Responsibility for Agency Implementation.* The head of each Federal agency shall be responsible for ensuring compliance with this order. Each Federal agency shall conduct internal reviews and take such other steps as may be necessary to monitor compliance with this order.

6–602. *Executive Order No. 12250.* This Executive order is intended to supplement but not supersede Executive Order No. 12250, which requires consistent and effective implementation of various laws prohibiting discriminatory practices in programs receiving Federal financial assistance. Nothing herein shall limit the effect or mandate of Executive Order No. 12250.

6–603. *Executive Order No. 12875.* This Executive order is not intended to limit the effect or mandate of Executive Order No. 12875.

6–604. *Scope.* For purposes of this order, Federal agency means any agency on the Working Group, and such other agencies as may be designated by the President, that conducts any Federal program or activity that substantially affects human health or the environment. Independent agencies are requested to comply with the provisions of this order.

6–605. *Petitions for Exemptions.* The head of a Federal agency may petition the President for an exemption from the requirements of this order on the grounds that all or some of the petitioning agency's programs or activities should not be subject to the requirements of this order.

6–606. *Native American Programs.* Each Federal agency responsibility set forth under this order shall apply equally to Native American programs. In addition, the Department of the Interior, in coordination with the Working Group, and, after consultation with tribal leaders, shall coordinate steps to be taken pursuant to this order that address Federally-recognized Indian Tribes.

6–607. *Costs.* Unless otherwise provided by law, Federal agencies shall assume the financial costs of complying with this order.

6–608. *General.* Federal agencies shall implement this order consistent with, and to the extent permitted by, existing law.

6–609. *Judicial Review.* This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it create any right, benefit, or trust responsibility, substantive or procedural,

enforceable at law or equity by a party against the United States, its agencies, its officers, or any person. This order shall not be construed to create any right to judicial review involving the compliance or noncompliance of the United States, its agencies, its officers, or any other person with this order.

William J. Clinton

THE WHITE HOUSE,
February 11, 1994.

[FR Doc. 94–3685
Filed 2–14–94; 3:07 pm]
Billing code 3195–01–P

Editorial note: For the memorandum that was concurrently issued on Federal environmental program reform, see issue No. 6 of the *Weekly Compilation of Presidential Documents.*

Rules and Regulations

Federal Register
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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 74

[Docket No. 92C–0292]

Listing of Color Additives Subject to Certification; FD&C Red No. 40

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is amending the color additive regulations to provide for the safe use of FD&C Red No. 40 and FD&C Red No. 40 Aluminum Lake for coloring drugs and cosmetics intended for use in the area of the eye. This action is in response to a petition filed by The Cosmetic, Toiletry, and Fragrance Association (CFTA).

DATES: Effective February 17, 1994, except as to any provisions that may be stayed by the filing of proper objections; written objections and requests for a hearing by March 18, 1994.

ADDRESSES: Submit written objections to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: Robert L. Martin, Center for Food Safety and Applied Nutrition (HFS–217), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202–254–9519.

SUPPLEMENTARY INFORMATION:

I. Introduction

In a notice published in the **Federal Register** of August 11, 1992 (57 FR 35833), FDA announced that a color additive petition (CAP 6C0203) had been filed by CTFA, 1101 17th St. NW., suite 300, Washington, DC 20036, proposing that the color additive regulations for FD&C Red No. 40 be amended to provide for the safe use of FD&C Red No. 40 and its lakes for coloring drugs and cosmetics intended for use in the area of the eye. The petition was filed under section 721 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 379e). CTFA later amended the petition to limit the lakes requested for eye area use to the FD&C Aluminum Lake prepared in accordance with § 82.51 (21 CFR 82.51).

II. Definitions

Section 70.3(s) (21 CFR 70.3(s)) defines the term "area of the eye" as "the area enclosed within the circumference of the supra-orbital ridge and the infra-orbital ridge, including the eyebrow, the skin below the eyebrow, the eyelids and the eyelashes, and conjunctival sac of the eye, the eyeball, and the soft areolar tissue that lies within the perimeter of the infra-orbital ridge."

The term "lake" is defined in § 70.3(l) as "a straight color extended on a substratum by adsorption, coprecipitation, or chemical combination that does not include any combination of ingredients made by simple mixing process."

III. Background

Section 70.5(a) (21 CFR 70.5(a)) states that "No listing or certification of a color additive shall be considered to authorize the use of any such color additive in any article intended for use in the area of the eye unless such listing or certification of such color additive specifically provides for such use." The petitioner has requested that FD&C Red No. 40 and FD&C Red No. 40 Aluminum Lake be listed for use in the area of the eye.

Part 82 (21 CFR part 82) lists the certifiable provisionally listed colors and specifications, and includes a description of and specifications for the lakes that are permitted for use in foods (§ 82.51) and in drugs and cosmetics (§ 82.1051). Sections 82.51 and 82.1051 list the acceptable lakes that can be combined with the straight colors listed therein. The petitioner has requested that this order be limited to the Aluminum Lake of FD&C Red No. 40, prepared in accordance with § 82.51. Section 82.51 also limits to alumina the substrata that can be used for FD&C lakes.

IV. Safety

In its evaluation of the safety of the proposed use of the subject color additive, FDA has considered the safety data submitted to support current listings for the use of FD&C Red No. 40 in foods, drugs, and cosmetics. FDA has also evaluated ocular toxicity studies submitted to support eye area use of the color additive and its aluminum lake. The agency has determined that the petitioned use is safe because no adverse effects were found in these studies at levels relevant to the petitioned use.

V. Conclusions

Based on data contained in the petition and other relevant information, FDA concludes that there is a reasonable certainty that no harm will result from the use of FD&C Red No. 40 and FD&C Red No. 40 Aluminum Lake as color additives in the area of the eye, and that the additives are safe for their intended use. The agency also concludes on the basis of available data that the color additive will perform its intended effect and thus is suitable for the petitioned uses. The agency, therefore, is amending the color additive regulations in §§ 74.1340(b) and 74.2340(b) (21 CFR 74.1340(b) and 74.2340(b)) to provide for the use of FD&C Red No. 40 and FD&C Red No. 40 Aluminum Lake in drugs and cosmetics intended for use in the area of the eye.

This document provides for the permanent listing of the aluminum lake of FD&C Red No. 40 for use in the area of the eye. Other uses of the lakes of FD&C Red No. 40 are already permanently listed under §§ 74.1340 and 74.2340. The agency notes that §§ 74.1340(a)(3) and 74.2340(a)(2) refer to §§ 82.51 and 82.1051 for the manufacturing process and specifications for the lakes of FD&C Red No. 40. While the agency recognizes that this referral is to a section that is designated as provisional, FDA considers this referral to be appropriate because that section defines current good manufacturing practice and provides appropriate specifications to ensure the quality and purity of lakes made with the color additive. The agency has under consideration an action to permanently list all lakes that have been provisionally listed under parts 81 and 82. When that action is

completed, FDA intends to amend this referral as appropriate.

VI. Inspection of Documents

In accordance with § 71.15 (21 CFR 71.15), the petition and the documents that FDA considered and relied upon in reaching its decision to list the petitioned uses are available for inspection at the Center for Food Safety and Applied Nutrition (address above) by appointment with the information contact person listed above. As provided in § 71.15, the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

VII. Environmental Impact

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

VIII. Objections

Any person who will be adversely affected by this regulation may at any time on or before March 18, 1994, file with the Dockets Management Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday. FDA will publish notice of the objections that the agency has received or lack thereof in the **Federal Register**.

List of Subjects in 21 CFR Part 74

Color additives, Cosmetics, Drugs.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 74 is amended as follows:

PART 74—LISTING OF COLOR ADDITIVES SUBJECT TO CERTIFICATION

1. The authority citation for 21 CFR part 74 is revised to read as follows:

Authority: Secs. 201, 401, 402, 403, 409, 501, 502, 505, 601, 602, 701, 721 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321, 341, 342, 343, 348, 351, 352, 355, 361, 362, 371, 379e).

2. Section 74.1340 is amended by revising paragraph (b) to read as follows:

§ 74.1340 FD&C Red No. 40.

* * * * *

(b) *Uses and restrictions.* (1) FD&C Red No. 40 and FD&C Red No. 40 Aluminum Lake may be safely used in coloring drugs, including those intended for use in the area of the eye, subject to the restrictions on the use of color additives in § 70.5(b) and (c) of this chapter, in amounts consistent with current good manufacturing practice.

(2) Other lakes of FD&C Red No. 40 may be safely used in coloring drugs, subject to the restrictions on the use of color additives in § 70.5 of this chapter, in amounts consistent with current good manufacturing practice.

* * * * *

3. Section 74.2340 is amended by revising paragraph (b) to read as follows:

§ 74.2340 FD&C Red No. 40.

* * * * *

(b) *Uses and restrictions.* FD&C Red No. 40 may be safely used in coloring cosmetics generally, except that only FD&C Red No. 40 and FD&C Red No. 40 Aluminum Lake may be safely used in coloring cosmetics intended for use in the area of the eye. These uses are subject to the following restrictions:

(1) The color additive may be used in amounts consistent with current good manufacturing practice.

(2) The color additive shall not be exposed to oxidizing or reducing agents that may affect the integrity of the color additives or any other condition that may affect their integrity.

Dated: February 9, 1994.

Michael R. Taylor,

Deputy Commissioner for Policy.

[FR Doc. 94–3553 Filed 2–15–94; 8:45 am]

BILLING CODE 4160–01–F

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21 CFR Part 74

[Docket No. 92C–0295]

Listing of Color Additives Subject to Certification; FD&C Blue No. 1

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is amending the color additive regulations to provide for the safe use of FD&C Blue No. 1 and FD&C Blue No. 1 Aluminum Lake for coloring drugs and cosmetics intended for use in the area of the eye. This action is in response to a petition filed by the Cosmetic, Toiletry, and Fragrance Association (CTFA).

DATES: Effective February 17, 1994, except as to any provisions that may be stayed by the filing of proper objections; written objections and requests for a hearing by March 18, 1994.

ADDRESSES: Submit written objections to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 1–23, 12420 Parklawn Dr., Rockville, MD 20857.

FOR FURTHER INFORMATION CONTACT: Robert L. Martin, Center for Food Safety and Applied Nutrition (HFS–217), Food and Drug Administration, 200 C St. SW. Washington, DC 20204, 202–254–9519.

SUPPLEMENTARY INFORMATION:

I. Introduction

In a notice published in the **Federal Register** of August 11, 1992 (57 FR 35833), FDA announced that a color additive petition (CAP 6C0206) had been filed by CTFA, 1101 17th St. NW., suite 300, Washington, DC 20036. The petition proposed that the color additive regulations for FD&C Blue No. 1 be amended to provide for the safe use of FD&C Blue No. 1 and its lakes for coloring drugs and cosmetics intended for use in the area of the eye. The petition was filed under section 721 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 379e). CTFA later amended the petition to limit the lakes requested for eye area use to FD&C Blue No. 1 Aluminum Lake prepared in accordance with § 82.51 (21 CFR 82.51).

II. Definitions

Section 70.3(s) (21 CFR 70.3(s)) defines the term "area of the eye" as

"the area enclosed within the circumference of the supra-orbital ridge and the infra-orbital ridge, including the eyebrow, the skin below the eyebrow, the eyelids and the eyelashes, and conjunctival sac of the eye, the eyeball, and the soft areolar tissue that lies within the perimeter of the infra-orbital ridge." The term "lake" is defined in § 70.3(l) as "straight color extended on a substratum by adsorption, coprecipitation, or chemical combination that does not include any combination of ingredients made by simple mixing process."

III. Background

Section 70.5(a) (21 CFR 70.5(a)) states that "No listing or certification of a color additive shall be considered to authorize the use of any such color additive in any article intended for use in the area of the eye unless such listing or certification of such color additive specifically provides for such use." The regulations, in § 81.1 (21 CFR 81.1), state that the color additive lakes listed therein may not be used in products that are intended to be used in the area of the eye. The petitioner has requested that the uses for FD&C Blue No. 1 and FD&C Blue No. 1 Aluminum Lake be expanded to include uses in the area of the eye.

Part 82 (21 CFR part 82) lists the certified provisionally listed colors and specifications and includes a description of, and specifications for, the lakes that are permitted for use in foods (§ 82.51) and in drugs and cosmetics (§ 82.1051). Sections 82.51 and 82.1051 list the acceptable lakes that can be combined with the straight colors listed therein. The petitioner has requested that this order be limited to the Aluminum Lake of FD&C Blue No. 1, prepared in accordance with § 82.51 Section 82.51 also limits the substrata that can be used for FD&C lakes to alumina.

IV. Safety

In its evaluation of the safety of the proposed use of the subject color additive, FDA has considered the safety data submitted previously to support current listings for the use of FD&C Blue No. 1 in foods, drugs, and cosmetics. FDA also evaluated ocular toxicity studies submitted to support eye area use of the color additive and its aluminum lake. FDA has determined that the petitioned use is safe, because no adverse effects were found in these studies at levels relevant to the petitioned use

V. Conclusions

Based on data contained in the petition and other relevant material, FDA concludes that there is a reasonable certainty that no harm will result from the use of FD&C Blue No. 1 and FD&C Blue No. 1 Aluminum Lake as color additives in the area of the eye, and that the additives are safe for their intended use. The agency also concludes on the basis of available data that the color additive will perform its intended effect and thus is suitable for the petitioned uses. The agency, therefore, is amending the color additive regulations in §§ 74.1101(c) and 74.2101(c) (21 CFR 74.1101(c) and 74.2101(c)) to provide for the use of FD&C Blue No. 1 and FD&C Blue No. 1 Aluminum Lake in drugs and cosmetics, respectively, intended for use in the area of the eye.

This document provides for the permanent listing of the aluminum lake of FD&C Blue No. 1 for use in the area of the eye. Other uses of the lakes of FD&C Blue No. 1 are provisionally listed under §§ 81.1, 82.51, 82.101, and 82.1051. The agency notes that §§ 74.1101(b)(2) and 74.2101(b)(2) refer to §§ 82.51 and 82.1051 for the manufacturing process and specifications for the lakes of FD&C Blue No. 1. While the agency recognizes that this referral is to a section that is designated as provisional, FDA considers this referral to be appropriate because that section defines current good manufacturing practice and provides appropriate specifications to ensure the quality and purity of lakes made with the color additive. The agency has under consideration an action to permanently list all lakes that have been provisionally listed under parts 81 and 82. When that action is completed, FDA intends to amend this referral as appropriate.

VI. Inspection of Documents

In accordance with § 71.15 (21 CFR 71.15), the petition and the documents that FDA considered and relied upon in reaching its decision to list the petitioned uses are available for inspection at the Center for Food Safety and Applied Nutrition (address above) by appointment with the information contact person listed above. As provided in § 71.15, the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection

VII. Environmental Impact

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

VIII. Objections

Any person who will be adversely affected by this regulation may at any time on or before March 18, 1994, file with the Dockets Management Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday FDA will publish notice of the objections that the agency has received or lack thereof in the **Federal Register**

List of Subjects in 21 CFR Part 74

Color additives, Cosmetics, Drugs.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 74 is amended as follows:

PART 74—LISTING OF COLOR ADDITIVES SUBJECT TO CERTIFICATION

1. The authority citation for 21 CFR part 74 continues to read as follows.

Authority: Secs. 201, 401, 402 403 409 501, 502, 505, 601, 602, 701, 721 of the Federal Food, Drug, and Cosmetic Act (21

U.S.C. 321, 341, 342, 343, 348, 351, 352, 355, 361, 362, 371, 379e).

2. Section 74.1101 is amended by revising paragraphs (b) and (c) to read as follows:

§ 74.1101 FD&C Blue No. 1.

* * * * *

(b) *Specifications.* (1) The color additive FD&C Blue No. 1 for use in coloring drugs generally shall conform in specifications to the requirements of § 74.101(b).

(2) FD&C Blue No. 1 Aluminum Lake shall be prepared in accordance with the requirements of § 82.51 of this chapter.

(c) *Uses and restrictions.* (1) FD&C Blue No. 1 may be safely used for coloring drugs, including drugs intended for use in the area of the eye, in amounts consistent with current good manufacturing practice.

(2) FD&C Blue No. 1 Aluminum Lake may be safely used for coloring drugs intended for use in the area of the eye, in amounts consistent with current good manufacturing practice, subject to the restrictions on the use of color additives in § 70.5(b) and (c) of this chapter.

* * * * *

3. Section 74.2101 is amended by revising paragraphs (b) and (c) to read as follows:

§ 74.2101 FD&C Blue No. 1.

* * * * *

(b) *Specifications.* (1) The color additive FD&C Blue No. 1 shall conform in specifications to the requirements of § 74.101(b).

(2) FD&C Blue No. 1 Aluminum Lake shall be prepared in accordance with the requirements of § 82.51 of this chapter.

(c) *Uses and restrictions.* (1) FD&C Blue No. 1 may be safely used for coloring cosmetics generally, including cosmetics intended for use in the area of the eye, in amounts consistent with current good manufacturing practice.

(2) FD&C Blue No. 1 Aluminum Lake may be safely used for coloring cosmetics intended for use in the area of the eye, in amounts consistent with current good manufacturing practice.

* * * * *

Dated: February 9, 1994.

Michael R. Taylor,

Deputy Commissioner for Policy.

[FR Doc. 94–3554 Filed 2–15–94; 8:45 am]

BILLING CODE 4160–01–F

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Public and Indian Housing

24 CFR Parts 905, 962 and 984

[Docket No. R–94–1633; FR–2961–C–05]

RIN 2577–AB15

Family Self-Sufficiency Program; Correction

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Interim rule; correction.

SUMMARY: On May 27, 1993 (58 FR 30858), the Department published in the **Federal Register** an interim rule that implemented the requirements and procedures that will govern local Family Self-Sufficiency programs beginning or continuing in Federal fiscal year 1993. The Department also published a final rule which adopted the interim rule as the final regulations for the Family Self-Sufficiency Program, and which final rule will be effective on May 27, 1994 (one year from the date of publication in accordance with the program's authorizing legislation). (The interim rule was effective 30 days from the date of publication and solicited public comment.)

The purpose of this document is to correct technical errors contained in the May 27, 1993 interim rule.

EFFECTIVE DATE: June 28, 1993.

FOR FURTHER INFORMATION CONTACT: For section 8 issues: Madeline Hastings, Director, Rental Assistance Division, room 4204. Telephone number (202) 708–2841.

For public housing management issues: Edward Whipple, Director, Occupancy Division, room 4206. Telephone number (202) 708–0744.

For Indian Housing issues: Dominic Nessi, Director, Office of Indian Housing, room 4140. Telephone number (202) 708–1015.

For supportive service issues: Paula Blunt, Supportive Services Coordinator, Office of Resident Initiatives, room 4112. Telephone number (202) 708–4214.

The address for each of these contacts is the Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410. The telephone numbers listed are not toll-free numbers. Hearing-impaired persons may contact these offices via TDD by calling (202) 708–9300 or 1–(800) 877–339.

SUPPLEMENTARY INFORMATION: On May 27, 1993 (58 FR 30858), the Department published in the **Federal Register** an interim rule that implemented the requirements and procedures that will govern local Family Self-Sufficiency (FSS) programs beginning or continuing in Federal fiscal year (FY) 1993. The Department also published a final rule which adopted the interim rule as the final regulations for the Family Self-Sufficiency Program, and which final rule will be effective on May 27, 1994 (one year from the date of publication in accordance with the program's authorizing legislation). (The interim rule was effective 30 days from the date of publication and solicited public comment.)

The purpose of this document is to correct editorial errors contained in the May 27, 1993 interim rule. The following provides a summary of the corrections that are being made by this document.

Corrections 1 and 2. Section 106(j) of the Housing and Community Development Act of 1992 (Pub. L. 102–550, approved October 28, 1992) made operation of a local FSS program optional for Indian housing authorities (IHAs) for the Indian housing program. For the Indian housing program, the FSS rule provides that IHAs that elect to operate local FSS programs are not subject to minimum program size requirements as are housing agencies (HAs) other than IHAs. Note that the part 962 regulations, which are the regulations applicable to the public housing FSS program, contain a section concerning minimum program size requirements—24 CFR 962.105 (Minimum program size). (See table of sections at 58 FR 30889.) No comparable section, however, is contained in the Indian housing FSS regulations. (See table of sections at 58 FR 30883).

Two provisions in the Indian housing FSS regulations inadvertently make reference to minimum program size requirements—paragraph (a)(2) in § 905.3020 (Program implementation) and § 905.3021 (Administrative fees). (See 58 FR 30887, first column for both citations.) The last sentence of paragraph (a)(1) of § 905.3020 also uses the phrase "families *required* to be served" (emphasis added) which indicates that IHAs are subject to minimum program size requirements. Accordingly, the reference to minimum program size requirements in these two sections is incorrect, and is removed by this notice.

In addition, § 905.3021 (Administrative fees) also contains a missing word. This section provides that the performance funding system (PFS) shall provide for the inclusion of "reasonable and administrative costs."

The correct phrase should be "reasonable and *eligible* administrative costs."

Corrections 3, 10 and 19. In each of the three FSS rules (the Indian housing FSS rule, the public housing FSS rule, and the section 8 FSS rule), the phrase, "without good cause," should have been inserted where the rule discusses termination of the FSS contract of participation on the basis of the family's failure to comply with the contract terms. Accordingly, this phrase is added to § 905.3022 (b)(5) and (h)(2), § 962.303 (b)(5) and (h)(2), and § 984.303 (b)(5) and (i). (See, respectively, 58 FR 30887 (second column), 30894 (first column), and 30900 (third column)).

In addition to inserting the phrase "without good cause" in § 984.303(b)(5), the word "without" in paragraph (b)(5)(i) of this section should be "withhold." (See 58 FR 30900).

Correction 4. In § 905.3024(b) (Total tenant payment and increases in family income), the second "or" should be "for." (See 58 FR 3088, second column.)

Corrections 5–8. In the definitions of "Action plan," "Certification," "FSS account," "Program Coordinating Committee," and "Self-sufficiency" in § 962.103 (Definitions), the word "subpart" in each definition should be "part." (See 58 FR 30889, third column, and 58 FR 30890, second and third columns.)

Correction 9. In § 962.302 (Administrative fees), the word "eligible" should be inserted after the words "reasonable and" in the fourth line of this paragraph. (See 58 FR 30893.)

Correction 11. In § 962.305 (FSS account), in paragraph (b)(1)(i), the second "FSS" should be followed by the word "credit." (See 58 FR 30895, first column.)

Correction 12. In § 962.305(c), the heading "Disbursement before expiration of contract term" should be italicized to clarify that this is the heading for this paragraph. (See 58 FR 30895, second column.)

Correction 13. In § 962.305(e), the phrase "unless such use is prohibited by the statute or regulations governing the particular homeownership program" was inadvertently omitted. (See 58 FR 30895, third column.) This phrase is included in the comparable section in the Indian housing FSS regulations. (See § 905.3024(e) at 58 FR 30889, first column.)

Corrections 14–17. In the definitions of "Action plan," "Certification," "FSS account," and "Self-sufficiency" in § 984.103 (Definitions), the word "subpart" in each definition should be "part." (See 58 FR 30896 middle column, and 58 FR 30897, first and second columns.)

Correction 18. In the definition of "FSS related service program" in § 984.103, the phrase "of this subpart" is unnecessary and should be omitted. (See 58 FR 30897.)

This document will correct the above technical errors.

The Department does not intend to make any substantive amendments to the FSS program rules until the FSS final rule becomes effective on May 27, 1994. The Department has received 34 public comments on the May 27, 1993 FSS interim and final rules. The Department is reviewing these comments and may consider further amendments to the FSS final rule, after the rule becomes effective on May 27, 1994.

Accordingly, FR Doc. 93–12326, an interim rule published in the **Federal Register** on May 27, 1993 (58 FR 30858), is corrected to read as follows:

1. On pages 30886 and 30887, in § 905.3020, the last sentence of paragraph (a)(1), in the third column on page 30886, and paragraph (a)(2), in the first column on page 30887, are corrected to read as follows:

§ 905.3020 Program implementation.

(a) * * *

(1) *Program start-up.* * * * Full delivery of the supportive services to be provided to the total number of families to be served under the program need not occur within 12 months, but must occur by the deadline set forth in paragraph (a)(2) of this section.

(2) *Full enrollment and delivery of services.* Except as provided in paragraph (a)(3) of this section, the IHA must have completed enrollment of the total number of families to be served under the FSS program, and must have begun delivery of the supportive services within two years from the date of notification of approval of the application for new Indian housing units.

* * * * *

2. On page 30887, in the first column, § 905.3021 is corrected to read as follows:

§ 905.3021 Administrative fees.

The performance funding system (PFS), provided under section 9(a) of the Act, shall provide for the inclusion of reasonable and eligible administrative costs incurred by IHAs in carrying out local FSS programs. These costs are subject to appropriations by the Congress.

3. On pages 30887 and 30888, in § 905.3022, paragraph (b)(5), on page 30887 in the second column, and paragraph (h)(2), on page 30888 in the first column, are corrected to read as follows:

§ 905.3022 Contract of participation.

* * * * *

(b) * * *

(5) *Consequences of noncompliance with contract.* The contract of participation shall specify that if the FSS family fails to comply with the terms and condition of the contract of participation, without good cause, the IHA may:

* * * * *

(h) * * *

(2) The failure of the FSS family to meet its obligations under the contract of participation without good cause;

* * * * *

§ 905.3024 [Corrected]

4. On page 30888, in the second column, in § 905.3024(b), correct the word "or" the second time it appears to read "for."

§ 962.103 [Corrected]

5. On page 30889, in the third column, in § 962.103, in the definition of "Action Plan," correct the word "subpart" to read "part."

6. On page 30890, in the first column, in § 962.103, in the definition of "Certification," correct the word "subpart" to read "part."

7. On page 30890, in the third column, in § 962.103, in the definition of "Program Coordinating Committee," correct the word "subpart" to read "part."

8. On page 30890, in the third column, in § 962.103, in the definition of "Self-sufficiency," correct the word "subpart" to read "part."

§ 962.302 [Corrected]

9. On page 30893, in the third column, in § 962.302, add the word "eligible" after the words "reasonable and" in line 4.

10. On page 30894, in the first and third column, in § 962.303, correct paragraphs (b)(5) introductory text and paragraph (h)(2) to read as follows:

§ 962.303 Contract of participation.

* * * * *

(b) * * *

(5) *Consequences of noncompliance with the contract.* The contract of participation shall specify that if the FSS family fails to comply, without good cause, with the terms and conditions of the contract of participation, which includes compliance with the public housing lease, the PHA may:

* * * *

(h) * * *

(2) The failure of the FSS family to meet its obligations under the contract of participation without good cause;

* * * * *

§ 962.305 [Correction]

11. On page 30895, in the first column, in § 962.305, correct paragraph (b)(1)(i) introductory text by adding the word "credit" between the words "FSS" and "shall."

12. On page 30895, in the second column, in § 962.305, correct paragraph (c)(2) by italicizing the heading—"*Disbursement before expiration of contract term.*"

13. On page 30895, in the third column, in § 962.305, correct paragraph (e) to read as follows:

§ 962.305 FSS account.

* * * * *

(e) *Use of FSS account funds for homeownership.* An FSS family may use its FSS account funds for the purchase of a home, including the purchase of a home under one of HUD's homeownership programs, or other Federal, State, or local homeownership programs unless such use is prohibited by the statute or regulations governing the particular homeownership program.

§ 984.103 [Corrected]

* * * * *

14. On page 30896, in the second column, in § 984.103, in the definition of "Action plan," correct the word "subpart" to read "part."

15. On page 30896, in the second column, in § 984.103, in the definition of "Certification," correct the word "subpart" to read "part."

16. On page 30897, in the first column, in § 984.103, in the definition of "FSS account," correct the word "subpart" to read "part."

17. On page 30897, in the first column, in § 984.103, in the definition of "FSS related service program," remove the phrase "of this subpart."

18. On page 30897, in the second column, in § 984.103, in the definition of "Self-sufficiency," correct the word "subpart" to read "part."

19. On pages 30900 and 30901, in § 984.303, correct paragraphs (b)(5) introductory text and (b)(5)(i) on page 30900 in the third column, and correct paragraph (i) on page 30901 in the second column, to read as follows:

§ 984.303 Contract of participation.

* * * * *

(b) * * *

(5) *Consequences of noncompliance with contract.* The contract of participation shall specify that if the FSS family fails to comply, without good cause, with the terms and conditions of the contract of participation, which includes compliance with the assisted lease, the PHA may:

(i) Withhold the supportive services;

* * * * *

(i) *Option to terminate section 8 housing and supportive service assistance.* The PHA may terminate or withhold section 8 housing assistance, the supportive services, and the FSS family's participation in the FSS program, if the PHA determines, in accordance with the hearing procedures provided in 24 CFR 882.216 and 887.405, that the FSS family has failed to comply without good cause with the requirements of the contract of participation as provided in paragraph (b)(5) of this section.

* * * * *

Dated: February 7, 1994.

Myra L. Ransick,

Assistant General Counsel for Regulations.

[FR Doc. 94–3457 Filed 2–15–94; 8:45 am]

BILLING CODE 4210–33–P

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 165

[COTP St. Louis 94–003]

RIN 2115–AA97

Safety Zone; Illinois River

AGENCY: Coast Guard, DOT.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a safety zone on the Illinois River. The regulation is needed to protect tank barges from the hazards associated with ice. The regulation will restrict general navigation in the regulated area for the safety of vessel traffic and the protection of life and property along the river.

EFFECTIVE DATES: This regulation is effective January 25, 1994 and will terminate on March 10, 1994 unless sooner terminated by the Captain of the Port.

FOR FURTHER INFORMATION CONTACT: LT Timothy Deal, Operations Officer, Captain of the Port, St. Louis, Missouri at (314) 539–3823.

SUPPLEMENTARY INFORMATION:

Drafting Information

The drafters of this regulation are MST1 Franz F. Karnuth, Project Officer, Marine Safety Office, St. Louis, Missouri and LCDR A. O. Denny, Project Attorney, Second Coast Guard District Legal Office.

Regulatory History

In accordance with 5 U.S.C. 553, a notice of proposed rulemaking has not been published for this regulation and good cause exists for making it effective in less than 30 days from the date of publication. Following normal rulemaking procedures would have been impracticable. Specifically, severe weather conditions have developed hazardous icing conditions and insufficient time exists to publish a notice of proposed rulemaking. The Coast Guard deems it to be in the public's best interest to issue a regulation now as the conditions are presenting immediate hazards.

Background and Purpose

The hazards associated with icing conditions require immediate response to insure safe navigation and to prevent tank barge hull failure. Recent surveys of the regulated area by industry and Coast Guard representatives has established the need to impose restrictions.

Regulatory Evaluation

This regulation is not considered a significant regulatory action under Executive Order 12866 and is not significant under Department of Transportation Regulatory Policies and Procedures (44 FR 11040; February 26, 1979), it will not have a significant economic impact on a substantial number of small entities, and it contains no collection of information requirements.

The Coast Guard expects the impact of this regulation to be so minimal that a Regulatory Evaluation is unnecessary. The imposed restrictions are anticipated to be of short duration. To avoid any unnecessary adverse economic impact on businesses which use the river for commercial purposes, Captain of the Port, St. Louis, Missouri will monitor the situation and will authorize entry into the closed area as conditions warrant. Changes will be announced by Marine Safety Information Radio Broadcast on VHF Marine Band Radio, Channel 22 (157.1 MHZ). Mariners may also call the Port Operations Officer, Captain of the Port, St. Louis, Missouri at (314) 539–3823 for current information.

Federalism Assessment

Under the principles and criteria of Executive Order 12612, this regulation does not raise sufficient federalism

implications to warrant the preparation of a Federalism Assessment.

Environmental Assessment

The Coast Guard considered the environmental impact of this proposal and concluded that, under section 2.B.2.g.[5] of Commandant Instruction M16475.1B, this proposal is categorically excluded from further environmental documentation as an action to protect public safety.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Records and recordkeeping, Security measures, Waterways.

Temporary Regulation

In consideration of the foregoing, subpart C of part 165 of title 33, Code of Federal Regulations, is amended as follows:

PART 165—[AMENDED]

1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1231; 50 U.S.C. 191; 49 CFR 1.46 and 33 CFR 1.05–1(g), 6.04–1, 6.04–6, and 160.5.

2. A temporary § 165.T02–006 is added, to read as follows:

§ 165.T02–006 Safety zone: Upper Mississippi River.

(a) *Location.* The Illinois River between mile 0.0 and 187.3 is established as a safety zone.

(b) *Effective dates.* This regulation becomes effective on January 25, 1994 and will terminate on March 10, 1994.

(c) *Regulations.* The general regulations under § 165.23 of this part which prohibit entry into the described zone without authority of the Captain of the Port apply. The Captain of the Port, St. Louis, Missouri will notify the maritime community of river conditions affecting the areas covered by this safety zone by Marine Safety Information Radio Broadcast on VHF Marine Band Radio, Channel 22 (157.1 MHZ).

Dated: January 25, 1994.

Scott P. Cooper,

Commander, U.S. Coast Guard, Captain of the Port, St. Louis, Missouri.

[FR Doc. 94–3518 Filed 2–15–94; 8:45 am]

BILLING CODE 4910–14–M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 271

[FRL–4838–3]

North Carolina; Final Authorization of Revisions to State Hazardous Waste Management Program

AGENCY: Environmental Protection Agency.

ACTION: Notice of clarification.

SUMMARY: This notice clarifies the approved list of authorities published in the January 27, 1994, **Federal Register** (59 FR 3792) for final authorization of revisions to North Carolina's Hazardous Waste Management Program. Due to a printing error on page 3793, the phrase "Burning of Hazardous Waste in Boilers and Industrial Furnaces Rule (Checklist 85)." was deleted from the end of the preceding paragraph and instead placed as a false heading for the chart which followed. North Carolina is not being authorized for the Burning of Hazardous Waste in Boilers and Industrial Furnaces Rule.

DATES: Final authorization for North Carolina's program revision shall be effective March 28, 1994, unless EPA publishes a prior **Federal Register** action withdrawing the January 27, 1994, final rule.

FOR FURTHER INFORMATION CONTACT: Al Hanke, Chief, State Programs Section, Waste Programs Branch, Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street, NE., Atlanta, Georgia 30365; (404) 347–2234.

SUPPLEMENTARY INFORMATION: In the January 27, 1994, issue of the **Federal Register** on page 3793, the last paragraph is corrected to read:

North Carolina is today seeking authority to administer the following federal requirements promulgated between July 1, 1990, and June 30, 1991, for the requirements of RCRA Cluster I except for the February 21, 1991, (56 FR 7134) Burning of Hazardous Waste in Boilers and Industrial Furnaces Rule (Checklist 85).

The Chart on pages 3793 and 3794 are corrected to read (without the heading) as follows:

Federal requirement	HSWA or FR reference	Federal promulgation date	State authority
Checklist 80	55 FR 40834	10/5/90	15 NCAC 13A .0006(a).
Toxicity Characteristics	56 FR 3798	2/1/91	
Hydrocarbon Recovery Operations (HSWA)	56 FR 13406	4/2/91	
Checklist 81	55 FR 46354	11/2/90	15A NCAC 13A .0006(d).
Petroleum refinery and secondary oil/water/solid separation sludge listings (F037 and F038).	55 FR 51707	12/17/90	15A NCAC 13A .0006(e).
Checklist 82—Wood preserving listings	55 FR 50450	12/6/90	15A NCAC 13A .0002(b). 15A NCAC 13A .0006(a). 15A NCAC 13A .0006(d). 15A NCAC 13A .0006(e). 15A NCAC 13A .0007(c). 15A NCAC 13A .0009(k). 15A NCAC 13A .0009(s). 15A NCAC 13A .0010(j). 15A NCAC 13A .0010(r). 15A NCAC 13A .0013(b).
Checklist 83—Land disposal restrictions for third third schedule waste; technical amendments.	56 FR 3864	1/31/91	15A NCAC 13A .0006(a). 15A NCAC 13A .0006(c). 15A NCAC 13A .0006(d). 15A NCAC 13A .0007(a). 15A NCAC 13A .0007(c). 15A NCAC 13A .0012(a). 15A NCAC 13A .0012(b). 15A NCAC 13A .0012(c). 15A NCAC 13A .0012(e). 15A NCAC 13A .0013(g).

Federal requirement	HSWA or FR reference	Federal promulgation date	State authority
Checklist 84—Toxicity characteristic; chlorofluorocarbon refrigerants	56 FR 5910	2/13/91	15A NCAC 13A .0006(a).
Checklist 86—Removal of strontium sulfide from the list of hazardous waste; technical amendment.	56 FR 7567	2/25/91	15A NCAC 13A .0006(d). 15A NCAC 13A .0006(e).
Checklist 87—Organic air emission standards for process vents equipment leaks; technical amendment.	56 FR 19290	4/26/91	15A NCAC 13A .0009(u). 15A NCAC 13A .0009(v). 15A NCAC 13A .0010(b). 15A NCAC 13A .0010(c). 15A NCAC 13A .0010(e). 15A NCAC 13A .0010(s). 15A NCAC 13A .0010(t). 15A NCAC 13A .0013(b).
Checklist 88—Administrative stay for K069	56 FR 19951	5/1/91	15A NCAC 13A .0006(d).
Checklist 89—Revision to the petroleum refining primary and secondary oil/water/solids separation sludge listings (F037 and F038).	56 FR 21955	5/13/91	15A NCAC 13A .0006(d).
Checklist 90—Mining waste exclusion III	56 FR 27300	6/13/91	15A NCAC 13A .0006(a).
Checklist 91—Wood preserving listings administrative stay for F032, F034, and F035 listings.	56 FR 27332	6/13/91	15A NCAC 13A .0006(d). 15A NCAC 13A .0009(s). 15A NCAC 13A .0010(r).
Burning and blending of hazardous waste	§ 3004(q)(2)(A) § 3004(r) (2) & (3)	.....	NCGS 130A–21.6 NCGS 130A–294(c)(1). NCGS 130A–294(c)(15).
Surface impoundments in existence on November 8, 1984	§ 3005(j) (1) & (6)	.....	NCGS 130A–294(c)(7). NCGS 130A–294(c)(11). NCGS 130A–294(c)(15). NCGS 130A–294(b)(7). NCGS 150B–21.6.

Dated: February 7, 1994.

Patrick M. Tobin,

Acting Regional Administrator.

[FR Doc. 94–3538 Filed 2–15–94; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

43 CFR Part 4700

[WO–200–4370–02–24 1A; Circular No. 2631]

RIN 1004–AB81

Protection, Management, and Control of Wild Free-Roaming Horses and Burros; Prohibited Acts, Administrative Remedies, and Penalties; Administrative Remedies

AGENCY: Bureau of Land Management, Interior.

ACTION: Final rule.

SUMMARY: This final rule allows the authorized officer to place in full force and effect decisions to cancel a Private Maintenance and Care Agreement to allow immediate repossession of animals found to be subject to abuse or neglect. This final rule also makes technical amendments to regulatory text relating to the use of full force and effect decisions pertaining to the removal of wild horses and burros.

EFFECTIVE DATE: February 16, 1994.

ADDRESSES: Inquiries or suggestions should be sent to: Director (200), Bureau of Land Management, U.S. Department of the Interior, 1849 C St. NW., Washington, DC 20240.

FOR FURTHER INFORMATION CONTACT: Vernon R. Schulze, Division of Wild Horses and Burros, Bureau of Land Management (NV–960), Wild Horse and Burro National Program Office, (702) 785–6583.

SUPPLEMENTARY INFORMATION: This rule was published on an interim final basis on January 9, 1991 (56 FR 876), effective on that date, to allow immediate repossession of adopted wild free-roaming horses and burros and cancellation of Private Maintenance and Care Agreements (PMACAs) in cases where abuse or neglect are found to endanger the life or health of adopted animals. Horses and burros for which title has been passed to private individuals do not qualify as "wild free-roaming horses and burros" pursuant to 16 U.S.C. 1333, and, therefore, will not be affected by this rule. The interim final rule allowed 60 days for public comment. One public comment was received. This comment supported the interim final rule.

Accordingly, the interim final rule is now adopted and published in final form. The wording of the interim final rule has been modified somewhat to ensure consistency with the Departmentwide full force and effect rule located at 43 CFR 4.21, which was issued in final form on January 19, 1993, after the publication of the interim final wild horse and burro rule. These technical amendments are needed to make 43 CFR part 4700 consistent with the Departmentwide full force and effect rule. The rule does not in any way limit the right of appeal of persons whose PMACAs are revoked, and allows such persons to petition for a stay of such decisions. It merely allows animals to be repossessed for their protection until issues raised on appeal can be considered.

Technical amendments to paragraph (c) of § 4770.3 are also being made in this final rule to reflect the amendment of the Departmentwide full force and effect rule. Paragraph (c) was added to § 4770.3 on July 6, 1992, to allow the authorized officer to place wild horse and burro removal decisions in full force and effect. The technical amendments to paragraph (c) are being made in this final rule to provide consistent wording within § 4770.3, and to make the provisions of § 4770.3 consistent with the procedural requirements of 43 CFR 4.21. The amendments will not affect the way in which the substance of paragraph (c) is implemented. Paragraph (c) of this section was not included in the interim final rule published January 9, 1991.

The principal author of this final rule is Vernon R. Schulze, Wild Horse and Burro Program Specialist, assisted by the staff of the Division of Legislation and Regulatory Management, BLM Washington Office.

It has been determined that this rule does not constitute a major Federal action significantly affecting the quality of the human environment and that no detailed statement pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) is required.

This rule has been reviewed under Executive Order 12866.

The Department of the Interior has determined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) that this rule will not have significant economic impact on a substantial number of small entities. Additionally, as required by Executive Order 12630, the Department has determined that the rule would not cause a taking of private property.

This rule does not contain information collection requirements that require approval by the Office of Management and Budget under 44 U.S.C. 3501 *et seq.*

List of Subjects in 43 CFR Part 4700

Advisory committees, Aircraft, Intergovernmental relations, Penalties, Public lands, Range management, Wild horses and burros, Wildlife.

Under the authorities cited below, part 4700, subchapter D, chapter II, title 43 of the Code of Federal Regulations, is amended as set forth below.

Dated: November 3, 1993.

Bob Armstrong,

Assistant Secretary of the Interior.

PART 4700—PROTECTION, MANAGEMENT, AND CONTROL OF WILD FREE-ROAMING HORSES AND BURROS

1. The authority citation for part 4700 is revised to read as follows:

Authority: 16 U.S.C. 1331–1340; 18 U.S.C. 47; 43 U.S.C. 315, 1740.

2. Section 4770.3 is revised to read as follows:

§ 4770.3 Administrative remedies.

(a) Any person who is adversely affected by a decision of the authorized officer in the administration of these regulations may file an appeal. Appeals and petitions for stay of a decision of the authorized officer must be filed within 30 days of receipt of the decision in accordance with 43 CFR part 4.

(b) Notwithstanding the provisions of paragraph (a) of § 4.21 of this title, the authorized officer may provide that decisions to cancel a Private Maintenance and Care Agreement shall be effective upon issuance or on a date established in the decision so as to allow repossession of wild horses or burros from adopters to protect the animals' welfare.

(c) Notwithstanding the provisions of paragraph (a) of § 4.21 of this title, the authorized officer may provide that decisions to remove wild horses or burros from public or private lands in situations where removal is required by applicable law or is necessary to preserve or maintain a thriving ecological balance and multiple use relationship shall be effective upon issuance or on a date established in the decision.

[FR Doc. 94–3516 Filed 2–15–94; 8:45 am]

BILLING CODE 4310–84–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. 74–09; Notice 34]

RIN 2127–AE80

Federal Motor Vehicle Safety Standards; Child Restraint Systems

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Final rule.

SUMMARY: This document amends labeling and other requirements of Federal Motor Vehicle Safety Standard No. 213, "Child Restraint Systems," for rear-facing infant restraint systems. It requires that warning labels for these systems include a warning against using the restraint in any vehicle seating position equipped with an air bag. It also requires that printed instructions for rear-facing restraints include safety information about air bags.

DATES: This rule is effective on August 15, 1994. Petitions for reconsideration of the rule must be received by March 18, 1994.

ADDRESSES: Petitions for reconsideration should refer to the docket and number of this document and be submitted to: Administrator, room 5220, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Dr. George Mouchahoir, Office of Vehicle Safety Standards, National Highway Traffic safety Administration, 400 Seventh St. SW., Washington, DC 20590 (telephone 202–366–4919).

SUPPLEMENTARY INFORMATION: This document amends labeling and other requirements of Federal Motor Vehicle Safety Standard No. 213, "Child Restraint Systems," for rear-facing infant restraint systems. The amendments made by this document were proposed in a notice of proposed rulemaking (NPRM) published on April 16, 1993 (58 FR 19792). Rear-facing restraints are currently required by Standard 213 to be labeled with warnings and other information about their proper use (S5.5.1 and S5.52). This rule requires that the warning label for rear-facing restraints include a warning against using the restraint in any vehicle seating position equipped with an air bag. This document also requires that printed instructions for these seats include safety information about air bags.

"Rear-facing infant restraint system," as used in this document, refers to an infant restraint system (except a car bed) which is positioned in a vehicle so that the restrained infant faces the rear of the vehicle. In a frontal crash, the crash forces are spread evenly across the infant's back and shoulders, the strongest part of an infant's body.

When the rear-facing infant restraint is placed on a vehicle seat, the restraint's seat back projects forward, far in front of the vehicle seat back. If the vehicle seating position is a front passenger one equipped with an air bag, the forward-projecting seat back of the infant restraint may rest on or be located close to the part of the vehicle instrument panel containing the air bag.

Placing a rear-facing restraint on such a vehicle seat raises a safety concern of the interaction between those restraints and air bags. An air bag must inflate quickly to create a protective cushion that protects occupants during frontal crashes. The quickly deploying air bag might injure an infant when it strikes the seat back of a rear-facing infant restraint.

In the Fall of 1991, the agency evaluated air bag/infant restraint interactions by conducting 30 mph dynamic sled tests with top and mid-mounted air bags. (The data from these tests are available in Docket No. 74–09, General Reference.) NHTSA's findings from these tests indicate that air bags generally produce substantial increases in the values for the head injury criterion (HIC) and chest acceleration of dummies seated in rear-facing restraints, compared to the values for dummies in rear-facing restraints tested with no air bag.

To reduce the likelihood that an infant restraint would be placed in a vehicle seating position that has an air bag, the agency is requiring each infant restraint to be labeled with a warning

against such use. The warning must state either:

Warning: When your baby's size requires that this restraint be used so that your baby faces the rear of the vehicle, place the restraint in a vehicle seat that does not have an air bag.

or

Warning: Place this restraint in a vehicle seat that does not have an air bag.

The former warning is used for convertible infant seats, i.e., seats that can use rear-facing for infants and forward-facing for older children. The latter is for seats that can be used only rear-facing for infants.

The warning must be labeled on a red, orange or yellow background and be visible to a person installing the restraint.

NHTSA is also requiring that infant restraint manufacturers provide information on the air bag/infant restraint interaction issue in their printed instructions accompanying the infant restraint. The manufacturers must provide a warning against using rear-facing restraints in seating positions equipped with air bags, and explain the reasons for, and consequences of, not following the warning.

NHTSA has already required vehicle manufacturers to provide warnings and information about the interaction of air bags and rear-facing infant restraints. This information must be placed on the sun visors in vehicles with air bags and provided in the vehicle owner's manual. (This requirement is included in the rule implementing the provision in the Intermodal Surface Transportation Efficiency Act requiring the agency to mandate air bags at all front outboard seating positions in passenger cars, and in light trucks and multipurpose vehicles. 58 FR 46551, September 1, 1993.) Today's rule supplements that requirement to increase the likelihood that parents will be made aware of the possible effect of a deploying air bag on an infant restraint. Further, when the vehicle itself is labeled, parents will be provided the safety information even if the infant restraint they are using lacks the label required by today's final rule (which could happen if the infant restraint were manufactured before the effective date of today's rule).

The requirements adopted in today's document are substantially similar to those NHTSA proposed in the April 1993 NPRM. The text proposed in the notice for convertible seats (which are designed for use by both an infant and toddler) and infant restraints read, respectively:

Warning: When this restraint is used in a rear-facing mode, do not place in the front seat of a vehicle that has a passenger side air bag.

and,

Warning: Do not use this infant restraint in the front seat of a vehicle that has a passenger side air bag.

With the goal of having the warning be conspicuous, NHTSA proposed that the message be on a yellow background, and be visible when the restraint is installed rear-facing in the vehicle. The agency requested comments on whether the message should be required to be visible to a person in the driver's seat when the restraint is so installed.

The agency received 16 comments on the NPRM. Commenters included child seat manufacturers (Century, Fisher Price, Cosco), vehicle manufacturers (Volkswagen, Ford), state safety agencies (Michigan, New York), the National Transportation Safety Board (NTSB), the American Academy of Pediatrics, consumer groups (SafetyBeltSafe, Advocates for Highway and Auto Safety), business groups (Insurance Institute for Highway Safety, National Automobile Dealers Association), and private individuals. All the commenters generally supported the NPRM; several had suggested changes.

Most of the comments related to issues about the wording of the label. Comments were also received on the label's conspicuity, and on the proposal that child seat manufacturers provide information about air bags in the consumer instructions accompanying each restraint. In addition, some commenters were concerned about the possible effect of the labeling and informational requirements on the possible development of infant restraints that can be safely used in an air bag-equipped vehicle seating position.

Wording of the Label

Commenters addressed various issues about the wording of the warning label.

One issue is whether specific wording should be mandated. The proposed regulatory text contained the exact wording of the label. Like the other safety warnings required by Standard 213, the air bag/infant restraint warning would have to be printed word for word as set forth in the standard. Advocates for Highway and Auto Safety (Advocates) believed the exact wording should be specified. "It would not be appropriate to leave the wording of a safety warning label, which must be concise, clear, accurate, and uniform, to manufacturer discretion." Commenters such as the American Academy of Pediatrics (AAP), Jerome Koziatek and Robert Potter, Jr. conferred that the wording should be mandated, and suggested changes to the wording to improve it. Ford opposed mandating the wording, believing that the prescribed wording may limit the flexibility of manufacturers, especially if it became possible for a child seat manufacturer to recommend use of an infant restraint in an air bag-equipped seating position under certain circumstances. (This issue of the future development of infant restraints is further discussed below.) Ford stated that the wording currently specified in Standard 213 "can be altered as needed."

The specific wording of the safety warnings currently required by Standard 213 to be marked on a child seat is mandated. Notwithstanding Ford, all other commenters appeared to understand that the wording of the air bag warning must appear on the restraint as stated in the standard. It is for that reason that comments were requested and submitted on the efficacy and appropriateness of the wording. NHTSA has decided to mandate the wording of the new air bag warning for the reasons explained in the NPRM. Those reasons are consistent with Advocates' view, quoted above, that the wording must be carefully crafted so as to reduce as much as possible the possibility that the warning is misunderstood. As explained in the NPRM:

> [T]he message should be brief, alerting consumers to and reminding them about a safety concern without causing "information overload." The message also should not inadvertently induce the consumer to misuse a restraint, such as might happen if the message were so loosely worded that consumers might conclude they could avoid the problem by simply turning the restraint around so that the child is forward-facing when the restraint is used in an air bag equipped seating position. The message also should be conspicuous.

58 FR at 19793.

To further clarify Standard 213's labeling requirements for Ford, NHTSA notes that the safety warnings required by the standard may not be "altered as needed" by a manufacturer. If a manufacturer believes the wording should be altered, it must submit a petition for rulemaking to change the requirements in Standard 213.

Cosco expressed concern that Standard 213 already requires too many warnings, and that another warning would compound the complexity and confusion of the labeling. That child seat manufacturer is concerned that consumers may not pay attention to or

understand the warnings because there are simply too many warnings. Cosco suggested that NHTSA review the labeling required by the standard and possibly condense some of the required information. Fisher-Price also suggested that NHTSA undertake a "complete reconsideration" of Standard 213's labeling requirements, "to assure that on-seat markings are not rendered ineffectual because of the excess of required information."

NHTSA agrees that a significant amount of information is required to be labeled on an infant restraint, and is willing to consider, in a future rulemaking, suggestions for ways in which the information could be edited or condensed. The agency believes that the air bag warning is needed now notwithstanding that it will be another item of information that competes for the attention of the consumer. However, the agency will review Standard 213's labeling requirements as Cosco and Fisher-Price suggested.

Commenters were divided on whether the proposed wording was sufficiently clear. SafetyBeltSafe and the IIHS believed the statements were clear; however, some other commenters believed the clarity of the wording could be improved. The AAP believed that, in response to the proposed wording for convertible seats, some consumers might mistakenly turn the restraint so that the infant is forward-facing in an air bag position. AAP suggested that the warning should be clearer that an infant restraint must be used rear-facing, regardless of the presence of an air bag. To accomplish this, AAP suggested that the warning include the statement, "When your baby's size requires that this restraint be used in a rear-facing position * * *" as a condition precedent for the warning not to use the restraint in an air-bag equipped seating position. NHTSA agrees the wording should refer to the baby's size and has made appropriate changes.

Some commenters objected to certain words in the proposed warning. AAP suggested the word "position" should be used instead of "mode" in the term "rear-facing mode," since the former word is more commonly recognized than the latter. Cosco said that adding "mode" following "rear-facing" is unnecessary. NHTSA has removed "mode" from the wording. Cosco also suggested the references to "front seat" or "passenger side" in "passenger side air bag" are unnecessary, since they do not add any relevant information. The agency agrees. Mr. Koziatek suggested the label should direct the consumer to "secure" the restraint instead of "place" it on the vehicle seat, to increase the likelihood that the restraint will be fastened to the seat. NHTSA declines to make the change, because "secure" might distract a consumer from the purpose of the air bag warning.

Some comments suggested adding more text to the warning label. Mr. Koziatek recommended that the label include a statement directing the consumer to check the vehicle owner's manual for information about where the infant restraint should be placed in the vehicle. The statement is not needed on the label. Child seat labels already must refer consumers to the printed instructions for information on securing the child seat to the vehicle (S5.5.2(g)). Also, NHTSA is requiring the printed instructions for child seats to include a statement that owners of vehicles with passenger side air bags should refer to their vehicle owner's manual for child seat installation instructions. Moreover, NHTSA's September 1993 rule mandating air bags in passenger vehicles will require the sun visor on vehicles with passenger side air bags to be labeled with a statement referring the consumer to the vehicle owner's manual for information about the warning not to use a rear-facing infant restraint in a vehicle seating position equipped with an air bag. Placing the same information on the child seat would be redundant, and would further crowd the child seat label.

Other suggestions were made for adding additional text to the warning label. Mr. Potter believed a statement describing the possible consequences of not following the warning is needed, such as by referring to the possibility of "serious injury or death." NHTSA disagrees, since this rule already requires the use instructions to contain information on the consequences of not following the warning. SafetyBeltSafe suggested that the label should include a warning in Spanish. NHTSA is not requiring the bilingual labeling for the reasons discussed at 55 FR 48262 (denial of Mattox petition to require Spanish installation instructions, November 20, 1990). Thus, the standard requires manufacturers to supply the information in English. However, once this requirement is met, manufacturers may supply the same information in other languages, so long as the presence or location of the translation does not confuse consumers.

Several commenters responded to the agency's request for comments on the merits of requiring a symbol (or graphic) warning about using rear-facing restraints with an air bag. New York's Department of Motor Vehicles supported the use of a symbol because "a symbol would assist adults who are reading disabled or who speak a foreign language." The AAP believed it would be desirable to have a symbol of a child restraint on the vehicle dashboard, "if a non-confusing symbol can be designed." Century commented that a symbol can increase the effectiveness of the warning label "as long as it adequately identifies and warns of the hazard." Cosco expressed reservations about requiring a symbol. That commenter believed a symbol would draw an excessive amount of attention to the issue of the air bag's possible effect on a rear-facing restraint "over others that may be as bad or worse," such as, Cosco believes, the incompatibility of vehicle belts with certain child seats. Cosco also stated that the effectiveness of a symbol depends on the ability of the consumer to recognize it. "If NHTSA requires such a symbol, it should be prepared to publicize it."

The agency has decided not to require use of a symbol. Had it been required, the symbol would have been in addition to the words. NHTSA believes that the words will draw sufficient attention to the label, especially since the warning will be subject to the conspicuity requirements discussed in the next section. In response to New York's comment that a symbol would assist adults who are reading disabled or who speak a foreign language, the agency is concerned that there is no universally recognized symbol for effectively communicating the warning at this time. The lack of such familiarity with a symbol would reduce the symbol's effectiveness and could cause confusion.

Conspicuity of the Label

The conspicuity of the label is ensured by requirements concerning its location, color and font style.

The aspect of promoting the conspicuity of the label that engendered the most comments was the location of the warning label, i.e., whether the message should be required to be visible to a person in the driver's seat if the restraint were installed rear-facing in the front outboard passenger seating position. Seven commenters responded to this issue. The IIHS concurred that the label should be visible to the driver. Century, Advocates, SafetyBeltSafe, Fisher-Price, and the AAP objected to the driver's side approach. These commenters believed locating the label so that it is visible to the driver reduces the effectiveness of the warning, since the warning would be readable only when the restraint is improperly installed. The commenters believed a driver noticing the label on an

improperly installed restraint would be unlikely to take the time to exit the vehicle and move the restraint to the rear seat of the vehicle. Mr. Potter suggested the label should be placed on the shoulder harness/webbing of the restraint.

NHTSA agrees that the warning should be visible to the installer while the restraint is being installed. The agency thinks that there is merit in the commenters' belief that a driver who noticed the warning could be reluctant to stop the vehicle to move a rear-facing infant restraint to the vehicle's rear seat after the infant restraint is installed. Further, the driver would already have been provided a warning as a result of the September 1993 rule mandating air bags in passenger vehicles. The rule requires the driver's side sun visor on vehicles with passenger side air bags to be labeled with a warning against using rear-facing child restraints with the passenger side air bag. Accordingly, NHTSA is requiring that the warning on the child restraint be visible to a person who is standing adjacent to the front outboard passenger seat of a vehicle and installing the rear-facing infant restraint system in that seat.

The requirement concerning the color of the contrasting background for the warning has been changed from the proposal in response to a comment from Ford. Ford suggested that red and orange be permitted in addition to yellow. NHTSA is permitting those similarly bright and attention-attracting colors. Ford also suggested that the color be required only for the word "WARNING" at the beginning of the required statement, instead of the entire statement. NHTSA is requiring the entire statement to be printed against the color contrasting background to maximize the conspicuity of the warning.

Volkswagen objected to the requirement that the letters be capitalized, stating that manufacturers should be allowed to decide on the print format. NHTSA disagrees. Standard 213 requires important safety messages on the proper use of child restraints to be capitalized. These include a warning that the consequences of failing to follow the manufacturer's use instructions can result in the child striking the vehicle's interior in a crash (S5.5.2(g)), and directions on snugly adjusting the child restraint belts around the child (S5.5.2(h)) and on placing an infant restraint so that it is rear-facing (S5.5.2(k)). The air bag warning is as important as these messages. Requiring the information to be capitalized is consistent with the present labeling requirement of S5.5.2 to capitalize such information, and increases the likelihood that the consumer will notice and read the information. However, NHTSA will revisit this issue when it reviews all labeling requirements.

Printed Instructions

This rule amends S5.6.1 to add a requirement that the printed instructions for rear-facing infant restraints must provide a warning against using rear-facing restraints at seating positions equipped with air bags and must explain the reasons for the warning and consequences of not following it. NHTSA is also requiring that the instructions include a statement that owners of vehicles with front passenger side air bags should refer to their vehicle owner's manual for child seat installation instructions. The agency adopted the latter requirement in response to a suggestion from Volkswagen. Effective March 1994, the owner's manual of each vehicle having a front passenger side air bag must include information on the proper positioning of occupants, including children, at seating positions equipped with an air bag. The information must include any necessary precautions that should be heeded for the safety of those occupants. The requirement adopted today for infant restraint instructions complements the requirement for the vehicle owner's manual.

Effect on Future Designs

The agency believes that the label and information requirements adopted today will be effective in warning consumers against using a rear-facing infant restraint in a vehicle seating position equipped with an air bag. The warning is needed because data have indicated that unacceptably high forces are produced by a deploying air bag on present designs of rear-facing infant restraints.

Several commenters, however, expressed concern that the requirements adopted today might impede the development of rear-facing infant restraints that are safe to use in an air bag equipped seating position. These commenters indicated that manufacturers are undertaking efforts to develop infant restraints that can be used in an air bag-equipped seating position. Ford said that the warning statement may limit the flexibility of infant restraint manufacturers to recommend using a rear-facing system in an air bag-equipped seating position under limited circumstances, such as if the vehicle seat were adjusted to a certain position. Century stated that NHTSA should ensure that the warning label requirement does not prevent future child seat designs that work adequately with an air bag. Century suggested that NHTSA should begin defining a test procedure and performance criteria for testing the interaction of child restraints with air bags.

NHTSA does not intend for this rule to impede the development of rear-facing restraints that are compatible with an air bag. As discussed in the NPRM, the agency has been closely monitoring the work of a task force on Child Restraint and Air Bag Interaction (CRABI) formed by the Society of Automotive Engineers. The task force is comprised of motor vehicle and child seat manufacturers and highway safety researchers. It has developed guidelines consisting of test procedures and test configurations (e.g., test dummies and a test fixture) that can be used for evaluating the interactions between child restraints and air bags. Moreover, NHTSA has developed, for research and evaluation purposes, procedures that were used in the Fall 1991 test program of air bags and rear-facing infant restraints. NHTSA will continue to closely monitor the work of CRABI, especially regarding the development of test procedures evaluating the performance of an infant restraint when used with a passenger side air bag. If CRABI were to develop a test procedure from its guidelines, NHTSA would evaluate it to determine whether the procedure is appropriate for Standard 213. Among other things, the procedure would have to be suitable for testing all types of infant restraints, and be able to provide test results that assess the performance of the restraint in the real world. The agency will consider a test procedure for incorporation into Standard 213 as soon as a suitable one is developed.

Rulemaking Analyses and Notices

Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures

This rulemaking document was not reviewed under E.O. 12866, "Regulatory Planning and Review." The agency has considered the impact of this rulemaking action under the Department of Transportation's regulatory policies and procedures, and has determined that it is not "significant" under them. NHTSA has prepared a regulatory evaluation for this action which discussed the potential costs, benefits and other impacts of this rule. A copy of this evaluation has been placed in the docket for this rulemaking action. Interested persons may obtain

copies of it by writing to the docket section at the address provided at the beginning of this notice.

To briefly summarize the evaluation, NHTSA estimates that the consumer cost of the labeling requirements of this rule ranges from $0.09 to $0.17 per rear-facing infant restraint. The total annual cost for all infant restraints will range from $350,280 to $661,640. This cost is expected to be even smaller if the warning statement is placed on the existing FMVSS No. 213 label.

The evaluation also estimates that, assuming that the warning is effective at preventing any placing of rear-facing restraints in air bag positions, 2 to 4 lives will be saved and 445 injuries will be reduced a year.

Regulatory Flexibility Act

NHTSA has considered the effects of this rulemaking action under the Regulatory Flexibility Act. I hereby certify that it will not have a significant economic impact on a substantial number of small entities. Of the 11 current child restraint manufacturers known to the agency (not counting vehicle manufacturers that produce and install built-in restraints) there are three that qualify as small businesses. This is not a substantial number of small entities. As to vehicle manufacturers that produce and install built-in restraints, most of those restraints are forward-facing restraints and are installed in a rear seating position. Further, those manufacturers are generally not considered small businesses.

Regardless of the number of small entities, the rule will not have a significant economic impact on these entities. Infant restraints range in cost between $20 and $70, with the average price about $39. Convertible seats range in cost between $45 and $120, with the average price about $79. If the entire $0.17 cost of the rule were added to the cost of the restraint, the typical infant restraint will increase in price by only 0.44 percent and the typical convertible seat, by only 0.22 percent. Small organizations and governmental jurisdictions might be affected by the rule if these entities procure child restraint systems for programs such as loaner programs. While the cost of the restraint could increase, loaner program procurements will not be significantly affected. A program that had a fixed amount of money for procuring child restraints will have its procurements reduced by only 0.34 to 0.57 percent. Thus, regardless of the number of small organizations and governmental jurisdictions, NHTSA concludes the rule will not have a significant economic impact on these entities.

Executive Order 12612 (Federalism)

This rulemaking action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612. The agency has determined that this rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

National Environmental Policy Act

NHTSA has analyzed this rulemaking action for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action will not have any significant impact on the quality of the human environment.

Executive Order 12778 (Civil Justice Reform)

This rule does not have any retroactive effect. Under section 103(d) of the National Traffic and Motor Vehicle Safety Act (Safety Act; 15 U.S.C. 1392(d)), whenever a Federal motor vehicle safety standard is in effect, a state may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the state requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. Section 105 of the Safety Act (15 U.S.C. 1394) sets forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Motor vehicles.

In consideration of the foregoing, NHTSA amends 49 CFR part 571 as set forth below:

PART 571—[AMENDED]

1. The authority citation for part 571 continues to read as follows:

Authority: 15 U.S.C. 1392, 1401, 1403, 1407; delegation of authority at 49 CFR 1.50.

§ 571.213 [Amended]

2. Section 571.213 is amended by revising S5.5.2(k) and adding S5.6.1.8, to read as follows:

§ 571.213 Standard No. 213, Child Restraint Systems.

* * * * *

S5.5.2 * * *

(k) In the case of each child restraint system that can be used in a rear-facing position, the following statements:

(i) Either "PLACE THIS CHILD RESTRAINT IN A REAR-FACING POSITION WHEN USING IT WITH AN INFANT," or "PLACE THIS INFANT RESTRAINT IN A REAR-FACING POSITION WHEN USING IT IN THE VEHICLE," and,

(ii) Either of the following statements, as appropriate, on a red, orange or yellow contrasting background, and placed on the restraint so that it is on the side of the restraint designed to be adjacent to the front passenger door of a vehicle and is visible to a person installing the rear-facing child restraint system in the front passenger seat:

Warning: When your baby's size requires that this restraint be used so that your baby faces the rear of the vehicle, place the restraint in a vehicle seat that does not have an air bag.

or

Warning: Place this restraint in a vehicle seat that does not have an air bag.

* * * * *

S5.6.1.8 In the case of each child restraint system that can be used in a position so that it is facing the rear of the vehicle, the instructions shall provide a warning against using rear-facing restraints at seating positions equipped with air bags, and shall explain the reasons for, and consequences of not following the warning. The instructions shall also include a statement that owners of vehicles with front passenger side air bags should refer to their vehicle owner's manual for child restraint installation instructions.

Issued on February 8, 1994.

Christopher A. Hart,

Deputy Administrator.

[FR Doc. 94–3252 Filed 2–14–94; 10:00 am]

BILLING CODE 4910–59–M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 611, 672, and 676

[Docket No. 940242–4042; I.D. 110193B]

Foreign Fishing; Groundfish of the Gulf of Alaska; Limited Access Management of Federal Fisheries In and Off of Alaska

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

ACTION: Final 1994 specifications of groundfish and associated management measures; closures; request for comments.

SUMMARY: NMFS announces final 1994 harvest specifications for Gulf of Alaska (GOA) groundfish and associated management measures. This action is necessary to establish harvest limits and associated management measures for groundfish during the 1994 fishing year. NMFS is also closing specified fisheries consistent with the final 1994 groundfish specifications. These measures are intended to carry out management objectives contained in the Fishery Management Plan (FMP) for Groundfish of the GOA.

DATES: Effective February 10, 1994 through 24:00 Alaska local time (A.l.t.), December 31, 1994. All closures to directed fishing are effective through 24:00 A.l.t., December 31, 1994. Comments are invited on the apportionments of reserves on or before February 25, 1994.

ADDRESSES: Comments should be sent to Ronald J. Berg, Chief, Fisheries Management Division, Alaska Region, National Marine Fisheries Service, P.O. Box 21668, Juneau, AK 99802–1668. Copies of the Environmental Assessment (EA) for 1994 Total Allowable Catch Specifications for the GOA, dated February 1994, may be obtained from the above address. The Final Stock Assessment and Fishery Evaluation Report (SAFE report), dated November 1993, is available from the North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, Alaska 99510.

FOR FURTHER INFORMATION CONTACT: Kaja Brix, NMFS, (907) 586–7228.

SUPPLEMENTARY INFORMATION:

Background

NMFS announces for the 1994 fishing year: (1) Total allowable catches (TAC) for each groundfish target species category in the GOA and apportionments thereof among domestic annual processing (DAP), joint venture processing (JVP), total allowable level of foreign fishing (TALFF), and reserves; (2) apportionments of reserves to DAP; (3) assignments of the sablefish TAC to authorized fishing gear users; (4) apportionments of pollock TAC among regulatory areas, seasons, and between inshore and offshore components; (5) apportionment of Pacific cod TAC between inshore and offshore components; (6) "other species" TAC; (7) prohibited species catch (PSC) limits relevant to fully utilized groundfish species; (8) closures to directed fishing; (9) Pacific halibut PSC mortality limits; and, (10) seasonal apportionments of the halibut PSC limits. A discussion of each of these measures follows. The process of determining TACs for groundfish species in the GOA is established in regulations implementing the FMP, which was prepared by the Council under authority of the Magnuson Fishery Conservation and Management Act (Magnuson Act). The FMP is implemented by regulations for the foreign fishery at 50 CFR part 611 and for the U.S. fishery at 50 CFR parts 672 and 676. General regulations that also pertain to U.S. fisheries appear at 50 CFR part 620.

Pursuant to § 672.20(a)(2)(ii), the sum of the TACs for all species must fall within the combined optimum yield (OY) range of 116,000–800,000 metric tons (mt) established for these species in § 672.20(a)(1). Under §§ 611.92(c)(1) and 672.20(a)(2)(i), TACs are apportioned initially among DAP, JVP, TALFF, and reserves. The DAP amounts are intended for harvest by U.S. fishermen for delivery and sale to U.S. processors. JVP amounts are intended for joint ventures in which U.S. fishermen typically deliver their catches to foreign processors at sea. TALFF amounts are intended for harvest by foreign fishermen. Regulations at § 672.20(a)(2)(ii) establish initial reserves equal to 20 percent of the TACs for pollock, Pacific cod, flounder target species categories, and "other species." Reserve amounts are set aside for possible reapportionment to DAP and/or JVP if the initial apportionments prove inadequate. Reserves that are not reapportioned to DAP or JVP may be reapportioned to TALFF according to § 672.20(d)(2).

The Council met on September 21–26, 1993, and developed recommendations for proposed 1994 TAC specifications for each target species category of groundfish on the basis of the best available scientific information. The Council also recommended other management measures pertaining to the 1994 fishing year. Under § 672.20(c)(1)(ii), 1994 specifications were proposed in the **Federal Register** (58 FR 60575, November 17, 1993). No JVP or TALFF amounts were specified because GOA groundfish are fully utilized by the DAP fisheries. Under § 672.20(c)(1)(ii), one-fourth of the preliminary specifications and gear apportionments and one-fourth of the Pacific halibut PSC amounts were effective January 1 on an interim basis and are now superseded by the final 1994 specifications.

The Council met on December 6–10, 1993, to review the best available scientific information concerning groundfish stocks, and to consider public testimony regarding 1994 groundfish fisheries. Scientific information is contained in the November 1993 SAFE report for the GOA. The November 1993 SAFE report was prepared and presented by the GOA Plan Team to the Council and the Council's Scientific and Statistical Committee (SSC) and Advisory Panel (AP) and includes the most recent information concerning the following:

(a) For pollock: Data from the 1993 spring hydroacoustic survey in Shelikof Strait conducted by the Alaska Fisheries Science Center; egg production estimates of spawning biomass; estimates of catch-at-age from the 1992 fishery; updated estimates of catch; length-frequency data from the 1993 hydroacoustic survey and the first quarter of the 1993 fishery;

(b) For sablefish: Data from the 1993 Cooperative and Domestic Longline Surveys;

(c) For Pacific cod: Size composition data from the NMFS longline surveys of the GOA were updated through 1993;

(e) For flatfish: Ageing information for rex sole allowed computation of F_{30}% and F_{35}% values; and

(f) For groundfish, generally: Harvest and discard data from the NMFS Observer Program Office for 1993.

The Plan Team recommended that, starting in 1994, rex sole be removed from the deep-water flatfish category and be managed as a separate target species category to provide flexibility in managing rockfish bycatch.

For establishment of the acceptable biological catches (ABC) and TACs, the Council considered information in the SAFE report, recommendations from its SSC and AP, as well as public testimony. The SSC adopted the ABC recommendations from the Plan Team, which were provided in the SAFE report, for all of the target species categories, except that for Pacific ocean perch (POP). The Council adopted the SSC ABC recommendations for each target species category, except for POP. The Council's recommended ABCs, listed in Table 1, reflect harvest amounts that are less than the specified overfishing amounts (Table 1).

The SSC calculated the POP ABC by applying a fishing mortality rate of F=0.08 that would reduce the spawning biomass per recruit ratio to 44 percent of its pristine level and further reducing F to 0.04 based on the ratio of current female spawner biomass to the optimal level. This rate was then applied to the 1994 exploitable biomass of 101,800 mt.

The Plan Team reduced this value further by the ratio of $F_{35\%}/F_{30\%}$, resulting in an ABC recommendation of 3,030 mt, to ensure that the ABC was less than the overfishing level of 3,940 mt. The SSC considered this adjustment inappropriate, stating that it arbitrarily foregoes catch without providing biological justification. The SSC recommended that the ABC for POP be set at 3,943 mt. However, the Council adopted the recommendation of the Plan Team and set the ABC for POP at 3,030 mt. The Plan Team's ABC of 3,030 mt better conforms to the policy objectives of the POP rebuilding plan established under Amendment 32 to the FMP, adopted by the Council in September 1993 and submitted for Secretarial review on December 18, 1993.

1. Specifications of TAC and Apportionments Thereof Among DAP, JVP, TALFF, and Reserves

The Council recommended TACs equal to ABCs for pollock, Pacific cod, sablefish, shortraker/rougheye rockfish, pelagic shelf rockfish, demersal shelf rockfish, thornyhead rockfish, and northern rockfish. The recommended TACs for Pacific cod, sablefish, shortraker/rougheye, thornyhead rockfish and northern rockfish are at levels that will support bycatch needs in other fisheries. Other TACs are set at levels that are fully utilized in the directed fisheries. The Council recommended TACs less than the ABC for shallow-water and deep-water flatfish, POP, other slope rockfish, Atka mackerel, rex sole, flathead sole, and arrowtooth flounder (Table 1). The sum of the TACs approved by the Council for all GOA groundfish is 304,595 mt, which is within the OY range specified by the FMP. The sum of the TACs is lower than the 1993 TAC sum of 306,651 mt. The sum of 1994 ABCs for all groundfish is 553,050 mt, which is lower than the 1993 ABC total of 732,868 mt.

For pollock, in September 1993, the Council adopted a preliminary ABC of 78,000 mt for the Western/Central Regulatory Areas. However, at the September Plan Team meeting, the Plan Team requested that four additional exploitation strategies be explored. Based on the results of these new analyses, which were presented at the November 1993 Plan Team meeting, an ABC of 102,000 mt was recommended for the Western/Central Areas. The Plan Team recommendation represents the fishing mortality strategy that was associated with a 95 percent chance of maintaining the spawner biomass level above the threshold level (F=0.20). The Plan Team chose this fishing strategy because of recent trends in poor recruitment of GOA pollock and because of ecosystem concerns. The Council concurred with the conservative exploitation strategy and recommended a TAC and an ABC of 102,000 mt for pollock for the Western/Central GOA for 1994.

The TACs for shallow-water (Western GOA) and deep-water (Central GOA) flatfish and rex sole (Central GOA) were set at 4,500 mt, 7,500 mt and 7,500 mt, respectively. These amounts reflect recent harvest levels and will limit the halibut bycatch associated with these fisheries. The TACs for flathead sole and arrowtooth flounder were set at 10,000 mt and 30,000 mt, respectively, also to limit halibut bycatch. As discussed above, consistent with the Council's previously adopted rebuilding policy for POP, a conservative exploitation rate was recommended. The recommended 1994 TAC of 2,550 mt was based on a rate intermediate between the optimal fishing rate and the rate required to provide unavoidable bycatch. The POP ABC of 3,030 mt, recommended by the Council, provides a buffer between the TAC (2,550 mt) and the overfishing level (3,940 mt). The Council also recommended that the overfishing level for POP be apportioned by regulatory area.

The Council adopted the AP's recommended "other rockfish" TACs for each regulatory area as follows: 199 mt for the Western Regulatory Area; 988 mt for the Central Regulatory Area; and 3,813 mt for the Eastern Regulatory Area. The Council was concerned that the directed fishery for "other rockfish" in the Eastern Regulatory Area could result in high bycatches of other target species categories. The Council was particularly concerned that high bycatches of demersal shelf rockfish (DSR) in the Southeast Outside District of the Eastern Regulatory Area could occur. In 1993, a trawl vessel operator caught substantial amounts of DSR in this district as bycatch while conducting a directed fishery for "other rockfish." As a result, the DSR TAC was reached prematurely and resulted in economic losses to Southeast Alaska fishermen who otherwise depend on DSR for a certain amount of their annual income. Therefore, the Council recommended that the TAC for "other rockfish" be set at an amount that would only support bycatch needs in other directed fisheries. NMFS has determined that a TAC of 1,048 mt for the Eastern Regulatory Area would support bycatch needs in other directed fisheries. This amount was derived using the amount of "other rockfish" bycatch caught by vessels participating in the 1993 pelagic shelf rockfish directed fishery.

Under Amendment 31, approved on October 18, 1993, Atka mackerel was established as a separate target category beginning with the 1994 fishing year. The Council made 1994 recommendations of overfishing and ABC for Atka mackerel. Uncertainty about the biological status of Atka mackerel and the concern that Atka mackerel is a prey species for Steller sea lions prompted the Council to adopt conservative TACs for this target species category. The Council established a TAC of 3,500 mt and apportioned the TAC between the Western (2,500 mt) and Central (1,000 mt) Regulatory Areas. NMFS implements a TAC of 5 mt for Atka mackerel in the Eastern Regulatory Area, raising the total TAC to 3,505 mt, to accommodate small amounts of Atka mackerel that might be caught in this management area. The total amount that was reported to have been caught in the Eastern Regulatory Area during the 1993 fishing year was 0.6 mt. Providing an Atka mackerel TAC in the Eastern Regulatory Area provides consistency with respect to reporting requirements for Atka mackerel in the Central and Western Regulatory Areas, and will be less confusing for the fishing industry. NMFS has adjusted the TAC for the "other species" category and the overall sum of TACs to account for this change.

The Council, after adopting the TACs, recommended 1994 apportionments of the TACs for each species category among DAP, JVP, TALFF, and reserves. Existing harvesting and processing capacity of the U.S. industry is capable of utilizing the entire 1994 TAC specification for GOA groundfish; therefore, the Council recommended that the DAP allowance equal the TAC for each species category, resulting in no TALFF or JVP apportionments for the 1994 fishing year.

NMFS has reviewed the Council's recommendation for TAC specifications and apportionments and hereby approves these specifications under § 672.20(c)(1)(ii)(B), except for "other species."

The 1994 ABCs, TACs, and overfishing levels are shown in Table 1.

TABLE 1.—1994 ABCs, TACs, AND DAPs OF GROUNDFISH (METRIC TONS) FOR THE WESTERN/CENTRAL (W/C), WESTERN (W), CENTRAL (C), AND EASTERN (E) REGULATORY AREAS AND IN THE WEST YAKUTAT (WYK), SOUTHEAST OUTSIDE (SEO), AND GULF-WIDE (GW) DISTRICTS OF THE GULF OF ALASKA

[Amounts specified as Joint Venture Processing (JVP) and Total Allowable Level Of Foreign Fishing (TALFF) are proposed to be zero and are not shown in this table. Reserves are apportioned to DAP]

Species	Area [1]	ABC	TAC	Overfishing
Pollock [2]				
Shumagin	(61)	22,130	22,130}	
Chirikof	(62)	23,870	23,870}	230,000
Kodiak	(63)	56,000	56,000}	
Subtotal	W/C	102,000	102,000	
	E	7,300	7,300	16,400
Total		109,300	109,300	246,400
Pacific cod [3]				
Inshore	W	.....	14,967	
Offshore	W	.....	1,663	
Inshore	C	.....	28,125	
Offshore	C	.....	3,125	
Inshore	E	.....	2,268	
Offshore	E	.....	252	
Subtotals:	W	16,630	16,630	
	C	31,250	31,250	
	E	2,520	2,520	
Total		50,400	50,400	71,100
Flatfish (deep-water) [4]	W	460	460	
	C	12,930	7,500	
	E	3,120	3,120	
Total		16,510	11,080	19,280
Rex sole [4]	W	800	800	
	C	9,310	7,500	
	E	1,840	1,840	
Total		11,950	10,140	13,960
Flathead sole	W	9,120	2,000	
	C	23,080	5,000	
	E	3,650	3,000	
Total		35,850	10,000	39,310
Flatfish (shallow-water) [5]	W	20,290	4,500	
	C	12,950	12,950	
	E	1,180	1,180	
Total		34,420	18,630	44,670
Arrowtooth flounder	W	28,590	5,000	
	C	186,270	20,000	
	E	21,380	5,000	
Total		236,240	30,000	275,930
Sablefish [6]	W	2,290	2,290	
	C	11,220	11,220	
	WYK	4,850	4,850	
	SEO	7,140	7,140	
Total		25,500	25,500	31,700
Pacific ocean perch [7]	W	680	571	880
	C	850	714	1,100
	E	1,500	1,265	1,960
Total		3,030	2,550	3,940
Short raker/rougheye [8]	W	100	100	
	C	1,290	1,290	
	E	570	570	
Total		1,960	1,960	2,900

TABLE 1.—1994 ABCs, TACs, AND DAPs OF GROUNDFISH (METRIC TONS) FOR THE WESTERN/CENTRAL (W/C), WESTERN (W), CENTRAL (C), AND EASTERN (E) REGULATORY AREAS AND IN THE WEST YAKUTAT (WYK), SOUTHEAST OUTSIDE (SEO), AND GULF-WIDE (GW) DISTRICTS OF THE GULF OF ALASKA—Continued

[Amounts specified as Joint Venture Processing (JVP) and Total Allowable Level Of Foreign Fishing (TALFF) are proposed to be zero and are not shown in this table. Reserves are apportioned to DAP]

Species	Area [1]	ABC	TAC	Overfishing
Other rockfish [9,10,11]	W	330	199	
	C	1,640	988	
	E	6,330	1,048	
Total		8,300	2,235	9,850
Northern Rockfish [12]	W	1,000	1,000	
	C	4,720	4,720	
	E	40	40	
Total		5,760	5,760	10,360
Pelagic shelf rockfish [13]	W	1,030	1,030	
	C	4,550	4,550	
	E	1,310	1,310	
Total		6,890	6,890	11,550
Demersal shelf rockfish [11]	SEO	960	960	1,680
Thornyhead rockfish	GW	1,180	1,180	1,440
Atka mackerel [14]	W	.....	2,500	
	C	.....	1,000	
	E	.....	5	
Total		4,800	3,505	19,040
Other species [14]	GW	N/A [15]	14,505	
Total [16]:	553,050	304,595	803,110	

Footnotes

1. Regulatory areas and districts are defined at § 672.2.

2. Pollock is apportioned to three statistical areas in the combined Western/Central Regulatory Area (Table 3), each of which is further divided into equal quarterly allowances. In the Eastern Regulatory Area, pollock is not divided into quarterly allowances.

3. Pacific cod is allocated 90 percent to the inshore, and 10 percent to the offshore component. Component allowances are shown in Table 4.

4. "Deep water flatfish" means Dover sole and Greenland turbot. Rex sole is a separate target species beginning with the 1994 fishing year.

5. "Shallow water flatfish" means flatfish not including "deep water flatfish," flathead sole, rex sole, or arrowtooth flounder.

6. Sablefish is allocated to trawl and hook-and-line gears (Table 2).

7. "Pacific ocean perch" means *Sebastes alutus*.

8. "Shortraker/rougheye rockfish" means *Sebastes borealis* (shortraker) and *S. aleutianus* (rougheye).

9. "Other rockfish" in the Western and Central Regulatory Areas and in the West Yakutat District means slope rockfish and demersal shelf rockfish. The category "other rockfish" in the Southeast Outside District means Slope rockfish.

10. "Slope rockfish" means *Sebastes aurora* (aurora), *S. melanostomus* (blackgill), *S. paucispinis* (bocaccio), *S. goodei* (chilipepper), *S. crameri* (darkblotch), *S. elongatus* (greenstriped), *S. variegates* (harlequin), *S. wilsoni* (pygmy), *S. proriger* (redstripe), *S. zacentrus* (sharpchin), *S. jordani* (shortbelly), *S. brevispinis* (silvergrey), *S. diploproa* (splitnose), *S. saxicola* (stripetail), *S. miniatus* (vermilion), and *S. reedi* (yellowmouth).

11. "Demersal shelf rockfish" means *Sebastes pinniger* (canary), *S. nebulosus* (china), *S. caurinus* (copper), *S. maliger* (quillback), *S. babcocki* (redbanded), *S. helvomaculatus* (rosethorn), *S. nigrocinctus* (tiger), and *S. ruberrimus* (yelloweye).

12. "Northern rockfish" means *Sebastes polyspinis*.

13. "Pelagic shelf rockfish" means *Sebastes melanops* (black), *S. mystinus (blue), S. ciliatus (dusky), S. entomelas (widow), and S. flavidus* (yellowtail).

14. Atka mackerel is a separate target species beginning in 1994. "Other species" means sculpins, sharks, skates, eulachon, smelts, capelin, squid, and octopus. The TAC for "other species" equals 5 percent of the TACs of target species.

15. N/A means not applicable.

16. The total ABC is the sum of the ABCs for target species.

2. Apportionment of Reserves to DAP

Regulations implementing the FMP require 20 percent of each TAC for pollock, Pacific cod, flatfish species, and the "other species" category be set aside in reserves for possible apportionment at a later date (§ 672.20(a)(2)(ii)). For the preceding 6 years, including 1993, NMFS has apportioned all of the reserves to DAP effective on January 1. For 1994, NMFS apportions reserves for each species category to DAP, anticipating that domestic harvesters and processors will need all the DAP amounts. Specifications of DAP shown in Table 1 reflect apportioned reserves. Under § 672.20(d)(5)(iv), the public may submit comments on the apportionments of reserves. Comments should focus on whether, and the extent to which, operators of vessels of the United States will harvest reserve or DAP amounts during the remainder of the year and whether, and the extent to which, U.S. harvested groundfish can or will be processed by U.S. fish processors or received at sea by foreign fishing vessels.

3. Assignment of the Sablefish TACs to Authorized Fishing Gear Users

Under § 672.24(c), sablefish TACs for each of the regulatory areas and districts are assigned to hook-and-line and trawl gear. In the Western and Central Regulatory Areas, 80 percent of each TAC is assigned to hook-and-line gear and 20 percent to trawl gear. In the

Eastern Regulatory Area, 95 percent of the TAC is assigned to hook-and-line gear and 5 percent is assigned to trawl gear. The trawl gear allocation in the Eastern Regulatory Area may only be used as bycatch to support directed fisheries for other target species. Sablefish caught in the GOA with gear other than hook-and-line or trawl gear must be treated as prohibited species and may not be retained. Table 2 shows the assignments of the 1994 sablefish TACs between hook-and-line and trawl gear.

TABLE 2.—1994 SABLEFISH TAC SPECIFICATIONS IN THE GULF OF ALASKA AND ASSIGNMENTS THEREOF TO HOOK-AND-LINE AND TRAWL GEAR

[Values are in metric tons]

Area/district	TAC	Hook-and-line share	Trawl share
Western	2,290	1,832	458
Central	11,220	8,976	2,244
West Yakutat	4,850	4,608	242
Southeast Outside	7,140	6,783	357
Total	25,500	22,199	3,301

4. Apportionments of Pollock TAC Among Regulatory Areas, Seasons, and Between Inshore and Offshore Components

In the GOA, pollock is apportioned by area, season, and inshore/offshore components. Regulations at § 672.20(a)(2)(iv) require that the TAC for pollock in the combined W/C GOA be apportioned among statistical areas Shumagin (61), Chirikof (62), and Kodiak (63) in proportion to known distributions of the pollock biomass. This measure was intended to provide spatial distribution of the pollock harvest as a sea lion protection measure. Each statistical area apportionment is further divided equally among the four quarterly reporting periods of the fishing year (Table 3). Within any fishing year, any unharvested amount of any quarterly allowance of pollock TAC is added in equal proportions to the quarterly allowance of following quarters, resulting in a sum for each quarter that does not exceed 150 percent of the initial quarterly allowance. Similarly, harvests in excess of a quarterly allowance of TAC are deducted in equal proportions from the remaining quarterly allowances of that fishing year. As defined at § 672.23(f), directed fishing for the four quarterly allowances will start on January 1, June 1, July 1, and October 1. The Eastern Regulatory Area pollock TAC of 7,300 mt is not allocated among smaller areas, or quarters.

Regulations at § 672.20(a)(2)(v)(A) require that the DAP apportionment for pollock in all regulatory areas and all quarterly allowances thereof be divided into inshore and offshore components. The inshore component is apportioned 100 percent of the pollock DAP in each regulatory area after subtraction of amounts that are determined by the Regional Director to be necessary to support the bycatch needs of the offshore component in directed fisheries for other groundfish species. At this time, incidental amounts of pollock to be caught by the offshore component are unknown, and will be determined during the fishing year.

TABLE 3.—DISTRIBUTION OF POLLOCK IN THE WESTERN AND CENTRAL REGULATORY AREAS OF THE GULF OF ALASKA (W/C GOA); BIOMASS DISTRIBUTION, AREA APPORTIONMENTS, AND QUARTERLY ALLOWANCES. ABC FOR THE W/C GOA IS 102,000 METRIC TONS (MT)

[Biomass distribution is based on 1990 survey data. TACs are equal to ABC. Inshore and offshore allocations of pollock are not shown. ABCs and TACs are rounded to the nearest 10 mt]

Statistical area	Biomass percent	1994 TAC	Quarterly allowance
Shumagin (61)	21.7	22,130	5,532
Chirikof (62)	23.4	23,870	5,968
Kodiak (63)	54.9	56,000	14,000
Total	100.0	102,000	25,500

5. Apportionment of Pacific Cod TAC Between Inshore and Offshore Components

Regulations at § 672.20(a)(2)(v)(B) require that the DAP apportionment of Pacific cod in all regulatory areas be allocated to vessels catching Pacific cod for processing by the inshore and offshore components. The inshore component is equal to 90 percent of the Pacific cod TAC in each regulatory area with 10 percent of the TAC assigned to the offshore component. Inshore and offshore allocations of the 50,400 mt Pacific cod TAC for 1994 are shown in Table 4.

Table 4.—1994 Allocation of Pacific Cod in the Gulf of Alaska; Allocations to Inshore And Offshore Components

[In metric tons]

Regulatory area	TAC	Component allocation	
		Inshore (90%)	Offshore (10%)
Western	16,630	14,967	1,663
Central	31,250	28,125	3,125
Eastern	2,520	2,268	252
Total	50,400	45,360	5,040

6. "Other Species" TAC

The FMP specifies that the TAC amount for the "other species" category is calculated as 5 percent of the 1994 combined TACs for target species. For 1993, the Council recommended that "other species" be made available separately in each of the three regulatory areas to avoid preemption of fishing activities in the remainder of the GOA by a target fishery for Atka mackerel that developed in the Western Regulatory Area. Approval of Amendment 31, which established Atka mackerel as a separate target species, removed the necessity to apportion "other species" among regulatory areas in 1994. At the December 1993 meeting, the Council recommended a GOA-wide TAC of 14,504 mt for "other species." As discussed above, a 1994 TAC of 5 mt for Atka mackerel in the Eastern Regulatory Area is established by NMFS, thus increasing the TAC for "other species" to 14,505 mt.

7. PSC Limits Relevant to Fully Utilized Species

Under § 672.20(b)(1), if NMFS determines, after consultation with the Council, that the TAC for any species or species group will be fully utilized in the DAP fishery, a groundfish PSC limit applicable to the JVP fisheries may be specified for that species or species group.

The Council recommended that DAP equal TAC for each species category. Zero amounts of JVP are available. NMFS concurs with the Council's recommendation, and has not established any JVP amounts; therefore, no groundfish PSC limits under § 672.20(b)(1) are necessary.

8. Closures to Directed Fishing

The "proposed 1994 Initial Specifications of Groundfish and Associated Management Measures" for the GOA (58 FR 60575, November 17, 1993) contained several closures to directed fishing for groundfish during 1994. The closures for the final specifications are listed in Table 5.

Under § 672.20(c)(2)(ii), the Regional Director determined that the entire TACs or allocations of TAC of some groundfish species and species groups will be needed as incidental catch to support other anticipated groundfish fisheries during 1994. The Regional Director is establishing directed fishing allowances of zero mt and prohibiting directed fishing for the remainder of the year for the fisheries listed in Table 5. Directed fishing standards for the aforementioned closures may be found at § 672.20(g).

Table 5.—Closures to Directed Fishing for Total Allowable Catches Implemented by This Action [1]

[Offshore = The Offshore Component; TRW = Trawl; ALL = All Gears; WG = Western Regulatory Area; CG = Central Regulatory Area; EG = Eastern Regulatory Area; GOA = Entire Gulf of Alaska]

Fishery	Component	Gear	Closed areas
Atka mackerel		ALL	GOA
Northern rockfish		ALL	EG
Other rockfish [2]		ALL	WG,EG
Pacific cod	Offshore	ALL	WG,CG,EG
Pacific ocean perch		ALL	WG,CG,EG
Rex sole		ALL	WG
Sablefish		TRW	WG,CG
Shortraker/rougheye rockfish		ALL	WG,CG,EG
Thornyhead rockfish		ALL	GOA

[1] These closures to directed fishing are in addition to closures and prohibitions found in regulations at 50 CFR Part 672.
[2] Other rockfish includes slope and demersal shelf rockfish in the WG and CG.

9. Halibut Prohibited Species Catch (PSC) Mortality Limits

Under § 672.20(f)(2), annual Pacific halibut PSC limits are established and apportioned to trawl and hook-and-line gear and are established for pot gear. At its December 1993 meeting, the Council recommended that NMFS reestablish 1993 halibut PSC limits of 2,000 mt for trawl gear and 750 mt for hook-and-line gear for 1994. The hook-and-line halibut PSC limit is further apportioned between the DSR fishery (10 mt halibut mortality) and all other hook-and-line fisheries (740 mt).

As in the proposed specifications, the Council recommended that pot gear be exempt from Pacific halibut PSC limits for the 1994 fishing year. The Council proposed this exemption after considering that the groundfish catch and associated halibut bycatch and mortality rates for pot gear are low (5 percent).

At the September 1993 meeting, the Council recommended that NMFS prepare a rule for Secretarial approval that, if approved, would authorize separate apportionments of the trawl halibut bycatch mortality limit between

trawl fisheries for the deep-water species complex (deep-water flatfish, rockfish, sablefish and arrowtooth flounder) and for the shallow-water species complex (pollock, Pacific cod, shallow-water flatfish, flathead sole, Atka mackerel, and "other species"). At its December 1993 meeting, the Council further recommended that this action be implemented under emergency rulemaking so that it could be effective early in 1994. An emergency rule was prepared by NMFS and implemented February 7, 1994 (59 FR 6222, February 10, 1994). The emergency rule specifies trawl fishery apportionments of the 1994 GOA trawl halibut bycatch mortality limit and seasonal apportionments thereof. The emergency rule specifications supersede those set forth in this notice during the effective period of the emergency rule.

NMFS concurs with the Council's recommendations listed above. The following types of information as presented in, and summarized from, the 1993 SAFE report, or as otherwise available from NMFS, Alaska Department of Fish and Game, the International Pacific Halibut Commission (IPHC) or public testimony were considered:

(A) Estimated Halibut Bycatch in Prior Years

The best available information on estimated halibut bycatch is available from 1993 observations of the groundfish fisheries as a result of the NMFS Observer Program. The calculated halibut bycatch mortality by trawl, hook-and-line, and pot gear through December 16, 1993, is 1,993 mt, 1,279 mt, and 2.4 mt, respectively, for a total of 3,214 mt. Halibut bycatch restrictions seasonally constrained trawl gear fisheries during the first, second, and third quarters of the fishing year. Halibut mortality did not constrain trawling effort in the fourth quarter of 1993. Trawling, with the exception of trawling for pollock with pelagic trawl gear, was closed in 1993 from March 24 to March 29 (58 FR 16372, March 26, 1993), from April 19 to June 28 (58 FR 21545, April 22, 1993), and from August 3 to October 4 (58 FR 41640, August 5, 1993) as a result of halibut PSC seasonal allowances. Hook-and-line gear was closed to directed fishing for all but DSR on June 4 to December 31, 1993 (58 FR 32064, June 8, 1993; 58 FR 46095, September 1, 1993).

The amount of groundfish that trawl or hook-and-line gear might have harvested if halibut had not been seasonally limiting in 1993 is unknown. Even though halibut mortality was not constraining in the fourth quarter of 1993, some amounts of groundfish remained unharvested. Sablefish and Pacific cod are of the most interest to fishermen using hook-and-line gear. Over 900 mt of sablefish in the Western Regulatory Area, and 1,000 mt of Pacific cod in the Eastern Regulatory Area remained unharvested during 1993. An unknown portion of these amounts likely would have been harvested had 1993 halibut restrictions not been limiting.

(B) Expected Changes in Groundfish Stocks

At its December 1993 meeting, the Council adopted lower ABCs for pollock, Pacific cod, deep-water flatfish, flathead sole, shallow-water flatfish, arrowtooth flounder, and POP than those established for 1993. The Council adopted higher ABCs for sablefish, pelagic shelf rockfish, and demersal shelf rockfish than those established for 1993. The ABCs for other groundfish are unchanged from 1993 levels. Rex sole and Atka mackerel were separated out of deepwater flatfish and "other species," and established as separate target species categories for 1994. More information on these changes is included in the Final SAFE report dated November 1993 and in the Council and SSC minutes.

(C) Expected Changes in Groundfish Catch

The total of the 1994 TACs for the GOA is 304,595 mt, a slight decrease from the 1993 TAC total of 306,651 mt. At its December 1993 meeting, the Council changed the 1994 TACs for some fisheries from the 1993 TACs. Those fisheries for which the 1994 TACs were lower than in 1993 are pollock (decreased to 109,300 mt from 114,400 mt), Pacific cod (decreased to 50,400 mt from 56,700 mt), POP (decreased to 2,550 mt from 2,560 mt), and "other rockfish" (decreased to 2,235 mt from 5,383 mt). Rex sole was separated from the deep-water flatfish complex in 1994 and assigned a separate TAC resulting in a slight increase in the total TAC for the two target groups but reducing the TAC for deep-water flatfish. Those species for which the 1994 TAC was higher than in 1993 are shallow-water flatfish (increased to 18,630 mt from 16,240 mt), sablefish (increased to 25,500 mt from 20,900 mt), shortraker/rougheye (increased to 1,960 mt from 1,764 mt), pelagic shelf rockfish (increased to 6,890 mt from 6,740 mt), DSR (increased to 960 mt from 800 mt) and thornyhead rockfish (increased to 1,180 mt from 1,062 mt).

(D) Current Estimates of Halibut Biomass and Stock Condition

The stock assessment for 1992 conducted by the IPHC indicates that the total exploitable biomass of Pacific halibut was 265.8 million pounds. This represents a decline in biomass of 11 percent from the previous stock assessment, a rate similar to declines observed in previous years. The decline is expected to continue over the next few years as a consequence of reduced recruitment.

(E) Potential Impacts of Expected Fishing for Groundfish on Halibut Stocks and U.S. Halibut Fisheries

Halibut fisheries will be adjusted to account for the overall halibut PSC mortality limit established for groundfish fisheries. The 1994 groundfish fisheries are expected to use the entire halibut PSC limit of 2,750 mt. The allowable directed commercial catch is determined by accounting for the recreational catch, waste, and bycatch mortality, and then providing the remainder to the directed fishery. Therefore, although the amount of halibut available for directed halibut fisheries will be reduced, halibut bycatch in groundfish fisheries is not expected to have any effect on halibut stocks.

(F) Methods Available for, and Costs of, Reducing Halibut Bycatches in Groundfish Fisheries

Halibut bycatch may be reduced by (1) reducing amounts of groundfish TACs, (2) reducing halibut bycatch rates through a Vessel Incentive Program, (3) modifications to gear and fish handling procedures, and (4) changes in groundfish fishing seasons.

Reductions in groundfish TACs do not usually provide incentives for fishermen to reduce bycatch rates. Costs that would be imposed on fishermen as a result of reducing TACs depend on species and amounts of groundfish foregone.

Trawl vessels carrying observers for purposes of complying with the Observer Plan are subject to the Vessel Incentive Program. The program encourages trawl fishermen to avoid high halibut bycatch rates while conducting groundfish fisheries by specifying bycatch rate standards for various target fisheries.

Current regulations require groundfish pots to have halibut exclusion devices to reduce halibut bycatches. Resulting low bycatch and mortality rates of halibut in pot fisheries have justified exempting pot gear from PSC limits. Because halibut bycatch

mortality in the pot fisheries is so low, and not expected to increase during 1994, the Council has again recommended exempting these fisheries from halibut bycatch restrictions in 1994, as it did in 1993. A recent change in the definition of pelagic trawl gear is intended to reduce bycatch of halibut by displacing fishing effort off the bottom of the sea floor when certain halibut bycatch levels are reached during the fishing year. The definition provides standards for physical conformation and also for performance of the trawl gear in terms of crab bycatch (58 FR 39680, July 26, 1993). A recent regulatory change required all hook-and-line vessel operators to employ careful release measures when handling halibut bycatch (58 FR 28799, May 17, 1993). This measure is intended to reduce handling mortality, increase the amount of groundfish harvested with the available halibut mortality limits, and possibly lower overall halibut mortality in groundfish fisheries.

Halibut bycatch will potentially be reduced by changes in some groundfish fishing seasons. The sablefish hook-and-line season starts May 18, and the rockfish trawl fishery is delayed until the third quarter, July 4. These delays postpone the start of the sablefish and rockfish fisheries to times when seasonal halibut bycatch rates are lower.

Methods listed under (F) above, will be reviewed by NMFS and the Council to determine their effectiveness. Changes will be initiated as necessary in response to this review or to public testimony and comment, either through regulatory or FMP amendments.

Consistent with the goals and objectives of the FMP to reduce halibut bycatches while providing an opportunity to harvest the groundfish OY, NMFS proposes the assignments of 2,000 mt and 750 mt of halibut PSC mortality limits to trawl and hook-and-line gear, respectively. While these limits will reduce the harvest quota for commercial halibut fishermen, NMFS has determined that they will not result in unfair allocation to any particular user group. NMFS recognizes that some halibut bycatch will occur in the groundfish fishery, but expansion of the Vessel Incentive Program, required modifications to gear and handling procedures, and delays to the start of the sablefish hook-and-line gear and rockfish trawl gear fisheries are intended to reduce adverse impacts on halibut fishermen while promoting the opportunity to achieve the OY from the groundfish fishery.

10. Seasonal Allocations of the Halibut PSC Limits

Under § 672.20(f)(2), NMFS seasonally allocates the halibut PSC limits based on recommendations from the Council. The FMP requires that the following information be considered by the Council in recommending seasonal allocations of halibut (a) seasonal distribution of halibut, (b) seasonal distribution of target groundfish species relative to halibut distribution, (c) expected halibut bycatch needs on a seasonal basis relevant to changes in halibut biomass and expected catches of target groundfish species, (d) expected bycatch rates on a seasonal basis, (e) expected changes in directed groundfish fishing seasons, (f) expected actual start of fishing effort, and (g) economic effects of establishing seasonal halibut allocations on segments of the target groundfish industry. The Council recommended the same seasonal allowances of PSC limits for the 1994 fishing year as those in effect during the 1993 fishing year. The publication of the final 1993 initial groundfish and PSC specifications (58 FR 16787, March 31, 1993) summarizes Council findings with respect to each of the FMP considerations set forth above. At this time, the Council's findings are unchanged from those set forth in 1993. Pacific halibut PSC limits, and apportionments thereof, are presented in Table 6. Regulations specify that overages and shortfalls in PSC catches will be accounted for within the 1994 fishing year.

Slight adjustments from the 1993 seasonal allocations are proposed to accommodate dates of anticipated fishing effort and the opening date of the hook-and-line directed fishery for sablefish (May 18, 1994). Trawling for rockfish species will start on July 4, 1994 in accordance with § 672.23(d).

TABLE 6.—1994 PACIFIC HALIBUT PSC LIMITS, ALLOWANCES, AND APPORTIONMENTS. THE PACIFIC HALIBUT PSC LIMIT FOR HOOK-AND-LINE GEAR IS ALLOCATED TO THE DEMERSAL SHELF ROCKFISH (DSR) FISHERY AND FISHERIES OTHER THAN DSR. VALUES ARE IN METRIC TONS. ALL ALLOWANCES AND APPORTIONMENTS OTHER THAN THOSE ON JANUARY 1 AND DECEMBER 31 BEGIN AND END AT 12:00 NOON, ALASKA LOCAL TIME

Trawl gear		Hook-and-line gear			
		Other than DSR		DSR	
Dates	Amount	Dates	Amount	Dates	Amount
Jan. 1–Apr. 1	600 (30%)	Jan. 1–May 18	200 (27%)	Jan. 1–Dec. 31	10 (100%).
Apr. 1–Jul. 1	400 (20%)	May 18–Aug. 31	500 (68%)		
Jul. 1–Oct. 1	600 (30%)	Sep. 1–Dec. 31	40 (5%)		
Oct. 1–Dec. 31	400 (20%)				
Total	2,000 (100%)		740 (100%)		10 (100%)

Assumed halibut mortality rates for halibut PSC bycatch in 1994 are similar to those used in 1993 and are unchanged from those established in the proposed specifications. These rates are listed in Table 7 and reflect mandatory careful release measures implemented during 1993 (58 FR 28799, May 17, 1993). Further information on halibut mortality can be found in the November SAFE report. NMFS has determined that the Council's recommendation for the seasonal apportionments of the Pacific halibut PSC to gear types and the assumed mortality rates are appropriate and is implementing the Council's recommendations.

TABLE 7.—1994 ASSUMED PACIFIC HALIBUT MORTALITY RATES FOR VESSELS FISHING IN THE GULF OF ALASKA WITH MANDATORY CAREFUL RELEASE MEASURES

[Table Values are Percent of Halibut Bycatch Assumed to be Dead]

Gear and target	Observed vessels	Unobserved vessels
Hook-and-line:		
Sablefish	14.0	17.0
Other targets	11.5	14.0
Trawl:		
Pelagic pollock	75.0	75.0
Rockfish, shallow water flatfish, "other spp.," Atka mackerel	60.0	60.0
Pacific cod, non-pelagic pollock, deep water flats, rex sole	55.0	55.0
Pot:		
All targets	5.0	5.0

Opening Date of the Directed Fishery for Sablefish for Hook-and-Line Gear

Under regulations at § 672.23(c), the opening date for the directed fishing season for sablefish with hook-and-line gear is the calendar day from May 9 through May 22 upon which the tide with the smallest tidal range occurs. According to annual tide tables published by NOAA for 1994, this date is May 18, 1994. Therefore, in accordance with § 672.23 (b) and (c), the season will commence at 12:00 noon, Alaska local time, May 18, 1994.

Responses to Comments

Written comments on the proposed 1994 specifications and other management measures were requested until December 10, 1993. No written comments were received on the specifications as proposed.

Classification

This action apportions reserves to DAP fisheries on a date other than those specified in § 672.20(d)(i). The Assistant Administrator for Fisheries, NOAA, finds that it is necessary to waive the opportunity for prior public comment provided by the regulations to prevent premature closure of the fishery. In accordance with § 672.20(d)(5)(iv), comments are invited on the reserve apportionments as noted in "DATES" above.

List of Subjects in 50 CFR Part 611

Fisheries, Foreign relations, Reporting and recordkeeping requirements.

50 CFR Parts 672 and 676

Fisheries, Reporting and recordkeeping requirements.

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

Dated: February 10, 1994.

Charles Karnella,

Acting Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service.

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50 CFR Parts 611, 675 and 676

[Docket No. 931100–4043; I.D. 110193D]

Foreign Fishing; Groundfish Fishery of the Bering Sea and Aleutian Islands; Limited Access Management of Federal Fisheries In and Off of Alaska

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final 1994 initial specifications of groundfish and associated management measures; closures.

SUMMARY: NMFS announces final specifications of total allowable catches (TACs), initial apportionments of TACs for each category of groundfish, and associated management measures in the Bering Sea and Aleutian Islands management area (BSAI) during the 1994 fishing year. This action is necessary to establish harvest limits and associated management measures for groundfish during the 1994 fishing year. NMFS also is closing specified fisheries consistent with the final 1994 groundfish specifications and fishery bycatch allowances of prohibited species. These measures are intended to conserve and manage the groundfish resources in the BSAI.

EFFECTIVE DATE: February 10, 1994 through 24:00 Alaska local time (A.l.t.) on December 31, 1994, or until changed by subsequent notice in the **Federal Register**. All closures to directed fishing are effective through 24:00 A.l.t. December 31, 1994.

ADDRESSES: Comments on directed fishing closures should be sent to Ronald J. Berg, Chief, Fisheries Management Division, Alaska Region, NMFS, P.O. Box 21668, Juneau, Alaska 99802–1668 (Attn: Lori Gravel). The final Environmental Assessment prepared for the 1994 TAC specifications may be obtained from the same address, or by calling 907–586–7229. The final Stock Assessment and Fishery Evaluation (SAFE) report may be requested from the North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, AK 99510 (907–271–2809).

FOR FURTHER INFORMATION CONTACT: Ellen R. Varosi, Fishery Management Biologist, NMFS, 907–586–7228.

SUPPLEMENTARY INFORMATION: Groundfish fisheries in the BSAI are governed by Federal regulations at 50 CFR part 675 that implement the Fishery Management Plan for the Groundfish Fishery of the BSAI (FMP). Other applicable regulations are found at 50 CFR 611.93 (foreign fishing) and 50 CFR part 676 (limited entry fisheries off of Alaska). The FMP was prepared by the North Pacific Fishery Management Council (Council) and approved by the Secretary of Commerce (Secretary) under the Magnuson Fishery Conservation and Management Act (Magnuson Act).

The FMP and implementing regulations require the Secretary, after consultation with the Council, to specify annually the apportionments of prohibited species catch (PSC) limits among fisheries and seasons (§ 675.21(b)), the TAC, initial domestic annual harvest (DAH), and initial total allowable level of foreign fishing (TALFF) for each target species and the "other species" category (§ 675.20(a)(2)). The sum of the TACs must be within the optimum yield (OY) range of 1.4 million to 2.0 million metric tons (mt) (§ 675.20(a)(2)). Specifications set forth in Tables 1–7 of this action satisfy these requirements. For 1994, the sum of TACs is 2,000,000 mt.

Proposed BSAI groundfish specifications and specifications for prohibited species bycatch allowances for the groundfish fishery of the BSAI were published in the **Federal Register** on November 17, 1993 (58 FR 60584). Comments were invited through December 10, 1993. No written

comments were received within the comment period. Verbal comments were received, and public consultation with the Council occurred during the Council meeting in Seattle, Washington, held December 6–10, 1993. Council recommendations and biological and economic data that were available at the Council's December meeting were considered in implementing the final 1994 specifications.

The specified TAC for each species is based on the best available biological and socioeconomic information. The Council, its Advisory Panel (AP), and its Scientific and Statistical Committee (SSC) reviewed current biological information about the condition of groundfish stocks in the BSAI at their September and December 1993 meetings. This information was compiled by the Council's BSAI Groundfish Plan Team and is presented in the final 1994 SAFE report for the BSAI groundfish fisheries, dated November 1993. The Plan Team annually produces such a document as the first step in the process of specifying TACs. The SAFE report contains a review of the latest scientific analyses and estimates of each species' biomass and other biological parameters. From these data and analyses, the Plan Team estimates an acceptable biological catch (ABC) for each species category.

A summary of the preliminary ABCs for each species for 1994 and other biological data from the September 1993 draft SAFE report were provided in the discussion supporting the proposed 1994 specifications. The Plan Team's recommended ABCs were reviewed by the SSC, AP, and Council at their September 1993 meetings. Based on the SSC's comments concerning technical methods and new biological data not available in September, the Plan Team revised its ABC recommendations in the final SAFE report dated November 1993. The revised ABC recommendations were again reviewed by the SSC, AP, and Council at their December 1993 meetings. While the SSC endorsed most of the Plan Team's recommendations for 1994 ABCs set forth in the final SAFE report, the SSC recommended revisions to ABC amounts calculated for Bogoslof pollock, Greenland turbot, and Atka mackerel. The Council adopted the SSC's recommendations for the 1994 ABSs. The final ABCs, listed in Table 1, reflect harvest amounts that will not cause overfishing as defined in the FMP.

TABLE 1.—FINAL 1994 SPECIFICATIONS OF THE ACCEPTABLE BIOLOGICAL CATCH (ABC), TOTAL ALLOWABLE CATCH (TAC), INITIAL TAC (ITAC) WHICH EQUAL THE DOMESTIC ANNUAL PROCESSING (DAP), AND OVERFISHING LEVELS OF GROUNDFISH IN THE BERING SEA AND ALEUTIAN ISLANDS AREA.[1 2]

Species	ABC	TAC	ITAC=DAP[3]	Over fishing level
Pollock:				
Bering Sea (BS)	1,330,000	1,330,000	1,130,500	1,590,000
Aleutian Islands (AI)	56,600	56,600	48,110	60,400
Bogoslof District	31,750	1,000	850	31,750
Pacific cod	191,000	191,000	162,350	228,000
Sablefish:				
BS	540	540	459	670
AI	2,800	2,800	2,380	3,490
Atka mackerel TOTAL	122,500	68,000	57,800	484,000
Western AI	53,900	10,000	8,500	.....
Central AI	55,125	44,525	37,846	.....
Eastern AI, BS	13,475	13,475	11,454	.....
Yellowfin sole	230,000	150,325	127,776	269,000
Rock sole	313,000	75,000	63,750	363,000
Greenland turbot	7,000	7,000	5,950	24,800
BS	.....	4,667	3,967	.....
AI	.....	2,333	1,983	.....
Arrowtooth flounder	93,400	10,000	8,500	130,000
Other flatfish[4]	225,000	56,000	47,600	270,000
Pacific Ocean perch:				
BS	1,910	1,910	1,624	2,920
AI	10,900	10,900	9,265	16,600
Other red rockfish:[5]				
BS	1,400	1,400	1,190	1,400
Sharpchin/Northern:				
AI	5,670	5,670	4,820	5,670
Shortraker/Rougheye:				
AI	1,220	1,220	1,037	1,220
Other rockfish:[6]				
BS	365	365	310	365
AI	770	770	655	770
Squid	3,110	3,110	2,644	3,110
Other Species[7]	27,500	26,390	22,432	141,000
Totals	2,656,435	2,000,000	1,700,000	.....

[1] Amounts are in metric tons. These amounts apply to the entire Bering Sea (BS) and Aleutian Islands (AI) area unless otherwise specified. With the exception of pollock and for the purpose of these specifications, the BS includes the Bogoslof district.

[2] Zero amounts of groundfish are specified for Joint Venture Processing (JVP) and Total Allowable Level of Foreign Fishing (TALFF).

[3] Initial TAC (ITAC)=0.85 of TAC; initial reserve=TAC – ITAC=300,000 mt.

[4] "Other flatfish" includes all flatfish species except for Pacific halibut (a prohibited species) and all other flatfish species that have a separate specified TAC amount.

[5] "Other red rockfish" includes shortraker, rougheye, sharpchin, and northern.

[6] "Other rockfish" includes all *Sebastes* and *Sebastolobus* species except for Pacific ocean perch, sharpchin, northern, shortraker, and rougheye.

[7] "Other species" includes sculpins, sharks, skates, eulachon, smelts, capelin, and octopus.

The SSC's revisions to the ABCs recommended by the Plan Team for Bogoslof pollock, Greenland turbot and Atka mackerel are discussed below.

Bogoslof Pollock

The Plan Team indicated in the final 1994 SAFE report that the current estimate of biomass of Aleutian Basin pollock (490,000 mt) is the best estimate, assuming that no recruitment to the stock has occurred and that natural mortality (M) is 0.2. Reassessment of the Bogoslof area hydroacoustic survey with new threshold levels of abundance has not changed previous conclusions that this stock has declined since 1988. The Plan Team assumed that no recruitment occurred in 1993 or will occur in 1994, and projected a biomass for 1994 of 490,000 mt using M=.02. The Plan Team then calculated the $F_{0.35}$ exploitation rate of 0.26 to derive an ABC of 127,000. The SSC, however, adjusted the exploitation rate downward by 25 percent to select a ratio of current biomass to optimal biomass. This leads to an ABC of 31,750. Due to lack of recruitment predicted for 1993 and 1994, the Council recommended a TAC of 1,000 mt to provide for bycatch in other groundfish operations.

Greenland Turbot

The Plan Team used a new stock synthesis model to estimate the ABC, which was updated with catch and survey data through October 1993. A more conservative exploitation rate of $F_{0.40}$ and an increased slope survey catchability coefficient of 0.75 was selected. These adjustments resulted in a conservative ABC of 17,200 mt. Continued poor recruitment and stock abundance levels lead the SSC to recommend a continuation of the present 7,000 mt ABC for this species. The Council concurred with this recommendation and set the TAC at 7,000 for this species. The Council further recommended apportioning two-thirds of the Greenland turbot TAC (4,667 mt) to the eastern Bering Sea, and one-third of the TAC (2,333 mt) to the Aleutian Islands in proportion to the biomass estimates in these areas. The Council's recommendation will spread fishing effort over a larger area.

Atka Mackerel

The SSC accepted the Plan Team's 1994 estimate of ABC (245,000 mt), although it expressed concern that the time series of trawl surveys is short and inconsistent in coverage. The SSC also was apprehensive about possible environmental problems that may result from an increased catch of the magnitude implied by the Plan Team's estimate of 1994 ABC. Atka mackerel is a prey species of northern fur seals and Steller sea lions. During their migrations, northern fur seals (a depleted species) feed heavily on Atka mackerel as they move through the Aleutian passes. Given these concerns, the SSC recommended to continue its 1992 and 1993 policy to phase in the Plan Team's estimate of ABC over a 6-year period by adopting the 1993 biomass estimate (816,000 mt) and raising the exploitation rate in steps. These incremental steps are as follows: (M)(1)/6 in 1992, (M)(2)/6 in 1993, (M)(3)/6 in 1994, (M)(4)/6 in 1995, (M)(5)/6 in 1996 and M in 1997. According to this schedule, the recommended ABC for 1994 is (0.30/2)(816,000)=122,500 mt. The main purpose of this approach is to postpone a large ABC increase until new survey estimates are available to evaluate the phase-in policy.

Amendment 28 to the BSAI FMP became effective August 11, 1993 (58 FR 37660, July 13, 1993). This amendment establishes three new management districts in the Aleutian Islands (AI) subarea (western, central, and eastern AI management districts) for the purpose of apportioning TAC of groundfish. The intent of this action is to improve TAC management, disperse fishing effort, and minimize the potential for undesirable effects of concentrated fishing effort. The Council recommended a 68,000 mt TAC for Atka mackerel in the BSAI in 1994. Based on the authority provided by Amendment 28, the Council recommended apportionment of the TAC for Atka mackerel among the AI management districts and the Bering Sea relative to survey biomass estimates: 10,000 mt in the western area; 44,525 mt in the central area; and 13,475 mt in the eastern area and Bering Sea combined.

TAC Specifications

The Council developed its TAC recommendations (Table 1) based on the final ABCs as adjusted for other biological and socioeconomic considerations, including maintaining the total TAC in the required OY range of 1.4–2.0 million mt. Each of the Council's recommended TACs for 1994 is equal to or less than the final 1994 ABC for each species category. Therefore, NMFS finds that the recommended TACs are consistent with the biological condition of groundfish stocks. The final ABCs, TACs, ITACs, overfishing levels and initial apportionments of groundfish in the BSAI area for 1994 are given in Table 1 of this action. The apportionment of pollock TACs among fisheries and seasons is discussed below.

Apportionment of TAC

As required by §§ 675.20(a)(3) and 675.20(a)(7)(i), each species' TAC initially is reduced by 15 percent. The sum of these 15 percent amounts is the reserve. The reserve is not designated by species or species group, and any amount of the reserve may be reapportioned to a target species or the "other species" category during the year, providing that such reapportionments do not result in overfishing.

The initial TAC (ITAC) for each target species and the "other species" category at the beginning of the year, which is equal to 85 percent of TAC, is then apportioned between the domestic annual harvest (DAH) category and the total allowable level of foreign fishing (TALFF). Each DAH amount is further apportioned between two categories of U.S. fishing vessels. The domestic annual processing (DAP) category includes U.S. vessels that process their catch on board or deliver it to U.S. fish processors. The joint venture processing (JVP) category includes U.S. fishing vessels working in joint ventures with foreign processing vessels authorized to receive catches in the U.S. exclusive economic zone.

In consultation with the Council, the initial amounts of DAP and JVP are determined by the Director, Alaska Region, NMFS (Regional Director). Consistent with the final notice of 1991–1993 initial specifications, the Council recommended that 1994 DAP specifications be set equal to TAC and that zero amounts of groundfish be allocated to JVP and TALFF. In making this recommendation, the Council considered the capacity of DAP harvesting and processing operations and anticipated that 1994 DAP operations will harvest the full TAC specified for each BSAI groundfish species category.

Apportionment of the Pollock TAC to the Inshore and Offshore Components and to the Western Alaska Community Development Quota

Regulations at § 675.20(a)(2)(iii) require that the 1994 pollock ITAC specified for the BSAI be allocated 35 percent to vessels catching pollock for processing by the inshore component and 65 percent to vessels catching pollock for processing by the offshore component (Table 2). Definitions of these components are found at § 675.2.

TABLE 2.—SEASONAL ALLOWANCES OF THE INSHORE AND OFFSHORE COMPONENT ALLOCATIONS OF POLLOCK TACS [1, 2]

Subarea	TAC	ITAC [3]	Roe season [4]	Non-roe season [5]
Bering Sea:				
Inshore	.....	395,675	178,054	217,621.
Offshore	.....	734,825	330,671	404,154.
	1,330,000	1,130,500	508,725	621,775.
Aleutian Islands:				
Inshore	.....	16,838	16,838	Remainder.
Offshore	.....	31,272	31,272	Remainder.
	56,600	48,110	48,110	Remainder.
Bogoslof:				
Inshore	.....	298	298	Remainder.
Offshore	.....	552	552	Remainder.
	1,000	850	850	Remainder.

[1] TAC=total allowable catch.
[2] Based on an offshore component allocation of 0.65(TAC) and an inshore component allocation of 0.35(TAC).
[3] ITAC=initial TAC=0.85 of TAC;
[4] January 1 through April 15—based on a 45/55 split (roe=45%).
[5] August 15 through December 31—based on a 45/55 split (non-roe=55%).

Regulations at § 675.20(a)(3)(ii) require one-half of the pollock TAC to be placed in the reserve for each subarea or district, or 7.5 percent of each TAC to be assigned to a Community Development Quota (CDQ) reserve for each subarea or district. Given the 1994 pollock TACs specified in Table 1, the 1994 CDQ reserve amounts for each subarea is as follows:

BSAI subarea	Pollock CDQ (mt)
Bering Sea	99,750
Aleutian Islands	4,245
Bogoslof	75

Under regulations governing the CDQ program at § 675.27, NMFS may allocate the 1994 pollock CDQ reserves to eligible Western Alaska communities or groups of communities that have an approved community development plan (CDP). The Secretary has approved six CDP's and associated percentages of the CDQ reserve for each CDP recipient for 1994 (58 FR 61031, November 19, 1993). Table 3 lists the approved CDP recipients, and each recipient's allocation of the 1994 pollock CDQ reserve for each subarea.

TABLE 3.—APPROVED SHARES (%'S) AND RESULTING ALLOCATIONS AND SEASONAL ALLOWANCES (METRIC TONS) OF THE 1994 POLLOCK CDQ RESERVE SPECIFIED FOR THE BERING SEA (BS), ALEUTIAN ISLANDS (AI), AND BOGOSLOF (BF) SUBAREAS AMONG APPROVED CDP RECIPIENTS

CDP Recipient	Percent	Area	Allocation	Roe season allowance [1]
Aleutian Pribilof Island Community Development Assn	18	BS	17,955	8,080
		AI	764	344
		BF	14	6
Total	.....	.....	18,733	8,430
Bristol Bay Economic Development Assn	20			
		BS	19,950	8,977
		AI	849	382
		BF	15	7
Total	.....	.....	20,814	9,366
Central Bering Sea Fishermen's Assn	8	BS	7,980	3,591
		AI	340	153
		BF	6	3
Total	.....	.....	8,326	3,747
Coastal Villages Fishing Coop	27	BS	26,933	12,120
		AI	1,146	516
		BF	20	9
Total	.....	.....	28,099	12,645
Norton Sound Economic Development Corp	20	BS	19,950	8,977
		AI	849	382
		BF	15	7
Total	.....	.....	20,814	9,366
Yukon Delta Fisheries Development Assn	7	BS	6,982	3,142
		AI	297	134

TABLE 3.—APPROVED SHARES (%'S) AND RESULTING ALLOCATIONS AND SEASONAL ALLOWANCES (METRIC TONS) OF THE 1994 POLLOCK CDQ RESERVE SPECIFIED FOR THE BERING SEA (BS), ALEUTIAN ISLANDS (AI), AND BOGOSLOF (BF) SUBAREAS AMONG APPROVED CDP RECIPIENTS—Continued

CDP Recipient	Percent	Area	Allocation	Roe season allowance [1]
		BF	5	2
Total			7,284	3,278
Total	100		104,070	46,832

[1] No more than 45 percent of a CDP recipient's 1994 pollock allocation may be harvested during the pollock roe season, January 1 through April 15.

Seasonal Allowances of Pollock TAC

Under § 675.20(a)(2)(ii), the ITAC of pollock for each subarea or district of the BSAI area is divided, after subtraction of reserves (§ 675.20(a)(3)), into two allowances. The first allowance will be available for directed fishing from January 1 to April 15 (roe season). The second allowance will be available from August 15 through the end of the fishing year (non-roe season).

The Council recommended that the 1994 seasonal allowances of pollock be set at the same relative levels as in 1993 with 45 percent of the pollock ITAC specified for each management subarea or district during the roe season and 55 percent during the non-roe season (Table 2). Although the Council is authorized under § 675.20(a)(7)(ii) to recommend seasonal allowances of the 1994 CDQ pollock reserve, it did not take such action at its December 1993 meeting. Therefore NMFS is limiting the 1994 fishery to 45 percent of the CDQ reserve during the roe season, consistent with the seasonal split recommended by the Council for the inshore/offshore pollock fisheries.

When specifying seasonal allowances of the pollock TAC, the Council and the Secretary consider the following nine factors as specified in section 14.4.10 of the FMP:

1. Estimated monthly pollock catch and effort in prior years;
2. Expected changes in harvesting and processing capacity and associated pollock catch;
3. Current estimates of, and expected changes in, pollock biomass and stock conditions; conditions of marine mammal stocks; and biomass and stock conditions of species taken as bycatch in directed pollock fisheries;
4. Potential impacts of expected seasonal fishing for pollock on pollock stocks, marine mammals, and stocks and species taken as bycatch in directed pollock fisheries;
5. The need to obtain fishery data during all or part of the fishing year;
6. Effects on operating costs and gross revenues;
7. The need to spread fishing effort over the year, minimize gear conflicts, and allow participation by various elements of the groundfish fleet and other fisheries;
8. Potential allocative effects among users and indirect effects on coastal communities; and
9. Other biological and socioeconomic information that affects the consistency of seasonal pollock harvests with the goals and objectives of the FMP.

A discussion of these factors relative to the roe and non-roe seasonal allowances (45 and 55 percent of the TAC, respectively) was contained in the final 1993 specifications for BSAI groundfish (58 FR 8703, February 17, 1993). Considerations under these factors remain unchanged from 1993 given that the relative seasonal allowances for 1993 and 1994 are the same.

Apportionment of Pollock TAC to the Non-Pelagic Trawl Gear Fishery

Regulations under § 675.24(c)(2) authorize the Secretary, in consultation with the Council, to limit the amount of pollock TAC that may be taken in the directed fishery for pollock using non-pelagic trawl gear. This authority is intended to reduce the amount of halibut and crab bycatch that occurs in non-pelagic trawl operations.

Regulations were implemented during 1993 to more effectively limit the bycatch of halibut and crab when directed fishing for pollock with non-pelagic trawl gear is closed (58 FR 39680, July 26, 1993). Given these regulatory constraints, the Council did not recommend limiting the amount of pollock TAC that may be taken in the 1994 directed fishery for pollock by vessels using non-pelagic trawl gear. NMFS concurs in the Council's recommendation, and no limit on the amount of pollock TAC that may be taken in the directed fishery for pollock using non-pelagic trawl gear is specified.

Allocation of the Pacific Cod TAC

At its June 1993 meeting, the Council adopted Amendment 24 to the FMP, which authorizes fixed allocations of the Pacific cod TAC among vessels using trawl gear, hook-and-line gear or pot gear, and jig gear. A final rule implementing Amendment 24 was published in the **Federal Register** on January 28, 1994 (59 FR 4009). That final rule specifies gear allocations of the 1994 Pacific cod TAC and seasonal apportionments of the amount of Pacific cod TAC allocated to vessels using hook-and-line or pot gear.

Sablefish Gear Allocation

Regulations under § 675.24(c)(1) require that sablefish TACs for the Bering Sea and Aleutian Islands subareas be divided between trawl and hook-and-line/pot gear fisheries. Gear allocations of TACs are specified in the following proportions: Bering Sea subarea: trawl gear—50 percent; hook-and-line/pot gear—50 percent, and Aleutian Islands subarea: trawl gear—25 percent; hook-and-line/pot gear—75 percent (Table 4).

TABLE 4.—1994 GEAR SHARES OF BSAI SABLEFISH TAC

Subarea	Gear	Percent of TAC	Share of TAC (mt)	Share of ITAC (mt) [1]
Bering Sea [2]	Trawl	50	270	230
	Hook-and-line/pot gear	50	270	229
Aleutian Islands	Trawl	25	700	595

TABLE 4.—1994 GEAR SHARES OF BSAI SABLEFISH TAC—Continued

Subarea	Gear	Percent of TAC	Share of TAC (mt)	Share of ITAC (mt)[1]
	Hook-and-line/pot gear	75	2,100	1,785

[1] Initial TAC (ITAC)=0.85 of TAC, rounded to the nearest whole mt; 0.15 of TAC is apportioned to reserve. The sum of both ITAC gear shares in a subarea is equal to the ITAC for that subarea in Table 1.
[2] Includes Bogoslof district.

Allocation of Prohibited Species Catch (PSC) Limits for Crab, Halibut, and Herring

PSC limits of red king crab and *C. bairdi* Tanner crab in Bycatch Limitation Zones (50 CFR 675.2) of the Bering Sea subarea, and for Pacific halibut throughout the BSAI area are specified under § 675.21(a). At this time, the 1994 PSC limits are:

—200,000 red king crabs for Zone 1 trawl fisheries;
—one million *C. bairdi* Tanner crabs for Zone 1 trawl fisheries;
—three million *C. bairdi* Tanner crabs for Zone 2 trawl fisheries;
—3,775 mt mortality of Pacific halibut for the BSAI trawl fisheries;
—900 mt mortality of Pacific halibut for BSAI non-trawl fisheries; and
—1,962 mt Pacific herring for BSAI trawl fisheries.

The PSC limit of Pacific herring caught while conducting any trawl operation for groundfish in the BSAI is 1 percent of the annual eastern Bering Sea herring biomass. The best estimate of 1994 herring biomass is 196,229 mt. This amount was derived using 1993 survey data and an aged structured biomass projection model developed by the Alaska Department of Fish and Game (ADF&G). Complete analysis of the 1993 spawning data was provided by the ADF&G at the Council's December 1993 meeting. Therefore, the herring PSC limit for 1994 is 1,962 mt.

Regulations under § 675.21(b) authorize the apportionment of each PSC limit into bycatch allowances for specified fishery categories. Regulations at § 675.21(b)(1)(iii) specify seven fishery categories (midwater pollock, Greenland turbot/arrowtooth flounder/sablefish, rock sole/other flatfish, yellowfin sole, rockfish, Pacific cod, and bottom pollock/Atka mackerel/"other species"). Regulations at § 675.21(b)(2) authorize the apportionment of the non-trawl halibut PSC limit among three fishery categories (Pacific cod hook-and-line fishery, groundfish pot gear fishery, and other non-trawl fisheries). The PSC allowances are listed in Table 5. In general, the fishery bycatch allowances listed in Table 5 reflect the recommendations made to the Council by its AP. These recommendations were based on 1993 bycatch amounts, anticipated 1994 harvest of groundfish by trawl gear and fixed gear, anticipated changes in fishery bycatch needs pending approval of a final rule implementing Amendment 24, and assumed halibut mortality rates in the different groundfish fisheries based on analyses of 1991–1993 observer data.

In 1993, NMFS exempted groundfish pot gear fisheries from halibut bycatch restrictions in Amendment 21 to the FMP (March 18, 1993, 58 FR 14524). During 1993, the halibut mortality associated with this groundfish catch was 2.5 mt, based on an assumed halibut mortality rate of 5 percent. The Council recommended continuing to exempt groundfish pot gear fisheries from halibut bycatch restrictions during the 1994 fisheries.

TABLE 5.—FINAL 1994 PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES

	Zone 1	Zone 2	BSAI-wide
Trawl fisheries:			
Red king crab, number of animals:			
Yellowfin sole	40,000	.....	.....
Rcksol/oth.flat[1]	110,000	.....	.....
Turb/arrow/sab[2]	0	.....	.....
Rockfish	0	.....	.....
Pacific cod	10,000	.....	.....
Plck/Atka/othr[3]	40,000	.....	.....
Total	200,000	.....	.....
C. bairdi Tanner crab, number of animals:			
Yellowfin sole	175,000	1,275,000	.....
Rcksol/oth.flat	475,000	260,000	.....
Turb/arrow/sabl	0	5,000	.....
Rockfish	0	10,000	.....
Pacific cod	175,000	200,000	.....
Plck/Atka/othr	175,000	1,250,000	.....
Total	1,000,000	3,000,000	.....
Pacific halibut, mortality (mt):			
Yellowfin sole	.....	.....	592
Rcksol/oth.flat	.....	.....	688
Turb/arrow/sabl	.....	.....	137
Rockfish	.....	.....	201
Pacific cod	.....	.....	1,200
Plck/Atka/othr	.....	.....	957
Total	.....	.....	3,775
Pacific herring, mt:			
Midwater pollock	.....	.....	1,419
Yellowfin sole	.....	.....	332

TABLE 5.—FINAL 1994 PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES—Continued

	Zone 1	Zone 2	BSAI-wide
Rcksol/oth.flat			0
Turb/arrow/sabl			0
Rockfish			8
Pacific cod			25
Plck/Atka/othr[4]			178
Total			1,962
Non-trawl fisheries:			
Pacific halibut, mortality (mt):			
Pacific Cod			725
Other non-trawl			175
Groundfish Pot Gear			(5)
Total			900

[1] Rock sole and other flatfish fishery category.
[2] Greenland turbot, arrowtooth flounder, and sablefish fishery category.
[3] Pollock, Atka mackerel, and "other species" fishery category.
[4] Pollock other than midwater pollock, Atka mackerel, and "other species" fishery category.
[5] Exempt.

Seasonal Apportionments of PSC Limits

Regulations at § 675.21(b)(3) authorize the Secretary, after consultation with the Council, to establish seasonal apportionments of prohibited species bycatch allowances among the fisheries to which bycatch has been apportioned. Under § 675.21(b)(3), the basis for any such apportionment must be based on the following types of information:

1. Seasonal distribution of prohibited species;
2. Seasonal distribution of target groundfish species relative to prohibited species distribution;
3. Expected prohibited species bycatch needs on a seasonal basis relevant to change in prohibited species biomass and expected catches of target groundfish species;
4. Expected variations in bycatch rates throughout the fishing year;
5. Expected changes in directed groundfish fishing seasons;
6. Expected start of fishing effort; or
7. Economic effects of establishing seasonal prohibited species apportionments on segments of the target groundfish industry.

At its December 1993 meeting, the Council recommended that the halibut bycatch allowances listed in Table 5 be seasonally apportioned as shown in Table 6, for yellowfin sole, rock sole/other flatfish, rockfish, and pollock/Atka mackerel/"other species" fishery categories. The recommended seasonal apportionments reflect recommendations made to the Council by its AP.

The AP recommended seasonal apportionments of the halibut bycatch allowances specified for the yellowfin sole, and rocksole/other flatfish fishery categories in anticipation of a 1994 rulemaking that would adjust the season opening date for the BSAI yellowfin sole and "other flatfish" fisheries from May 1 to January 20. At its December 1993 meeting, the Council recommended that this action be implemented early in 1994 under an emergency interim rule. The intent of the recommended season adjustment is to provide additional fishing opportunities in the BSAI early in the year and reduce the incentive for trawl vessel operators to move from the BSAI to the Gulf of Alaska after the rock sole roe fishery is closed, typically by the end of February.

The AP recommended that 20 percent of halibut bycatch be apportioned to the rockfish fishery during the periods January 20 through April 1, and July 1 to December 31, and that 60 percent of the halibut bycatch be apportioned during the period April 1 through July 1. The AP's recommendation was intended to provide a greater opportunity for participants in this fishery to more fully harvest TAC amounts of all rockfish species within these recommended halibut bycatch apportionments.

The AP's recommended seasonal apportionment of the halibut bycatch allowance for the pollock/Atka mackerel/"other species" fishery category is based on the seasonal allowances of the Bering Sea pollock ITAC recommended for the roe and non-roe seasons, and the assumption that most of the pollock taken during the roe season will be taken with pelagic trawl gear with reduced halibut bycatch rates.

The AP recommended a seasonal apportionment of the halibut bycatch allowance specified for the Pacific cod hook-and-line gear fishery based on:

(1) Anticipation that the proposed allocation of Pacific cod TAC among gear groups under Amendment 24 will be approved;

(2) Most of the hook-and-line gear effort for Pacific cod will occur during the first half of 1994; and

(3) The Council's desire to limit a hook-and-line fishery for Pacific cod during summer months when halibut bycatch rates are high.

NMFS approves the Council's recommendations for prohibited species bycatch allowances and seasonal apportionments. The seasonal apportionments of the halibut bycatch allowances are intended to increase the harvest of the groundfish OY by providing for directed groundfish fisheries when catches per unit of effort are high and corresponding halibut species bycatch rates are relatively low.

TABLE 6.—FINAL SEASONAL APPORTIONMENTS OF THE 1994 PACIFIC HALIBUT BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES. ALL ALLOWANCES AND APPORTIONMENTS OTHER THAN THOSE ON JANUARY 1 AND DECEMBER 31 BEGIN AND END AT 12:00 NOON, ALASKA LOCAL TIME

Fishery	Seasonal bycatch allowances (mt halibut)
Trawl Gear:	
Yellowfin sole	
Jan. 20–Aug. 02	230
Aug. 02–Dec. 31	362
Total	592
Rock sole/"other flatfish"	
Jan. 20–Mar. 29	428

TABLE 6.—FINAL SEASONAL APPORTIONMENTS OF THE 1994 PACIFIC HALIBUT BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES. ALL ALLOWANCES AND APPORTIONMENTS OTHER THAN THOSE ON JANUARY 1 AND DECEMBER 31 BEGIN AND END AT 12:00 NOON, ALASKA LOCAL TIME—Continued

Fishery	Seasonal bycatch allowances (mt halibut)
Mar. 29–Jun. 28	180
Jun. 28–Dec. 31	80
Total	688
Turbot/arrowtooth flounder/sablefish.	
Total	137
Rockfish	
Jan. 20–Apr. 01	40
Apr. 01–Jul. 01	120
Jul. 01–Dec. 31	41
Total	201
Pacific cod	
Jan. 20–Dec. 31	1,200
Total	1,200
Pollock/Atka mackerel/ "other species".	
Jan. 20–Apr. 15	430
Apr. 15–Dec. 31	527
Total	957
Total Trawl Halibut Mortality	3,775
Non-Trawl Gear:	
Pacific cod[2]	
Jan. 01–Apr. 30	685
Apr. 30–Aug. 31	40
Aug. 31–Dec. 31	[3]
Total	725
Other Non-trawl	175
Groundfish pot	[4]
Total Non-trawl Halibut Mortality	900

[2] Pending approval of Amendment 24, Pacific cod will be apportioned among three 4-month periods for 1994.
[3] Remainder.
[4] Exempt.

For purposes of monitoring the fishery halibut bycatch mortality allowances specified in Table 6, the Regional Director will use observed halibut bycatch rates and reported and observed groundfish catch to project when a fishery's halibut bycatch mortality allowance is reached. The Regional Director monitors the fishery bycatch mortality allowances using assumed mortality rates that are based on the best information available, including that contained in the final annual SAFE report.

Assumed halibut mortality rates for halibut bycatch in 1994 are listed in Table 7. These rates are similar to those used in 1993 and reflect mandatory careful release measures implemented during 1993 for the hook-and-line gear fisheries (58 FR 28799, May 17, 1993). The derivation of mortality rates assumed for the trawl fishery is discussed in the preamble to the final rule implementing halibut bycatch mortality limits (58 FR 14524, March 18, 1993). Assumed rates for the hook-and-line gear fishery are explained in the rule implementing careful release procedures. Analysis of 1992 and 1993 observer data suggest that mortality rates for the hook-and-line gear fishery generally continue to reflect 1993 assumed rates. The assumed mortality rates listed in Table 7 reflect recommendations by the Council after review of the International Pacific Halibut Commission and SSC recommendations. NMFS concurs with the Council's recommendations as the best available information for 1994.

TABLE 7.—ASSUMED PACIFIC HALIBUT MORTALITY RATES FOR THE BSAI FISHERIES DURING 1994

	Observed vessels (percent)	Unobserved vessels (percent)
Hook-and-Line Gear Fisheries:		
BSAI Pacific cod	12.5	15.0
BSAI Other Hook-and-line	12.5	15.0
Trawl Gear Fisheries (Assumed Mortality rates are unchanged from 1993):		
Midwater pollock	.....	80.0
Atka mackerel, rock sole, yellowfin sole, other flatfish	.....	70.0
Pacific cod, bottom pollock, rockfish	.....	60.0
Arrowtooth, Greenland turbot, sablefish, other species	.....	40.0
Pot Gear Fisheries	.....	5.0

Groundfish PSC Limits

No PSC limits for groundfish species are specified in this action. Section 675.20(a)(6) authorizes NMFS to specify PSC limits for groundfish species or species groups for which the TAC will be completely harvested by domestic fisheries. These PSC limits apply only to JVP or TALFF fisheries. At this time, no groundfish are allocated to either JVP or TALFF and specifications of groundfish PSC limits are unnecessary.

Closures to Directed Fishing

Fishing for groundfish in the Bering Sea and Aleutian Islands is authorized from January 1 through December 31, with the following exceptions (§ 675.23):

(1) Directed fishing for yellowfin sole, "other flatfish," arrowtooth flounder, and turbot is authorized from May 1, 1994 to December 31, 1994, subject to the other provisions in the BSAI regulations;

(2) Fishing for groundfish with trawl gear in the BSAI is prohibited until January 20, 1994;

(3) Directed fishing for pollock by the inshore and offshore components, defined at § 675.2, is authorized from January 1, 1994, through April 15, 1994, and August 15, 1994, through the end of the fishing year;

(4) Directed fishing for pollock under the Western Alaska Community Development Quota Program is authorized from January 1, 1994, through the end of the fishing year (§ 675.23(e)); and

(5) Directed fishing with trawl gear in Zone 1 for rockfish, Greenland turbot, arrowtooth flounder and sablefish is closed as there is no PSC to support this fishery (Table 5).

In addition to these regulatory closures, the Council and NMFS annually recommend closures to directed fishing for species needed as bycatch amounts in other directed fisheries. A principal consideration for the Council in developing its 1994 TAC recommendations was ensuring that the sum of the species TACs did not exceed the maximum OY of 2 million mt. After consideration of the amount of each species category TAC that is required for bycatch in other directed fisheries, the Council and NMFS recommended that TAC amounts specified for the following species be closed to directed fishing: (1) Pacific ocean perch in the Bering Sea; (2) other red rockfish in the Bering Sea; (3) shortraker/rougheye in the Aleutian Islands; (4) other rockfish in the Bering Sea and Aleutian Islands; (5) arrowtooth flounder in the BSAI; and (6) pollock in the Bogoslof district. Species or species groups identified in Table 8 will be necessary as incidental catch to support other anticipated groundfish fisheries and TAC amounts for these species will be used for bycatch purposes only. If NMFS determines the full TAC amount will not be used as bycatch, NMFS may open a directed fishery for that species.

TABLE 8.—CLOSURES TO DIRECTED FISHING UNDER 1994 INTERIM TACS [1]

Fishery (all gear)	Closed area
Pollock in Bogoslof District.	Statistical Area 518.
Pacific ocean perch ...	Bering Sea.
Shortraker/rougheye rockfish.	AI.
Other rockfish [2]	BSAI.
Other red rockfish [3] ...	Bering Sea.
Rockfish, Greenland turbot/arrowtooth/ sablefish.	Zone 1.
Arrowtooth	BSAI.

[1] These closures to directed fishing are in addition to closures and prohibitions found in regulations at 50 CFR Part 675.

[2] In the BSAI, "Other rockfish" includes *Sebastes* and *Sebastolobus* species except for Pacific ocean perchand the "other red rockfish" species.

[3] "Other red rockfish" includes shortraker, rougheye, sharpchin and northern.

Expiration of Interim 1994 Specifications

Regulations under § 675.20 (a)(7)(i) authorize one-fourth of each ITAC and apportionment thereof, one-fourth of each PSC allowance, and the first seasonal allowance of pollock to be in effect on January 1 on an interim basis and to remain in effect until superseded by final initial specifications for 1994. The final 1994 initial groundfish harvest specifications and prohibited species bycatch allowances implemented under this action supersede the interim 1994 specifications published in Tables 1 and 4 of the proposed specifications (58 FR 60584, November 17, 1993).

Response to Comments

Written comments on the proposed 1994 specifications and other management measures were requested through December 10, 1993. No written comments were received.

Classification

This action is authorized under 50 CFR 611.93(b), 675.20, and 676; and is covered by the regulatory flexibility analysis prepared for the implementing regulations.

A draft environmental assessment (EA) on the allowable harvest levels set forth in the final 1994 SAFE report was available for public review at the December 6–10, 1993, Council meeting. A final EA was prepared on the final 1994 TAC amounts recommended by the Council.

Consultation pursuant to section 7 of the Endangered Species Act was conducted for the 1994 BSAI initial specifications and concluded that the fishing activities conducted will not impact endangered or threatened marine mammal species in any manner not already evaluated in previous formal consultations.

List of Subjects

50 CFR Part 611

Fisheries, Foreign relations, Reporting and recordkeeping requirements.

50 CFR Parts 675 and 676

Fisheries, Reporting and recordkeeping requirements.

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

Dated: February 10, 1994.

Charles Karnella,

Acting Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. 94–3564 Filed 2–10–94; 4:53 pm]

BILLING CODE 3510–22–P

Proposed Rules

Federal Register
Vol. 59, No. 32
Wednesday, February 16, 1994

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

Agricultural Marketing Service

7 CFR Part 1011

[DA–94–07]

Milk in the Tennessee Valley Marketing Area; Proposed Temporary Reduction of Supply Plant Shipping Percentage

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Proposed temporary revision of rule.

SUMMARY: This document invites comments on a proposal to temporarily reduce the supply plant shipping requirement of the Tennessee Valley Federal milk order (Order 11) for the months of March through July 1994. The proposed action was requested by Armour Foods Ingredients Company (Armour), which operates a proprietary supply plant pooled under Order 11. Armour contends the action is necessary to prevent the uneconomical movement of milk and to ensure that producer milk associated with the market in the fall will continue to be pooled in the spring and summer months.

DATES: Comments are due no later than February 23, 1994.

ADDRESSES: Comments (two copies) should be filed with the USDA/AMS/Dairy Division, Order Formulation Branch, room 2968, South Building, P.O. Box 96456, Washington, DC 20090–6456.

FOR FURTHER INFORMATION CONTACT: Nicholas Memoli, Marketing Specialist, USDA/AMS/Dairy Division, Order Formulation Branch, room 2968, South Building, P.O. Box 96456, Washington, DC 20090–6456, (202) 690–1932.

SUPPLEMENTARY INFORMATION: The Regulatory Flexibility Act (5 U.S.C. 601–612) requires the Agency to examine the impact of a proposed rule on small entities. Pursuant to 5 U.S.C. 605(b), the Administrator of the Agricultural Marketing Service has certified that this proposed action would not have a significant economic impact on a substantial number of small entities. Such action would tend to ensure that dairy farmers would continue to have their milk priced under the order and thereby receive the benefits that accrue from such pricing.

The Department is issuing this proposed action in conformance with Executive Order 12866.

This proposed action has been reviewed under Executive Order 12778, Civil Justice Reform. This action is not intended to have a retroactive effect. If adopted, this proposed action will not preempt any state or local laws, regulations, or policies, unless they present an irreconcilable conflict with the rule.

The Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), provides that administrative proceedings must be exhausted before parties may file suit in court. Under section 8c(15)(A) of the Act, any handler subject to an order may file with the Secretary a petition stating that the order, any provisions of the order, or any obligation imposed in connection with the order is not in accordance with law and request a modification of the order or to be exempted from the order. A handler is afforded the opportunity for a hearing on the petition. After a hearing, the Secretary would rule on the petition. The Act provides that the district court of the United States in any district in which the handler is an inhabitant, or has its principal place of business, has jurisdiction in equity to review the Secretary's ruling on the petition, provided a bill in equity is filed not later than 20 days after the date of the entry of the ruling.

Notice is hereby given that, pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937 and the provisions of § 1011.7(b) of the order, temporary revision of certain provisions of the order regulating the handling of milk in the Tennessee Valley marketing area is being considered for the months of March 1, 1994, through July 31, 1994.

All persons who wish to send written data, views or arguments about the proposed revision should send two copies of them to the USDA/AMS/Dairy Division, Order Formulation Branch, room 2968, South Building, P.O. Box 96456, Washington, DC 20090–6456, by the 7th day after publication of this document in the **Federal Register**. The period for filing comments is limited to 7 days because a longer period would not provide the time needed to complete the required procedures before the requested revision is to be effective.

All written submissions made pursuant to this document will be made available for public inspection in the Dairy Division during regular business hours (7 CFR 1.27(b)).

Statement of Consideration

The proposed revision would reduce from 40 to 30 percent the supply plant shipping requirement for the period of March through July 1994. The Tennessee Valley order requires that a supply plant ship a minimum of 60 percent of the total quantity of milk physically received at the supply plant during the months of August through November, January, and February, and 40 percent in each of the other months. The order also provides authority for the Director of the Dairy Division to increase or decrease this supply plant shipping requirement by up to 10 percentage points if such a revision is necessary to obtain needed shipments of milk or to prevent uneconomic shipments.

Armour states that it would have to make uneconomical shipments of milk to meet the 40 percent supply plant shipping requirement to continue its pool status. Additionally, the proponent states that the 40 percent requirement could jeopardize the continued association of producers who have supplied the Order 11 market in the fall.

Armour anticipates that marketing conditions in 1994 will mirror those in 1993, when the shipping percentage was also reduced. It expects milk supplies to be adequate to meet the Class I needs of the market.

List of Subjects in 7 CFR Part 1011

Milk marketing orders.

The authority citation for 7 CFR part 1011 continues to read as follows:

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

Dated: February 8, 1993.

Richard M. McKee,

Acting Director, Dairy Division

[FR Doc. 94–3503 Filed 2–15–94, 8:45 am]

BILLING CODE 3410–02–P

DEPARTMENT OF THE TREASURY

Office of International Investment

31 CFR Part 800

Regulations Pertaining to Mergers, Acquisitions, and Takeovers by Foreign Persons

AGENCY: Department of the Treasury.

ACTION: proposed rule.

SUMMARY: These proposed regulations implement amendments to section 721 of title VII of the Defense Production Act of 1950 (the "DPA"), as added by section 5021 of the Omnibus Trade and Competitiveness Act of 1988, relating to mergers, acquisitions, and takeovers of U.S. persons by or with foreign persons, and as amended by section 837 of the National Defense Authorization Act for Fiscal Year 1993. That amendment requires that the President or his designee undertake an investigation under section 721 of certain acquisitions which could result in control of U.S. persons by foreign government controlled entities. It also expands the factors the President must consider in making a determination under section 721, modifies the existing congressional reporting requirement under section 721, and requires that any designee of the President under section 721 share with any other designee a copy of an assessment made in a particular case of the risk of diversion of a defense critical technology.

These proposed regulations implement only those provisions relating to mandatory investigations, and also make a few technical and conforming changes to the existing regulations. The statutory amendments pertaining to the factors for Presidential decisionmaking and report sharing, which do not directly affect the behavior of parties filing under section 721, were deemed sufficiently straightforward not to require any implementing regulations.

DATES: Comments must be submitted on or before March 18, 1994.

ADDRESSES: Comments should be sent to: Donald Crafts, Director, Office of International Investment, Department of the Treasury, room 5100, 15th Street and Pennsylvania Ave., NW., Washington, DC 20220.

FOR FURTHER INFORMATION CONTACT: Marilyn L. Muench, Deputy Assistant General Counsel for International Affairs, or Francine McNulty Barber, Attorney-Adviser, Department of the Treasury, 15th Street and Pennsylvania Ave., NW., Washington, DC 20220, (202) 622–1947. For further information regarding procedures for giving notice, contact Donald E. Crafts, Staff Chairman of the Committee and Acting Director, Office of International Investment, room 5100, Department of the Treasury, 15th Street and Pennsylvania Ave., NW., Washington, DC 20220, (202) 622–1860.

SUPPLEMENTARY INFORMATION: Section 136 of the Defense Production Act Amendments of 1992 (P.L. 102–558) amended section 709 of the DPA by requiring that any regulation issued under the DPA be published in the **Federal Register** and that opportunity for public comment be provided for not less than thirty days. Although the Treasury Department elected to provide a sixty day comment period for the regulations originally proposed to implement section 721, it has decided to provide thirty days for these proposed regulations, which, with a few exceptions, are of a relatively routine nature.

The preamble to these regulations, once published in final form, will be preserved with the preamble to the original regulations as an appendix in the Code of Federal Regulations.

Executive Order 12866: These regulations are not subject to the requirements of Executive Order 12866 because they relate to a foreign and military affairs function of the United States.

Paperwork Reduction Act: The collections of information provided for in this proposed rule have been submitted to the Office of Management and Budget for review in accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. 3504(h)). Comments on the collections of information should be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Act Project (1501–0121), Washington, DC 20503, with copies to the Office of International Investment at the address noted above.

The collection of information provided for in this proposed rule is in section 800.402. Thus far, the regulations have requested parties filing a notification under section 721 to provide 10 copies of the notification. However, the Committee on Foreign Investment in the United States has been expanded by Executive Order 12860 of September 3, 1993, to include three additional members: the Assistant to the President for National Security Affairs, the Assistant to the President for Economic Policy, and the Director of the Office of Science and Technology Policy. The regulations have accordingly been amended to request that three additional copies of the notifications be provided by parties making a filing under section 721, for a total of 13 copies. The regulations have also been amended to request more information pertaining to foreign government control to assist the Committee in implementing the amendment to section 721 pertaining to mandatory investigations of certain acquisitions involving such control.

The information collected pursuant to these regulations is required by the Committee to assist it in determining whether to investigate mergers, acquisitions, and takeovers of persons involved in interstate commerce in the United States by or with foreign persons for possible threats to the national security, as required by section 721 of the Defense Production Act. This information will be used to determine the extent and nature of foreign control, as well as the national security implications of the transactions at issue. The likely respondents are individuals and businesses.

Estimated Total Annual Reporting Burden: 6000 hours

Estimated Average Annual Burden per Respondent: This varies, depending on individual circumstances, with an average of 60 hours

Estimated Number of Respondents: 100

Estimated Annual Frequency of Responses: 1

Regulatory Flexibility Act: These regulations implement amendments to section 721 of the Defense Production Act of 1950 (50 U.S.C. App. 2170) ("DPA"). Section 709 of the DPA (50 U.S.C. App. 2159) provides that the regulations issued under it are not subject to the rulemaking requirements of the Administrative Procedure Act (5 U.S.C. 553). Notwithstanding this exemption, section 709 of the DPA was amended by section 136 of the Defense Production Act Amendments of 1992 (P.L. 102–558) to require any regulation issued under the DPA to be published in the **Federal Register** for at least thirty days to provide for public comment. This requirement subjects this proposed rule to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The impact of this proposed rule on small entities is expected to be insignificant. This proposed regulation imposes additional informational requirements on entities controlled by foreign governments. Most businesses affected by this rule will likely be large businesses, because these are the most likely to be controlled by a foreign government. Accordingly, it is certified that the proposed rule will not have a significant economic impact on a substantial number of small entities.

Discussion of the Proposed Rule

Section 837(a) of the Defense Authorization Act creates for the first time a mandatory investigation provision under Exon-Florio. There are three points worth noting about this provision. First, this provision is limited in application to certain types of acquisitions. Specifically, the acquirer in question must be a foreign government controlled entity, or an entity acting on behalf of a foreign government. Furthermore, the acquisition must be one which "could result in control of a person engaged in interstate commerce in the United States *that could affect the national security of the United States*" (emphasis added). Thus, even where the other specified criteria are met, this provision does not mandate an investigation for cases that could not "affect the national security of the United States."

Second, for purposes of determining whether the acquisition results in foreign government control, CFIUS is applying the same functional test for control as provided in section 800.204.

Third, in contrast to the criterion for Presidential action under Exon-Florio, *i.e.*, that the foreign party acquiring control might take action that "threatens to impair the national security," the criterion for undertaking an investigation of transactions involving government controlled entities is that there could be an effect on the national security.

The term "foreign government" has been broadly defined for purposes of these proposed regulations to include any government or body exercising governmental functions, and includes but is not limited to national as well as various regional and local levels of government. It is important to note that the definition is not limited to the particular levels of government that are specified in the proposed regulation, and that other governmental bodies, including supra-national entities such as the European Union (including its component parts), are covered by this regulation.

For purposes of the mandatory investigation provision, the proposed regulations define the term "engage in" as used in the phrase "seeks to engage in any merger, acquisition or takeover * * *" to mean "seeks to acquire control through." The purpose of this regulation is to clarify that the mandatory investigation provision would not be triggered in cases where a foreign government controlled entity is a passive participant in an acquisition by a foreign person. The Committee believes that this reading is supported by the legislative history, and particularly floor statements made by members of Congress who sponsored this particular amendment. *See, e.g.*, Cong. Rec., Sept. 18, 1992, pages S 14050 through 14053 (comments of Senators Exon, Sarbanes and Riegle); and Cong. Rec. Oct. 3, 1992, page H 10986 (comments of Representative Collins).

Drafting Information

The principal author of this document is the Office of the Assistant General Counsel (International Affairs). However, personnel from other offices of the Treasury Department and from other agencies that are members of the Committee participated extensively in its development.

List of Subjects in 31 CFR Part 800

Foreign investments in United States, Investigations, National defense, Reporting and recordkeeping requirements.

For the reasons set out in the preamble, Title 31, Chapter VIII, Part 800 of the Code of Federal Regulations is proposed to be amended as set forth below.

PART 800—[AMENDED]

1. The authority citation for part 800 is revised to read as follows:

Authority: Section 721 of Pub. L. 100–418, 102 Stat. 1107, made permanent law by section 8 of Pub. L. 102–99, 105 Stat. 487 (50 U.S.C. App. 2170) and amended by section 837 of the National Defense Authorization Act for Fiscal Year 1993, Pub. L. 102–484, 106 Stat. 2315, 2463; E.O. 12661, 54 FR 779, 3 CFR, 1988 Comp., p. 618.

2. Section 800.208 and §§ 800.209 through 800.221 are redesignated as § 800.209 and §§ 800.211 through 800.223, respectively.

3. Sections 800.208 and 800.210 are added to read as follows:

§ 800.208 Engage in.

The term *engage in*, as used in the phrase *seeks to engage in any merger, acquisition or takeover* in section 721(b), means *seeks to acquire control through*.

§ 800.210 Foreign government.

The term *foreign government* means any government or body exercising governmental functions, other than the government of the United States, a State of the United States, or a political subdivision of the United States or a State. The term includes but is not limited to national, state, provincial and municipal governments, including their respective departments, agencies, government-owned enterprises and other agencies and instrumentalities.

4. Newly designated § 800.222 is amended by revising the reference "§ 800.211" in Example 1 to read "§ 800.213".

5. Section 800.301 is amended by revising the third sentence in Example 1 of paragraph (b)(5) to read as follows:

§ 800.301 Transactions that are acquisitions under Section 721.

* * * * *

(b) * * *

(5) * * *

Example 1. * * * Under the Articles of Incorporation of JV Corp., Corp. A through its shareholding in JV Corp. may elect a majority of the Board of Directors of JV Corp. * * *

* * * * *

6. Section 800.302 is amended by revising the reference "§ 800.217" in paragraph (d) introductory text to read "§ 800.219".

7. Section 800.401 is amended by revising "ten copies" in paragraph (a) to read "thirteen copies".

8. Section 800.402 is amended by revising paragraph (c)(3)(v)(A), by removing the word "and" at the end of paragraph (c)(5)(i), by removing the period at the end of paragraph (c)(5)(ii)(E), and replacing it with a semicolon, be adding paragraphs (c)(5)(iii) and (iv), and by adding paragraph (i) to read as follows:

§ 800.402 Contents of voluntary notice.

* * * * *

(c) * * *

(3) * * *

(v) * * *

(A) It is a supplier, for example, a prime contractor, or a first tier subcontractor, or, if known, a subcontractor at any tier, to the Department of Defense or any component of the Department of Defense, or a seller to any such prime contractor or subcontractor, and, to the knowledge of the parties submitting notice, to what extent the U.S. person is a sole-source supplier of the Department of Defense's needs for a particular product or service;

* * * * *

(5) * * *

(iii) Whether the foreign person is acting on behalf of a foreign government, either as an agent or a representative, or in some similar capacity; and

(iv) Whether a foreign government or an entity controlled by a foreign government—

(A) Has the power or right to determine, direct, take, reach or cause decisions of the acquirer with respect to

any of the matters listed in section 800.204, and, if so, the source of that power or right (*e.g.*, shareholders agreement, contract, statute, regulation) and the mechanics of its operation;

(B) Owns or controls voting or convertible securities of the acquiring foreign person or any affiliate of the acquiring foreign person, and if so, the nature and percentage amount of any such securities;

(C) Has the right or power to appoint any of the principal officers or the members of the board of directors of the acquiring foreign person or any affiliate of the acquiring foreign person; or

(D) Holds any contingent interest (*e.g.*, such as might arise from a lending transaction) in the foreign acquiring party and, if so, the rights that are covered by this contingent interest, and the manner in which they would be enforced.

* * * * *

(i) Persons filing a voluntary notice shall include a copy of the most recent asset or stock purchase agreement or other document establishing the terms of the acquisition.

9. Section 800.504 is amended by revising the references "subparagraphs (d) (1) and (2)" in the second sentence of paragraph (b) to read "subparagraphs (e) (1) and)2)".

10. Section 800.601 is amended by revising the references "Section 721(c)" and "Section 721(d)" in paragraphs (b) and (d) to read "Section 721(d)" and "Section 721(e)", respectively, and by revising the reference "Section 721 (c) and (d)" in paragraph (c) to read "Section 721 (d) and (e)".

11. Section 800.702 is amended by revising the reference "Section 721(h)" in paragraph (a) to read "Section 721(c)".

12. The Appendix to Part 800 is amended in III. *Section-by-Section Discussion of Changes*, by revising the paragraph headings "*Section 800.211*", "*Section 800.214*", "*Section 800.217*", and "*Section 800.220*" to read "*Section 800.213*", "*Section 800.216*", "*Section 800.219*", and "*Section 800.222*", respectively.

Dated: January 11, 1994.

Jeffrey R. Shafer,

Assistant Secretary (International Affairs).

[FR Doc. 94–3540 Filed 2–10–94; 8:45 am]

BILLING CODE 4810–25–M

DEPARTMENT OF TRANSPORTATION

Coast Guard

46 CFR Parts 25 and 160

[CGD 78–174]

RIN 2115–AA29

Hybrid PFD's; Establishment of Approval Requirements; Correction

AGENCY: Coast Guard, DOT.

ACTION: Supplemental notice of proposed rulemaking; correction.

SUMMARY: The Coast Guard is correcting errors in the preamble and proposed regulatory text which appeared in the **Federal Register** on January 18, 1994 (59 FR 2575).

DATES: Comments must be received on or before April 18, 1994.

FOR FURTHER INFORMATION CONTACT: LTjg Roger A. Smith, Office of Marine Safety, Security, and Environmental Protection, Attn: G–MVI–3/14, 2100 Second Street, SW., Washington, DC 20593–0001, (202) 267–1444.

SUPPLEMENTARY INFORMATION: The Coast Guard published an interim final rule promulgating hybrid inflatable PFD requirements in the **Federal Register** on August 22, 1985 (50 FR 33923). The SNPRM published in the **Federal Register** on January 18, 1994 (59 FR 2575) proposes changes to the requirements for approving hybrid PFD's and for the carriage of hybrid PFD's on commercial vessels.

Correction of Publication

The publication on January 18, 1994, of the Supplemental Notice of Proposed Rulemaking (CGD 78–174), which was the subject of FR Doc. 94–1135, is corrected as follows:

1. On page 2578, first column, under *section 160.077–31 Approved Use*, paragraph (j)(4) should be designated paragraph (4) and the word "added" should read "amended".

2. On page 2578, first column, under *section 160.077–31 Size Ranges*, paragraph designation (1) should be a lower case (l).

§ 160.077–23 [Corrected]

3. On page 2585, first column, in § 160.077–23(b)(1)(i), "§ 160.077–3(d)(5)" should read "§ 160.077–23(d)(5)".

§ 160.077–23 [Corrected]

4. On page 2586, first column, in § 160.077–27, paragraph (e)(2), under the heading *Hybrid Inflatable Type I, II, or III*, in the fourth sentence "will not" should read "may only" so it reads "The buoyancy provided by this PFD when not inflated may only float approximately 90 percent of the boating public."

Dated: February 8, 1994.

A.E. Henn,

Rear Admiral, U.S. Coast Guard, Chief, Office of Marine Safety, Security and Environmental Protection.

[FR Doc. 94–3517 Filed 2–15–94; 8:45 am]

BILLING CODE 4910–14–M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 93–188; RM–8278]

Radio Broadcasting Services; Westbrook, ME

AGENCY: Federal Communications Commission.

ACTION: Proposed rule; dismissal.

SUMMARY: This document dismisses a Notice of Proposed Rule Making issued in response to Buckley Broadcasting Corporation of Maine requesting the substitution of Channel 265B1 for Channel 265A at Westbrook, Maine, and modification of the license for Station WYNZ to specify the higher class channel. See 58 FR 38547, July 19, 1993 Saga Communications of New England, Inc., the current licensee of Station WYNZ, has filed an application seeking to take advantage of the Commission's new rules permitting an upgrade in facilities by the application process rather than the rule making process (BPH–930818IC). See FM Channel and Class Modification by Application, 58 FR 38534, July 19, 1993. With this action, this proceeding is terminated.

FOR FURTHER INFORMATION CONTACT: Kathleen Scheuerle, Mass Media Bureau, (202) 634–6530.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order, MM Docket No. 93–188, adopted January 27, 1994, and released February 9, 1994. The full text of this Commission decision is available for inspection and copying during normal business hours in the Commission's Reference Center (room 239), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Services, Inc., 2100 M Street NW., suite 140, Washington, DC 20037, (202) 857–3800.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

John A. Karousos,

Acting Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 94–3531 Filed 2–15–94; 8:45 am]

BILLING CODE 6712–01–M

47 CFR Part 73

[MM Docket No. 93–258; RM–8253]

Radio Broadcasting Services; Hawaiian Ocean View Estates, and Ocean View, HI

AGENCY: Federal Communications Commission.

ACTION: Proposed rule; denial of.

SUMMARY: This document denies the allotment of Channel 273A to Ocean View, Hawaii, and dismisses the proposal to allot Channel 273A to Hawaiian Ocean View Estates, Hawaii, as requested by Betty Adalsteinsson and James Stonecipher, respectively. See 58 FR 52733, October 12, 1993. With this action, this proceeding is terminated.

FOR FURTHER INFORMATION CONTACT: Nancy J. Walls, Mass Media Bureau, (202) 634–6530.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Report and Order, MM Docket No. 93–258, adopted January 24, 1994, and released February 9, 1994. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Center (room 239), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, Inc., (202) 857–3800, 1919 M Street NW., room 246, or 2100 M Street NW., suite 140, Washington, DC 20037.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

John A. Karousos,

Acting Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 94–3532 Filed 2–15–94; 8:45 am]

BILLING CODE 6712–01–M

47 CFR Part 73

[MM Docket No. 94–8, RM–8412]

Radio Broadcasting Services; Ola, AR

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: This document requests comments on a petition for rule making filed on behalf of Yell County Broadcasting, requesting the allotment of FM Channel 267A to Ola,Arkansas, as that community's first local aural transmission service. Coordinates used for his proposal are 35–01–02 and 93–13–34.

DATES: Comments must be filed on or before April 4, 1994, and reply comments on or before April 19, 1994.

ADDRESSES: Secretary, Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner's counsel, as follows: Dan J. Alpert, Esq., Law Offices of Dan J. Alpert, 1250 Connecticut Avenue NW., #700, Washington, DC 20036.

FOR FURTHER INFORMATION CONTACT: Nancy Joyner, Mass Media Bureau, (202) 634–6530.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 94–8, adopted January 27, 1994, and released February 9, 1994. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC's Reference Center (room 239), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcription Service, Inc., (202) 857–3800, 2100 M Street NW., suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, See 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

John A. Karousos,

Acting Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 94–3533 Filed 2–15–94; 8:45 am]

BILLING CODE 6712–01–M

47 CFR Part 73

[MM Docket No. 94–9, RM–8423]

Radio Broadcasting Services; Tunica, MS

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a petition filed by Tunica Broadcasting seeking the allotment of Channel 241C3 to Tunica, Mississippi, as the community's first local FM service. Channel 241C3 can be allotted to Tunica in compliance with the Commission's minimum distance separation requirements with a site restriction of 6.8 kilometers (4.2 miles) southwest to avoid short-spacing conflicts with Station WLZA–FM, Channel 241C2, Eupora, Mississippi, and with a rule making proposal (RM–8336) to allot Channel 240C3 at Harrisburg, Arkansas. The coordinates for Channel 241C3 are North Latitude 34–38–56 and West Longitude 90–26–39.

DATES: Comments must be filed on or before April 4, 1994, and reply comments on or before April 19, 1994.

ADDRESSES: Federal Communications Commission, Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve the petitioner, or its counsel or consultant, as follows: Barbara L. Waite, Esq., Venable, Baetjer, Howard & Civiletti, suite 1000, 1201 New York Avenue NW., Washington, DC 20005 (Counsel for petitioner).

FOR FURTHER INFORMATION CONTACT: Pamela Blumenthal, Mass Media Bureau, (202) 634–6530.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MM Docket No. 94–9, adopted January 27, 1994, and released February 9, 1994. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC's Reference Center (room 239), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor, ITS, Inc., (202) 857–3800, 2100 M Street NW., suite 140, Washington, DC 20037.

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding.

Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex*

parte contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Federal Communications Commission.

John A. Karousos,

Acting Chief, Allocations Branch, Policy and Rules Division, Mass Media Bureau.

[FR Doc. 94–3534 Filed 2–15–94; 8:45 am]

BILLING CODE 6712-01-M

Notices

Federal Register
Vol. 59, No. 32
Wednesday, February 16, 1994

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 021094A]

Gulf of Mexico Fishery Management Council; Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meetings.

SUMMARY: The Gulf of Mexico Fishery Management Council's Standing and Special Reef Fish and the Standing and Special Shrimp Scientific and Statistical Committees will hold public meetings on March 4, 1994, at the Radisson Inn New Orleans Airport, 2150 Veterans Memorial Boulevard, Kenner, Louisiana; telephone: (504) 467–3111. The Standing and Special Reef Fish Scientific and Statistical Committee meeting will be held from 10 a.m to 12:30 p.m.

The purpose of the meeting is to review proposed Draft Amendment 9 to the Fishery Management Plan for the Reef Fish Fishery of the Gulf of Mexico. Draft Amendment 9 includes management measures to collect historical landings data from fishermen, to extend the reef fish permit moratorium and the red snapper endorsement system, and to provide partial red snapper endorsements in 1995 to historical captains if the red snapper endorsement system is extended. The historical landings data will be used to establish the eligibility of fishermen if a system to limit access to the red snapper fishery is implemented based on individual transferable quotas (ITQs) or license limitations. Individuals would be notified of their potential allocation.

The Standing and Special Shrimp Scientific and Statistical Committee meeting will be held from 1:30 p.m. to 3 p.m.

The purpose of that meeting is to review Amendment 7 to the Fishery Management Plan for the Shrimp Fishery of the Gulf of Mexico which proposes to:

(1) Define overfishing for white shrimp;

(2) Provide for a framework adjustment for the overfishing definitions for brown, white, and pink shrimp;

(3) Revise the overfishing definition for royal red shrimp; and

(4) Eliminate the total allowable level of foreign fishing to allow the domestic fleet to harvest the entire optimum yield.

The Standing Scientific and Statistical Committee meeting will be held from 3 p.m. to 3:30 p.m. for consideration of operation procedures.

FOR FURTHER INFORMATION CONTACT: (Shrimp) Terrance R. Leary, Fishery Biologist, or (Reef Fish) Steven M. Atran, Population Dynamics Statistician, Gulf of Mexico Fishery Management Council, 5401 West Kennedy Boulevard, suite 331, Tampa, FL; telephone: (813) 228–2815.

SUPPLEMENTARY INFORMATION: The meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to the above address by February 25, 1994.

Dated: February 10, 1994.

David S. Crestin,

Acting Director, Office of Fisheries Conservation and Management, National Marine Fisheries Service.

[FR Doc. 94–3561 Filed 2–15–94; 8:45 am]

BILLING CODE 3510–22–P

[I.D. 021094B]

Gulf of Mexico Fishery Management Council; Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The Gulf of Mexico Fishery Management Council's Reef Fish Advisory Panel will hold a meeting on March 3, 1994, at the Radisson Inn New Orleans Airport, 2150 Veterans Memorial Boulevard, Kenner, Louisiana; telephone: (504) 467–3111. The meeting will be held from 12 p.m to 4 p.m.

The purpose of the meeting is to review proposed Draft Amendment 9 to the Fishery Management Plan for the Reef Fish Fishery of the Gulf of Mexico. Draft Amendment 9 includes management measures to collect historical landings data from fishermen to extend the reef fish permit moratorium and red snapper endorsement system, and to provide partial red snapper endorsements in 1995 to historical captains if the red snapper endorsement system is extended. The historical landings data will be used to establish the eligibility of fishermen if a system to limit access to the red snapper fishery is implemented based on individual transferable quotas (ITQs) or license limitations. Individuals would be notified of their potential allocation.

FOR FURTHER INFORMATION CONTACT: Steven M. Atran, Population Dynamics Statistician, Gulf of Mexico Fishery Management Council, 5401 West Kennedy Boulevard, suite 331, Tampa, FL; telephone: (813) 228–2815.

SUPPLEMENTARY INFORMATION: The meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to the above address by February 25, 1994.

Dated: February 10, 1994.

David S. Crestin,

Acting Director, Office of Fisheries Conservation and Management, National Marine Fisheries Service.

[FR Doc. 94–3562 Filed 2–15–94; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF DEFENSE

Department of the Army

Final Environmental Impact Statement To Assess the Impacts of Stationing Mechanized or Armored Forces at Fort Lewis, WA

AGENCY: Department of Defense, United States Army.

ACTION: Notice of availability.

SUMMARY: As part of the worldwide reorganization of its force structure, the Army proposes to station heavy (armored or mechanized) combat units at Fort Lewis, Washington. This Final

Environmental Impact Statement (FEIS) analyzes two stationing alternatives (one or two brigades) and the No Action Alternative. The One-Brigade Alternative results in approximately 4,000 additional troops and 500 tracked vehicles. Under the Two-Brigade Alternative, approximately 10,400 additional troops and 1,100 tracked vehicles would be assigned to Fort Lewis and its sub-installation, Yakima Training Center (YTC). New construction would be required to support either stationing alternative.

The FEIS will be available for public review during a 30-day post-filing waiting period prior to the Army making the final decision on the stationing of mechanized and armored combat forces at Fort Lewis.

ADDRESSES: Copies of the FEIS will automatically be mailed to individuals who attended the scoping and public hearings meetings, commented during the public comment period and who requested copies. Copies will be sent to city, county, and federal officials, and civic organizations, and public libraries. Individuals not currently on the mailing list may obtain a copy of the FEIS by contacting Mr. Randall W. Hanna, Chief, Environmental and Natural Resources Division, Headquarters, I Corps and Fort Lewis, ATTN: AFZH–DEQ, Fort Lewis, Washington 98433–5000.

Dated: February 8, 1994.

Lewis D. Walker,

Deputy Assistant Secretary of the Army (Environmental, Safety, and Occupational Health), OASA (IL&E).

[FR Doc. 94–3566 Filed 2–15–94; 8:45 am]

BILLING CODE 3710–08–M

DEPARTMENT OF EDUCATION

AGENCY: National Assessment Governing Board; Education.

ACTION: Notice of closed and partially closed meetings.

SUMMARY: This notice sets forth the schedule and proposed agenda of forthcoming meetings of the National Assessment Governing Board and its committees. This notice also describes the functions of the Board. Notice of these meetings is required under Section 10(a)(2) of the Federal Advisory Committee Act. This document is intended to notify the general public of their opportunity to attend the open portions of the meetings.

DATES: March 3–5, 1994.

TIME: March 3, 1994—Subject Area Committee #2, 4 p.m.–6 p.m. (open); Achievement Levels Committee, 4 p.m.–6 p.m. (open). March 4, 1994—Executive Committee, 7 a.m.–8:45 a.m. (open); Full Board, 9 a.m.–10 a.m. (open); Reporting and Dissemination Committee, 10 a.m.–12 noon (open); Subject Area Committee #1, 10 a.m.–12 noon (open); Design and Analysis Committee, 10 a.m.–12 noon (open); Full Board, 12 noon–1:15 p.m. (closed); 1:15 p.m.–5 p.m. (open); Nominations Committee 4 p.m.–5 p.m. (closed). March 5, 1994—Full Board, 9 a. m.—11:30 a.m. (open); 11:30 a.m.–approximately 12 noon, (closed).

LOCATION: Madison Hotel, 15th and M Streets, NW., Washington, DC

FOR FURTHER INFORMATION CONTACT: Mary Ann Wilmer, Operations Officer, National Assessment Governing Board , suite 825, 800 North Capitol Street, NW., Washington, DC 20002–4233, Telephone (202) 357–6938.

SUPPLEMENTARY INFORMATION: The National Assessment Governing Board is established under Section 406(i) of the General Education Provisions Act (GEPA) as amended by Section 3403 of the National Assessment of Educational Progress Improvement Act (NAEP Improvement Act), Title III–C of the Augustus F. Hawkins—Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988 (Pub. L. 100–297), (20 USC 1221e–1).

The Board is established to formulate policy guidelines for the National Assessment of Educational Progress. The Board is responsible for selecting subject areas to be assessed, developing assessment objectives, identifying appropriate achievement goals for each grade and subject tested, and establishing standards and procedures for interstate and national comparisons.

On March 3, two committees will be in open session from 4 p.m. until 6 p.m. The Subject Areas Committee #2 will meet to review and make final approval of the 1996 NAEP Arts Consensus Project for submission to the full Board. The Achievement Levels Committee will meet to hear an update of the achievement levels setting process, and to review the final draft of the achievement levels policy.

On March 4, the Executive Committee will meet in open session from 7 a.m. until 8:45 a.m. Agenda items for this meeting include an update on NAEP/NAGB as related to the reauthorization of the Elementary and Secondary Education Act, and a report on the planning for the joint-conference sponsored by NAGB and NCES on standard setting.

The full Board will convene at 9 a.m. The morning session of the full Board meeting, 9 a.m. until 10 a.m., will include approval of the meeting agenda, the Executive Director's report, and an update on NAEP. From 10 a.m. until 12 noon, there will be open meetings of the Reporting and Dissemination Committee, the Design and Analysis Committee, and the Subject Area Committee #1. The full Board will reconvene in partially closed session from 12 noon to 1:15 p.m. During this partially closed session the NAEP 1992 Trends in Academic Progress will be presented. The discussion will include references to specific items from the assessment, the disclosure of which might significantly frustrate implementation of the NAEP. This session must be closed to the public because reference may be made to data which may be misinterpreted, incorrect, or incomplete. Premature disclosure of this data might significantly frustrate implementation of a proposed agency action. Such matters are protected by exemption 9(B) of section 552b(c) of Title 5 U.S.C.

The full Board meeting will open to the public at 1:15 p.m. and continue to 5 p.m. Agenda items include a final report form Subject Area Committee #1 on the 1996 NAEP Arts Education Assessment Framework and Specifications; a presentation on NAEP Dissemination Strategy, GED Spanish Testing Equating Project, and an Ethics Briefing for new Board members.

Also, on March 4, the Nominations Committee will meet in closed session from 4 p.m.—5 p.m. The Committee will review and discuss the qualifications of nominees for vacancies in the membership of the National Assessment Governing Board and formulate recommendations for the Board. The review and subsequent discussions of this information relate solely to the internal personnel rules and practices of an agency and will disclose information of a personal nature where disclosure would constitute a clearly unwarranted invasion of personal privacy if conducted in open session. Such matters are protected by exemptions (2) and (6) of Section 552b(c) of Title 5 U.S.C.

On March 5, from 9 a.m. until 11:30 a.m., the full Board will reconvene. The agenda for this session includes a presentation on the analysis of NAEP results by socio-economic and "opportunity to learn" factors, and to hear reports from the subcommittees. Beginning at 11:30 a.m. and concluding at approximately 12 noon, the meeting will be closed to the public to permit the Board to hear the Nominations Committee recommendations of candidates for Board membership. The review and subsequent discussions of

this information relate solely to the internal personnel rules and practices of an agency and will disclose information of a personal nature where disclosure would constitute a clearly unwarranted invasion of personal privacy if conducted in open session. Such matters are protected by exemptions (2) and (6) of Section 552b(c) of Title 5 U.S.C.

This meeting of the National Assessment Governing Board will be adjourned at approximately 12 noon.

Records are kept of all Board proceedings and are available for public inspection at the U.S. Department of Education, national Assessment Governing Board, suite 825, 800 North Capitol Street, NW., Washington, DC, from 8:30 a.m. to 5 p.m. A summary of the activities at each closed portion of these meetings, including related matters that are informative to the public, consistent with the policy of Title 5 U.S.C. 552b(c), will be available to the public within fourteen days of the closed and partially closed meetings.

Roy Truby,

Executive Director, National Assessment Governing Board.

[FR Doc. 94–3563 Filed 2–15–94; 8:45 am]

BILLING CODE 4000–01–M

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER94–304–000]

Central Hudson Gas & Electric Corp.; Filing

February 10, 1994.

Take notice that on January 13, 1994, Central Hudson Gas & Electric Corporation (CH&E) tendered for filing an amendment to FERC Contract No. 26 dated August 26, 1993 between CHG&E and New York State Electric and Gas Corporation (NYSEG). The amended contract provides for an increase in the facilities charge associated with investment at the Smithfield Substation due to the replacement of a motor-operated manually controlled air break switch with a supervisory controlled circuit breaker.

The facilities charge increases from $57.00 per month to $2,410.00 per month and is retroactive to August 16, 1991 the date on which the circuit breaker was placed in service. The update to the facilities charge was delayed until final closure of the Work Order for the system modifications.

CHG&E requests waiver of the FERC advance notice requirement set forth in 18 CFR 35.11.

All other provisions of FERC Contract No. 26 shall remain in effect. CHG&E states that copies of the subject filing were served upon NYSEG.

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, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 18 CFR 385.214). All such motions or protests should be filed on or before February 18, 1994. 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.

Lois D. Cashell,

Secretary.

[FR Doc. 94–3556 Filed 2–15–94; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. RS92–10–008]

Southern Natural Gas Co.; Shortening Comment Period

February 9, 1994.

On February 8, 1994, Southern Natural Gas Company filed a supplemental compliance filing in the above-docketed proceeding. By this notice, the period for filing comments on the filing is shortened to and including February 16, 1994.

Lois D. Cashell,

Secretary.

[FR Doc. 94–3555 Filed 2–15–94; 8:45 am]

BILLING CODE 6717–01–M

FEDERAL COMMUNICATIONS COMMISSION

[CC Docket No. 94–11, FCC 94–29]

Cellular Application of Telephone and Data Systems, Inc.; Hearing

AGENCY: Federal Communications Commission.

ACTION: Notice of hearing designation order.

SUMMARY: Cellular application of Telephone and Data Systems, Inc. (TDS) is designated for hearing. The Commission has determined that a substantial and material question of fact exists as to whether a subsidiary of TDS has misrepresented facts to or lacked candor before the Commission. The hearing will examine the subsidiary's conduct before the Commission and determine whether TDS holds the requite character qualifications necessary to hold the cellular license for the Wisconsin 8 (Vernon) Rural Service Area.

ADDRESSES: Federal Communications Commission, Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: Joseph Weber, Mobile Services Division, Common Carrier Bureau (202) 632–6450.

SUPPLEMENTARY INFORMATION: This is a summary of Memorandum Opinion and Order and Hearing Designation Order in CC Docket 94–11, adopted February 1, 1994, and released February 1, 1994.

The full text of Commission decisions are available for inspection and copying during normal business hours in the FCC Dockets Branch (room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor, International Transcription Service, Inc., 2100 M Street, NW., suite 140, Washington, DC 20037, (202) 857–3800.

Summary of Memorandum Opinion and Order and Hearing Designation Order

The Commission has designated for hearing the cellular application of Telephone and Data Systems, Inc. (TDS) for the Wisconsin 8 (Vernon) Rural Service Area. United States Cellular Corporation (USCC), a TDS subsidiary, was a party of La Star Cellular Telephone Company (La Star), an applicant to provide cellular service in St. Tammany Parish in the New Orleans, Louisiana Metropolitan Statistical Area. La Star's application was designated for hearing with the mutually exclusive application of New Orleans CGSA, Inc. (NOCGSA). La Star was found to be ineligible and the application of NOCGSA was granted. The Commission affirmed this conclusion. See La Star Cellular Telephone Company, 6 FCC Rcd 6860 (I.D. 1991), *aff'd*, 7 FCC Rcd 3762 (1992), *appeal pending sub nom., Telephone and Data Systems, Inc.* v. *FCC*, Case No. 92–1273 (D.C. Cir.).

NOCGSA argued that USCC misrepresented facts and lacked candor before the Commission. Neither the presiding administrative law judge, nor the Commission reached the merits of those arguments. The Commission did state, however, that the issues could be revisited in future proceedings. See La Star Cellular Telephone Company, 7 FCC Rcd at 3767, n.3.

The Commission has revisited the character arguments in the instant Order and has concluded that a substantial and material question of fact exists as to whether USCC was fully truthful and candid in its dealings with the Commission. For instance, one USCC principal swore in written testimony that a management committee controlled the actions of La Star. Oral testimony elicited from that same witness, however, showed that the management committee served little purpose and did not direct the actions of La Star. Because the Commission believes that a substantial and material question of fact exists about USCC's character, it has designated issues for hearing to determine whether USCC principals misrepresented facts or lacked candor in the *La Star* proceeding. The hearing will also determine based upon the evidence of whether USCC misrepresented facts or lacked candor, whether TDS holds the necessary character qualifications to hold the license for the Wisconsin 8 Rural Service Area.

Pursuant to section 309(e) of the Communications Act of 1934 as amended, TDS's application has been designated for hearing upon the following issues listed below:

(1) To determine whether United States Cellular Corporation misrepresented facts to the Commission, lacked candor in its dealings with the Commission, or attempted to mislead the Commission, and, in this regard, whether United States Cellular Corporation has violated § 1.17 of the Commission's Rules, 47 CFR 1.17.

(2) To determine, based on the evidence adduced in issue 1, above, whether Telephone and Data Systems, Inc. possesses the requisite character qualifications to hold the cellular Block B authorization for the Wisconsin 8 (Vernon) Rural Service Area and, accordingly, whether grant of its application would serve the public interest, convenience, and necessity.

The Commission has further noted that if USCC has lacked candor or misrepresented facts in any pleadings filed within a year of the release of the Order, the presiding administrative law judge may find that USCC or TDS has violated § 1.17 of the Commission's rules and impose a forfeiture up to the statutory maximum.

Federal Communications Commission.

William F. Canton,

Acting Secretary.

[FR Doc. 94–3530 Filed 2–15–94; 8:45 am]

BILLING CODE 6712–01–M

FEDERAL MARITIME COMMISSION

Agreement(s) Filed

The Federal Maritime Commission hereby gives notice of the filing of the following agreement(s) pursuant to section 5 of the Shipping Act of 1984.

Interested parties may inspect and obtain a copy of each agreement at the Washington, DC Office of the Federal Maritime Commission, 800 North Capitol Street, NW., 9th Floor. Interested parties may submit comments on each agreement to the Secretary, Federal Maritime Commission, Washington, DC 20573, within 10 days after the date of the **Federal Register** in which this notice appears. The requirements for comments are found in § 572.603 of title 46 of the Code of Federal Regulations. Interested persons should consult this section before communicating with the Commission regarding a pending agreement.

Agreement No.: 203–011447.

Title: U.S./Mediterranean Policing Agreement.

Parties:

A.P. Moller-Maersk Line
Croatia Line
d/Amico Societa di Navigazione per Azioni
Evergreen Marine Corporation (Taiwan) Ltd.
Farrell Lines, Inc.
Italia di Navigazione, S.p.A.
Lykes Lines
Med-Pacific Express
Mediterranean Shipping C.
Nedlloyd Lines
Nordana Line AS
P&O Containers Limited
Sea-Land Service, Inc.
United Arab Shipping Company (S.A.G.)
Zim Israel Navigation Company, Ltd.

Synopsis: The proposed Agreement would authorize the parties to discuss, agree and exchange information on matters relating to self-policing and/or neutral body policing of the parties' obligations in the trades from ports in Spain, Italy, North African Spanish ports, Portugal, Mediterranean coast of France, Spanish Mediterranean ports and the Canary Islands, but excluding ports on the Azores Islands, and all ports and points in Continental Europe via such ports, and all U.S. ports and points including Puerto Rico.

Agreement No.: 224–010901–003.

Title: Port of Galveston/Del Monte Fresh Fruit Company.

Parties:

Port of Galveston
Del Monte Fresh Fruit Company ("Del Monte")

Synopsis: The proposed amendment provides for Del Monte to pay 50 percent of the published tariff wharfage rate on containerized bagged resin for the term of the Agreement.

Dated: February 10, 1994.

By Order of the Federal Maritime Commission.

Joseph C. Polking,

Secretary.

[FR Doc. 94–3546 Filed 2–15–94; 8:45 am]

BILLING CODE 6730–01–M

Ocean Freight Forwarder License Applicants

Notice is hereby given that the following applicants have filed with the Federal Maritime Commission applications for licenses as ocean freight forwarders pursuant to section 19 of the Shipping Act of 1984 (46 U.S.C. app. 1718 and 46 CFR Part 510).

Persons knowing of any reason why any of the following applicants should not receive a license are requested to contact the Office of Freight Forwarders, Federal Maritime Commission, Washington, DC 20573.

G T International, Inc., 3257 S. Del Mar Ave., Rosemead, CA 33054, Officer: Geoffrey Ren, President, Demetrio Pina, Vice President, Vilma Pina, Secretary, Raul Cabrera, Treasurer

Newport Cargo Consolidated, Inc., 12533 Crenshaw Blvd., Hawthorne, CA 90250, Officers: Hae Soon Yoon, President/Stockholder, Hwa Kyung Yoon, Vice President/Stockholder

Green Delta Corp., 2520 NE Broadway Street, #204, Minneapolis, MN 55413, Officer: Keumog L. Ahn, Corporate Executive Officer

Josephine D. Mina-Saito, 29360 North Begonias Lane, Canyon Country, CA 91351, Sole Proprietor

"K" Line Air Service (U.S.A.) Inc., 144–35 157th Street, Jamaica, NY 11434, Officers: Tetsuo Shoji, President, Koichi Inouye, Executive Vice President, Yuichi Aoyagi, Secretary/Treasurer

Express International Forwarders, Inc., 41501 N.W. 97th Ave., Ste. 3, Miami, FL 33172, Officers: Maura A. Paz, Director/President/Treasurer, Lild C. Barrera, Vice President/Secretary

Intercarga U.S.A. Corporation, 8325 N.W. 66th Street, Miami, FL 33166, Officers: Alberto Blest, President/Stockholder, Mariana De Ruiz, Treasurer/Stockholder, Carlos Salhuana, Stockholder

U.S. Cargo, Inc., 1920 N.W. 94th Ave., Miami, FL 33172, Officers: Daniel Gamas, President/Director, John H. Shaw, Secretary/Director.

Dated: February 10, 1994.

By the Federal Maritime Commission.

Joseph C. Polking,

Secretary.

[FR Doc. 94–3547 Filed 2–15–94; 8:45 am]

BILLING CODE 6730–01–M

FEDERAL RESERVE SYSTEM

Agency Forms Under Review

BACKGROUND: Notice is hereby given of the submission of proposed information collection to the Office of Management and Budget (OMB) for its review and approval under the Paperwork Reduction Act (Title 44 U.S.C. Chapter 35) and under OMB regulations on Controlling Paperwork Burdens on the Public (5 CFR part 1320). A copy of the proposed information collection(s) and supporting documents is available from the agency clearance officer listed in the notice. Any comments on the proposal should be sent to the agency clearance officer and to the OMB desk officer listed in the notice.

DATES: Comments are welcome and should be submitted on or before March 11, 1994.

FOR FURTHER INFORMATION CONTACT: Mary M. McLaughlin, Federal Reserve Board Clearance Officer (202-452-3829), Division of Research and Statistics, Board of Governors of the Federal Reserve System. For the hearing impaired only, Telecommunications Device for the Deaf (TDD), Dorothea Thompson (202/452-3544), Board of Governors of the Federal Reserve System, Washington, DC 20551. Gary Waxman, OMB Desk Officer (202/395-7340), Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Room 3208, Washington, D.C. 20503.

SUPPLEMENTARY INFORMATION:

Request for OMB approval to revise the following report:

1. *Report title:* Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks
Agency form number: FFIEC 002
OMB Docket number: 7100-0032
Frequency: Quarterly
Reporters: U.S. branches and agencies of foreign banks
Annual reporting hours: 44,045
Estimated average hours per response: 19.15
Number of respondents: 575
Small businesses are affected.

General description of report:

This information collection is mandatory [12 U.S.C. 3105 (b)(2), 1817(a)(1) and (3), and 3102(b)] and is given partial confidential treatment [5 U.S.C. 552(b)(8)].

On a quarterly basis, all U.S. branches and agencies of foreign banks (U.S. branches) are required to file detailed schedules of assets and liabilities in the form of a condition report and a variety of supporting schedules. This balance sheet information is used to fulfill the supervisory and regulatory requirements of the International Banking Act of 1978. The data are also used to augment the bank credit, loan, and deposit information needed for monetary policy purposes. The report is collected and processed by the Federal Reserve on behalf of all three federal bank regulatory agencies. The proposed changes affect several existing schedules; the proposed changes are as follows:

(1) Revisions to reflect the effect of Financial Accounting Standards Board Statement No. 115, "Accounting for Certain Investments in Debt and Equity Securities" (FASB 115), which agencies and branches of foreign banks must adopt for FFIEC 002 purposes for fiscal years beginning after December 15, 1993:

(a) A new item would be added to Schedule RAL, "Assets and Liabilities", for "Assets Held in Trading Accounts."

(b) In the Memorandum section of Schedule RAL, "Assets and Liabilities", Memorandum item 1, "Market value of securities held", would be deleted. Four new memoranda items would be added for "Fair value of held-to-maturity securities", "Amortized cost of held-to-maturity securities", "Fair value of available-for-sale securities", and "Amortized cost of available-for-sale securities."

(2) On Schedule RAL, "Assets and Liabilities", a memorandum item would be added to indicate the level of auditing work performed for the U.S. branch.

(3) On Schedule C, "Loans", a new item would be added for "Lease financing receivable (net of unearned income)", with a split into separate subitems for U.S. addressees (domestic) and non-U.S. addressees (domestic).

(4) On Schedule M, "Duefrom/Due to Related Institutions in the U.S. and in Foreign Countries", the title for Part IV, "Allowance for loan losses" would be retitled as "Confidential Loan Information", and a new item would be added for "Other Real Estate Owned."

(5) On Schedule M, Part V, "Commitments and contingencies with related depository institutions", two new items would be added for "all other off-balance sheet contingent liabilities" and "all other off-balance sheet continent claims."

In addition, the general instructions to the FFIEC 002 would be modified to allow on-balance sheet amounts associated with conditional and exchange contracts (e.g., forwards, interest rate swaps, and options) to be offset in accordance with Financial Accounting Standards Board Interpretation No. 39. This would be an interim treatment pending clarification of an interpretive issue under Interpretation No. 39. However, consistent with existing instructions to the commercial bank Call Report, the instructions to the FFIEC 002 would be modified to indicate that the netting of assets and liabilities other than those arising from conditional and excange contracts will not be permitted unless specifically required by the instructions.

The effective date for the proposed changes, if approved, would be the March 31, 1994, report date.

Board of Governors of the Federal Reserve System, February 10, 1994.

William W. Wiles,

Secretary of the Board.

[FR Doc. 94-3539 Filed 2-15-94; 8:45 am]

BILLING CODE 6210-01-F

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Privacy Act of 1974: Altered System of Records

AGENCY: Office of the Assistant Secretary for Management and Budget, Office of the Secretary, HHS.

ACTION: Notice of an altered system of records.

SUMMARY: The U.S. Department of Health and Human Services (HHS) proposes to amend the system notice for its system of records 09–90–0024, the Financial Transactions of HHS Accounting and Finance Offices, by adding routine use Number 16. This routine use would enable the Department to disclose necessary information to automated data processing contractors that have been hired to develop, test, or operate automated data processing systems to be used for processing the financial and accounting transactions of HHS.

DATES: HHS invites interested parties to submit comments on the proposed routine use on or before March 18, 1994. HHS has sent a Report of Altered System to the Congress and to the Office of Management and Budget (OMB) on February 10, 1994. The alteration to the

system will be effective 40 days from the date submitted to OMB unless HHS receives comments which would result in a contrary determination.

ADDRESSES: Please address comments to: Deputy Assistant Secretary, Finance, Room 739–H, Hubert H. Humphrey Building, 200 Independence Ave, SW., Washington, DC 20201.

Comments received will be available for inspection at this same address from 9 a.m. to 3 p.m. Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Sue Mundstuk, DASF Privacy Act Coordinator, Room 705–D, Hubert H. Humphery Building, 200 Independence Ave, SW, Washington, DC 20201, Telephone: (202) 690–6228.

SUPPLEMENTARY INFORMATION: The system notice was last published at 53 FR 11707 (1988). The proposed routine use is to enable the agency to disclose to a contractor so that it can develop, test, or operate automated data processing systems to be used for processing these financial transactions. This use meets the compatibility of purpose criterion since the financial records have been collected to process and keep track of individual financial transactions, and the automated data processing system being serviced by the contractor will be used for that purpose.

The complete system notice is republished below.

Dated: February 7, 1994.

Kenneth S. Apfel,

Assistant Secretary for Management and Budget.

09–90–0024

SYSTEM NAME:

Financial Transactions of HHS Accounting and Finance Offices, HHS/OS/ASMB.

SECURITY CLASSIFICATION:

None.

SYSTEM LOCATION:

See Appendix 1.

Memoranda copies of claims submitted for reimbursement of travel and other expenditures while on official business may also be maintained at the administrative office of the HHS employee. Records concerning delinquent debts may also be maintained at the program office or by designated claims officers apart from the finance office.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

All persons who receive a payment from OPDIV/Agency/Regional finance offices and all persons owing monies to these HHS offices. Persons receiving payments include, but are not limited to, travelers on official business, grantees, contractors, consultants, and recipients of loans and scholarships. Persons owing monies include, but are not limited to, persons who have been overpaid and who owe HHS a refund and persons who have received from HHS goods or services for which there is a charge or fee (e.g. Freedom of Information Act requesters).

CATEGORIES OF RECORDS IN THE SYSTEM:

Name, identification number, address, purpose of payment, accounting classification and amount paid. Also, in the event of an overpayment and for delinquent loans, grants or scholarships, the amount of the indebtedness, the repayment status and the amount to be collected.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Budget and Accounting Act of 1950 (Pub. L. 81–784). Debt Collection Act of 1982 (Pub. L. 97–365).

PURPOSE(S):

These records are an integral part of the accounting systems at operating division, agency, regional office and specific area locations. The records are used to keep track of all payments to individuals, exclusive of salaries and wages, based upon prior entry into the systems of the official commitment and obligation of government funds. When an individual is to repay funds advanced as a loan or scholarship, etc., the records will be used to establish a receivable record and to track repayment status. In the event of an overpayment to an individual, the record is used to establish a receivable record for recovery of the amount claimed. The records are also used internally to develop reports to the Internal Revenue Service and applicable state and local taxing officials of taxable income. This is a Departmentwide notice of payment and collection activities at all locations listed in Appendix 1.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

1. Records will be routinely disclosed to the Treasury Department for check preparation.

2. Records may be disclosed to members of Congress concerning a Federal financial assistance program. Also, disclosure may be made to a congressional office from an individual's record in response to an inquiry from the congressional office made at the request of the individual.

3. In the event the Department deems it desirable or necessary, in determining whether particular records are required to be disclosed under the Freedom of Information Act, disclosure may be made to the Department of Justice for the purpose of obtaining its device.

4. A record from this system of records may be disclosed as a "routine use" to a Federal, State or local agency maintaining civil, criminal or other relevant enforcement records or other pertinent records, such as current licenses, if necessary to obtain a record relevant to an agency decision concerning the hiring or retention of an employee, the issuance of a security clearance, the letting of a contract or the issuance of a license, grant or other benefit.

5. A record from this system of records may be disclosed to a Federal agency, in response to its request, in connection with the hiring or retention of an employee, the issuance of a security clearance, the reporting of an investigation of an employee, the letting of a contract or the issuance of a license, grant, or other benefit by the requesting agency, to the extent that the record is relevant and necessary to the requesting agency's decision on the matter.

6. Where Federal agencies having the power to subpoena other Federal agencies' records, such as the Internal Revenue Service or the Civil Rights Commission, issue a subpoena to the Department for records in this system of records, the Department will make such records available.

7. Where a contract between a component of the Department and a labor organization recognized under E.O. 11491 provides that the agency will disclose personal records relevant to the organization's mission, records in the system of records may be disclosed to such organization.

8. A record may be disclosed to the Department of Justice, to a court, or other tribunal, or to another party before such tribunal, when: (1) HHS, or any component thereof; (2) Any HHS employee in his or her official capacity; (3) Any HHS employee in his or her individual capacity where the Department of Justice (or HHS, where it is authorized to do so) has agreed to represent the employee; or (4) The United States or any agency thereof where HHS determines that the litigation is likely to affect HHS or any of its components, is a party to litigation or has an interest in such litigation, and HHS determines that the use of such records by the Department of Justice, the tribunal, or the other party is relevant and necessary to the litigation and would help in the effective representation of the governmental party, provided however, that in each

case, HHS determines that such disclosure is compatible with the purpose for which the records were collected.

9. A record about a loan applicant or potential contractor or grantee may be disclosed to credit reporting agencies to obtain a credit report in order to determine his/her creditworthiness.

10. When an individual applies for a loan under a loan program as to which the OMB has made a determination under I.R.C. 6103(a)(3), a record about his/her application may be disclosed to the Treasury Department to find out whether he/she has a delinquent tax account, for the sole purpose of determining his/her creditworthiness.

11. A record from this system may be disclosed to the following entities in order to help collect a debt owed the United States:

a. To another Federal agency so that agency can effect a salary offset;

b. To another Federal agency so that agency can effect an administrative offset under common law or under 31 U.S.C. 3716 (withholding from money payable to, or held on behalf of, the individual);

c. To the Treasury Department to request his/her mailing address under I.R.C. 6103(m)(2) in order to locate him/her or in order to have a credit report prepared;

d. To agents of the Department and to other third parties, including credit reporting agencies, to help locate him/her or to obtain a credit report on him/her, in order to help collect or compromise a debt;

e. To debt collection agents under 31 U.S.C. 3718 or under common law to help collect a debt; and

f. To the Justice Department for litigation or for further administrative action.

Disclosure under part (d) of this use is limited to the individual's name, address, Social Security number, and other information necessary to identify him/her. Disclosure under parts (a)–(c) and (e) is limited to those items; the amount, status, and history of the claim; and the agency or program under which the claim arose. An address obtained from IRS may be disclosed to a credit reporting agency under part (d) only for purposes of preparing a commercial credit report on the individual. Part (a) applies to claims or debts arising or payable under the Social Security Act only if the employee consents in writing to the offset.

12. A record from this system may be disclosed to another Federal agency that has asked the Department to effect an administrative offset under common law or under 31 U.S.C. 3716 to help collect a debt owed the United States. Disclosure under this routine use is limited to: Name, address, Social Security number, and other information necessary to identify the individual, information about the money payable to or held for the individual, and other information concerning the administrative offset.

13. Disclosure with regard to claims or debts arising under or payable under the Social Security Act may be made from this system to "consumer reporting agencies" as defined in the Fair Credit Reporting Act (15 U.S.C. 1681a(f)) or the Federal Claims Collection Act of 1986 (31 U.S.C. 3701(a)(3)). However, this disclosure will not be made with regard to debts from overpayments to beneficiaries under Title II (Old-Age, Survivors, and Disability Insurance) and Title XVI (Supplementary Security Income) of this Act. The purpose of this disclosure is to aid in the collection of outstanding debts owed the Federal Government. Disclosure of records is limited to the individual's name, address, Social Security number, and other information necessary to establish the individual's identity; the amount, status, and history of the claim; and the agency or program under which the claim arose.

14. Information in this system of records is used to prepare W–2 and 1099 Forms to submit to the Internal Revenue Service and applicable state and local governments items considered to be included as income to an individual: certain travel related payments to employees, all payments made to persons not treated as employees (e.g. fees to consultants and experts), and amounts written-off as legally or administratively uncollectible, in whole or in part.

15. A record may be disclosed to banks enrolled in the Treasury Credit Card Network to collect a payment or debt when the individual has given his/her credit card number for this purpose.

16. Records may be disclosed to a contractor (and/or to its subcontractor) who has been engaged to perform services on an automated data processing system used in processing financial transactions. The contractor may have been engaged to develop, modify and test a new automated data processing (ADP) system, including both software and hardware upgrades or enhancements to such a system; perform periodic or major maintenance on an existing ADP system; audit or otherwise evaluate the performance of such an ADP system; and/or operate such an ADP system.

DISCLOSURE TO CONSUMER REPORTING AGENCIES:

Disclosure pursuant to 5 U.S.C. 552a(b)(12): Disclosure may be made from this system to "consumer reporting agencies" as defined in the Fair Credit Reporting Act (15 U.S.C. 1681a(f) or the Federal Claims Collection Act of 1966 (31 U.S.C. 3701(a)(3)). The purpose of this disclosure is to aid in the collection of outstanding debts owed to the Federal Government, typically, to provide an incentive for debtors to repay delinquent Federal Government debts by making these debts part of their credit records. Disclosure of records is limited to the individual's name, address, Social Security number, and other information necessary to establish the individual's identity; the amount, status and history of the claim; and the agency or program under which the claim arose. The disclosure will be made only after the procedural requirements of 31 U.S.C. 3711(f) have been followed.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM: STORAGE:

Hard copy documents are manually filed at agency and regional office sites; and on disc pack and magnetic tape at central computer sites.

RETRIEVABILITY:

This varies according to the particular accounting system within the Operating Division, Agency and Regional Office. Usually the hard copy document is filed by name within accounting classification. Computer records may be indexed by social security number and voucher number. Intra-departmental uses and transfers concern the validation and certification for payment, and for HHS internal audits.

SAFEGUARDS:

1. *Authorized users:* Employees and officials directly responsible for programmatic or fiscal activity, including administrative and staff personnel, financial management personnel, computer personnel, and managers who have responsibilities for implementing HHS funded programs.

2. *Physical safeguards:* File folders, reports and other forms of personnel data, and electronic diskettes are stored in areas where fire and life safety codes are strictly enforced. All documents and diskettes are protected during lunch hours and nonworking hours in locked file cabinets or locked storage areas. Magnetic tapes and computer matching tapes are locked in a computer room and tape vault.

3. *Procedural safeguards:* Password protection of automated records is provided. All authorized users protect information from public view and from unauthorized personnel entering an office. The safeguards described above were established in accordance with HHS Chapter 45–13 of the General Administration Manual; and the HHS ADP Systems Manual Part 6, "ADP Systems Security."

RETENTION AND DISPOSAL:

Records are purged from automated files once the accounting purpose has been served; printed copy and manual documents are retained and disposed of in accordance with General Accounting Office principles and standards as authorized by the National Archives and Records Service.

SYSTEM MANAGER(S) AND ADDRESS:

See Appendix 2.

NOTIFICATION PROCEDURE:

Inquiries are to be made, either in writing or in person, to the organizations listed under "Location" in appendix 1, with the exception of Food and Drug Administration records. For those records, contact: FDA Privacy Act Coordinator (HFW–30), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857.

Give name and social security number, purpose of payment or collection (travel, grant, etc.) and, if possible, the agency accounting classification.

RECORD ACCESS PROCEDURE:

Same as notification procedures. Requesters should also clearly specify the record contents being sought, and may include a request for an accounting of disclosures that have been made of their records, if any. (These access procedures are in accordance with Department regulations (45 CFR 5b.5(a)(2)).)

CONTESTING RECORD PROCEDURE:

Contact the official at the address specified under notification procedure above, and reasonably identify the record and specify the information being contested, the corrective action sought, and the reasons for requesting the correction, along with supporting information to show how the record is inaccurate, incomplete, untimely or irrelevant.

RECORD SOURCE CATEGORIES:

Travel vouchers submitted by the individual; grant, contract and loan award document; delinquent loan, grant and scholarship record; consultant invoice of services rendered; and application for travel advance.

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

None.

Appendix 1

Location

Payments to and Collections from individual records are located at the following HHS Regional Offices:

Regional Office I, John F. Kennedy Federal Building, Boston, MA 02203
Regional Office II, 26 Federal Plaza, Room 41–106, New York, NY 10278
Regional Office III, 3535 Market Street, PO Box 13716, Philadelphia, PA 19101
Regional Office IV, 101 Marietta Tower, Atlanta, GA 30323
Regional Office V, 105 West Adams St., Chicago, IL 60603
Regional Office VI, 1200 Main Tower, Room, 935, Dallas, TX 75202
Regional Office VII, Federal Office Building, Kansas City, MO 64106
Regional Office VIII, Federal Office Building, 1961 Stout Street, Denver, CO 80294–3538
Regional Office IX, Federal Office Building, Room 411, 50 United Nations Plaza, San Francisco, CA 94102
Regional Office X, 2201 6th Avenue, Seattle, WA 98121.

Payments to and Collections from individuals records are located at the following HHS Operating Division and Agency Headquarters and Field Offices:

Office of the Secretary (to include the records of Administration for Children and Families) Hubert H. Humphrey Building, 200 Independence Avenue, SW., Division of Accounting Operations, Washington, DC 20201.

Indian Health Service

Headquarters IHS, 5600 Fishers Lane, Room 6A–30, Rockville MD 20857
Aberdeen Area IHS, Federal Building, 115 Fourth Ave., SE, Aberdeen, SD 57401
Alaska Area IHS, 250 Gambell St., Anchorage, AK 99501
Albuquerque Area Office, 505 Marquette NW, Suite 1502, Albuquerque, NM 57102–2163
Albuquerque Headquarters West IHS, 300 San Mateo, NE, Suite 500, Albuquerque, NM 87108
Bemidji Area IHS, 203 Federal Building, Bemidji, MN 56601
Billings Area IHS, 711 Central Ave., Billings, MT 59103
California Area IHS, 1825 Bell St., Sacramento, CA 95825–1097
Nashville Area IHS, 3310 Perimeter Hill Dr., Nashville, TN 37211
Navajo Area IHS, PO Box "G", Window Rock, AZ 86515–5004
Oklahoma Area IHS, 3625 NW 56th St., Five Corporation Plaza, Oklahoma City, OK 73112
Phoenix Area IHS, 3738 North 16th St., Suite "A", Phoenix, AZ 85016–5981
Portland Area IHS, 1220 SW Third Ave., Room 476, Portland, OR 97204–2892
Office of Health Program Research and Development IHS, 7900 South "J" Stock Rd., Tucson, AZ 85746–9352.

Public Health Service

Centers for Disease Control and Prevention, Financial Management Office (E–12), 1600 Clifton Road, NE, Atlanta, GA 30333
Centers for Disease Control and Prevention, Accounting Section (C05), Robert A. Taft Laboratories, 4676 Columbia Parkway, Cincinnati, OH 45226
Food and Drug Administration, Parklawn Building, HFA–120, 5600 Fishers Lane, Rockville, MD 20857
Food and Drug Administration, 60 Eighth Street, NE, Atlanta, GA 30309
Food and Drug Administration, Boston District Office, One Montvale Avenue, Stoneham, MA 62180
Food and Drug Administration, 599 Delaware Avenue, Buffalo, NY 14202
Food and Drug Administration, Room 700, Federal Office Building, 850 3rd Avenue (at 30th Street), Brooklyn, NY 11232
Food and Drug Administration, 61 Main Street, West Orange, NJ 07052
Food and Drug Administration, room 1204, US Customhouse, 2nd and Chestnut Streets, Philadelphia, PA 19106
Food and Drug Administration, 900 Madison Avenue, Baltimore, MD 21201
Food and Drug Administration, San Juan District Office, PO Box 5719 PTA, De Tierra Station, San Juan, PR 00906–5719
Food and Drug Administration, Room 1222, Main Post Office Building, 433 West Van Buren Street, Chicago, IL 60607
Food and Drug Administration, 1560 East Jefferson Avenue, Detroit, MI 48207
Food and Drug Administration, 1141 Central Parkway, Cincinnati, OH 45202
Food and Drug Administration, 240 Hennepin Avenue, Minneapolis, MN 55401
Food and Drug Administration, 3032 Bryan Street, Dallas, TX 75204
Food and Drug Administration, 4298 Elysian Fields, New Orleans, LA 70122
Food and Drug Administration, National Center for Toxicological Research, Jefferson, AR 72079
Food and Drug Administration, 1009 Cherry Street, Kansas City, MO 64106
Food and Drug Administration, Room 1002, US Courthouse and Courthouse Building, 1114 Market Street, St. Louis, MO 63101
Food and Drug Administration, Building 20, Denver Federal Center, PO. Box 25087, Denver, CO 80255–0087
Food and Drug Administration, Federal Office Building, Room 506, 50 U.N. Plaza, San Francisco, CA 94102
Food and Drug Administration, 1521 West Pico Boulevard, Los Angeles, CA 90015
Food and Drug Administration, 22201 23rd Avenue, SE., Bothell, WA 98021–4421.

National Institutes of Health

National Institutes of Health, Operations Accounting Branch, Building 31 Room B1B58, 9000 Rockville Pike, Bethesda, MD 20014
National Institutes of Health, Building 1, Room 222, Rocky Mountain laboratory, Hilton, MT 59840
National Institutes of Health, National Institute of Mental Health, WAW Building, Room 562, St. Elizabeth's Hospital, Washington, DC 20032

National Institutes of Health, Frederick Cancer Research Facility, Fort Detrick Building, Room 427, Frederick, MD 21702–1201
National Institutes of Health, National Institutes of Environmental Health Sciences, Building 101, Room B2–03, Research Triangle Park, NC 27709
National Institutes of Health, National Institute on Drug Abuse, Addiction Research Center, 4940 Eastern Avenue, Building C, Room 248, Baltimore, MD 21224
National Institutes of Health, National Institute on Aging, Gerontology Research Center, 4940 Eastern Avenue, Room 1–E–15, Baltimore, MD 21224
Social Security Administration, Division of Finance, Administrative Collections, PO Box 17052, Baltimore, MD 21235
Social Security Administration, Division of Finance, Vendor Payment Inquiries, PO Box 47, Baltimore, MD 21235
Social Security Administration, Office of Disability Operations, PO Box 1039, Baltimore, MD 21241

Title II:

Social Security Administration—Title II, Northeastern Program Service Center, PO Box 4400, Jamaica, NY 11431
Social Security Administration—Title II, Mid-Atlantic Program Service Center, PO Box 3430, Philadelphia, PA 19122
Social Security Administration—Title II, Southeastern Program Service Center, PO Box 830580, Birmingham, AL 35282–9688
Social Security Administration—Title II, Great Lakes Program Service Center, PO Box 4471, Chicago, IL 60680
Social Security Administration—Title II, Western Program Service Center, PO Box 1909, Richmond, CA 94802–9966
Social Security Administration—Title II, Mid-America Program Service Center, PO Box 15528, Kansas City, MO 64106–9937
Social Security Administration—Title XVI, Northeastern Program Service Center, PO Box 4500, Jamaica, NY 11431
Social Security Administration—Title XVI, Mid-Atlantic Program Service Center, PO Box 3490, Philadelphia, PA 19122
Social Security Administration—Title XVI, Southeastern Program Service Center, PO Box 12263, Birmingham, AL 35282–3678
Social Security Administration—Title XVI, Great Lakes Program Service Center, PO Box 5931, Chicago, IL 60680
Social Security Administration—Title XVI, Western Program Service Center, PO Box 4055, Richmond, CA 94804–9941
Social Security Administration—Title XVI, Mid-America Program Service Center, PO Box 15627, Kansas City, MO 64106–9937
Health Care Financing Administration, Gwynn Oak Avenue, Baltimore, MD 21235.

Payments to and Collections from individual records maintained by the Payment Management System at the following central payment office for Grants and contracts:

Public Health Service, Division of Payment Management, Box 6021, Rockville, MD 20852.

Appendix 2

Systems Manager, Departmental principles and standards concerning the system of records are the responsibility of:

Department of Health and Human Services, Assistant Secretary for Management and Budget, Office of the Secretary, Room 510A, Hubert H. Humphrey Building, Washington, DC 20201

Operational responsibilities are as follows:

• For payment and Collections from individual records at Department and Regional Offices: Department of Health and Human Services, Office of the Secretary and Headquarters for Regional Operations, Finance, Room 750D, Hubert H. Humphrey Building, Washington, DC 20201.

• For Payments and Collections from individual records at Principal Operating Component Offices (CDC, FDA, NIH, SAMHSA, HRSA, ASH, IHS, AHCPR):

Public Health Service, Director, Division of Financial Management, Room 16–05, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857
Social Security Administration, Director, Office of Financial Management, Room 840, Annex Social Building, Baltimore, MD 21235
Administration for Children and Families, Director, Office of Financial Management, 370 L'Enfant Promenade, SW., 6th Floor, Washington, DC 20447
Health Care Financing Administration, Director, Office of Management and Budget, Room G–P–4, East High Rise Building, 8401 Security Blvd, Baltimore, MD 21235
or
Health Care Financing Administration, Room H1, Hubert H. Humphrey Building, 200 Independence Ave, SW., Washington, DC 20201.

[FR Doc. 94–3541 Filed 2–15–94; 8:45 am]
BILLING CODE 4150–04

Centers for Disease Control and Prevention

Sanford Cohen and Associates' Working Group for the Idaho National Engineering Laboratory Environmental Dose Reconstruction Project and Public Information Meetings; Public Meetings

The National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC), announces the following meetings.

NAME: Sanford Cohen and Associates' Working Group for the Idaho National Engineering Laboratory Environmental Dose Reconstruction Project and Public Information meetings

Date: Thursday, March 3, 1994
Time: 2 p.m.–4 p.m.
Place: Shilo Inn, 780 Lindsay Boulevard, Idaho Falls, Idaho 83402

Date: Wednesday, March 23, 1994
Time: 7 p.m.–9 p.m.
Place: Red Lion-Riverside, 2900 Chinden Boulevard, Boise, Idaho 83714

Date: Thursday, March 24, 1994
Time: 7 p.m.–9 p.m.
Place: Red Lion-Riverside, 2900 Chinden Boulevard, Boise, Idaho 83714

Date: Tuesday, May 24, 1994
Time: 7 p.m.–9 p.m.
Place: Shilo Inn, 702 Appleway, Coeur d'Alene, Idaho 83814

Date: Wednesday, May 25, 1994
Time: 10 a.m.–3 p.m.
Place: Shilo Inn, 702 Appleway, Coer d'Alene, Idaho 83814

Date: Wednesday, July 13, 1994
Time: 10 a.m.–3 p.m.
Place: Weston Plaza Hotel and Convention Center, 1350 N. Blue Lakes Boulevard, Twin Falls, Idaho 83301

STATUS: Open to the public for observation and comment, limited only by space available. The meeting room will accommodate approximately 100 people.

PURPOSE: Under a Memorandum of Understanding signed in December 1990 with the Department of Energy (DOE), the Department of Health and Human Services (HHS) has been given the responsibility and resources for conducting analytic epidemiologic investigations of residents of communities in the vicinity of DOE facilities and other persons potentially exposed to radiation or to potential hazards from non-nuclear energy production and use. HHS delegated program responsibility to CDC.

CDC has begun an environmental dose reconstruction for DOE's Idaho National Engineering Laboratory (INEL) near Idaho Falls, Idaho. Sanford Cohen & Associates (SC&A) is gathering the data necessary to perform the dose reconstruction under contract to CDC. SC&A has formed a working group made up of Idaho citizens. The working group's primary purpose is to follow the project's progress and provide input in SC&A's planning process.

The working group meetings are intended to promote direct public input into Phase I of the INEL Dose Reconstruction Project. Topics will focus particularly on technical and operational issues to help improve and expedite the process of identifying and retrieving documents relevant to a dose reconstruction for INEL.

The public information meetings are to: (1) share information about SC&A's working group, (2) provide the public an opportunity to review actual records that have been entered into the database; and (3) gain input from the public on the project.

Agenda items are subject to change as priorities dictate.

CONTACT PERSON FOR MORE INFORMATION: Leeann S. Denham, Radiation Studies Branch, Division of Environmental Hazards and Health Effects, NCEH, CDC, 4770 Buford Highway, NE., (F–35), Atlanta, Georgia, 30341–3724, telephone 404/488–7040, FAX 404/488–7044.

Dated: February 10, 1994.

Elvin Hilyer,

Associate Director for Policy Coordination, Centers for Disease Control and Prevention (CDC).

[FR Doc. 94–3577 Filed 2–15–94; 8:45 am]

BILLING CODE 4160–18–M

Food and Drug Administration

Consumer Participation; Notice of Open Meeting

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the following district consumer exchange meeting: Detroit, Michigan District Office, chaired by Carl Reynolds, District Director. The topics to be discussed are medical devices, current good manufacturing practice regulations, proposed revisions, and request for comments.

DATES: Thursday, February 24, 1994, 1 p.m. to 3 p.m.

ADDRESSES: Methodist Hospital Auditorium, 1601 North Senate Ave., Indianapolis, IN 46206.

FOR FURTHER INFORMATION CONTACT: Janet LeClair, Public Affairs Specialist, Food and Drug Administration, 101 West Ohio St., Indianapolis, IN 46204, 317–226–6500.

SUPPLEMENTARY INFORMATION: The purpose of this meeting is to encourage dialogue between consumers and FDA officials, to identify and set priorities for current and future health concerns, to enhance relationships between local consumers and FDA's district offices, and to contribute to the agency's policymaking decisions on vital issues.

Dated: February 9, 1994.

Michael R. Taylor,

Deputy Commissioner for Policy.

[FR Doc. 94–3571 Filed 2–15–94; 8:45 am]

BILLING CODE 4160–01–F

Health Resources and Services Administration

Advisory Council; Meeting

In accordance with section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463), announcement is made of the following National Advisory body scheduled to meet during the month of March 1994:

Name: HRSA AIDS Advisory Committee.

Time: March 14–15, 1994, 8 a.m.

Place: National Institutes of Health, Building 31, Conference Rm. 6, 9000 Rockville Pike, Bethesda, MD 20205.

The meeting is open to the public.

Purpose: The Committee advises the Secretary with respect to health professional education, patient care/health care delivery to HIV-infected individuals, and research relating to transmission, prevention and treatment of HIV infection.

Agenda: Discussions will be held concerning issues related to the reauthorization of the Ryan White Comprehensive AIDS Resources and Emergency Act of 1990; the AIDS Education Training Centers program, and the evaluation of Ryan White Programs.

Anyone requiring information regarding the subject Committee should contact Pearl Katz, Ph.D., AIDS Program Office, Health Resources and Services Administration, room 14A–21, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857, Telephone (301) 443–4588.

Agenda Items are subject to change as priorities dictate.

Dated: February 10, 1994.

Jackie E. Baum,

Advisory Committee Management Officer, HRSA.

[FR Doc. 94–3549 Filed 2–15–94; 8:45 am]

BILLING CODE 4160–15–P

Public Health Service

Special Project Grants; Maternal and Child Health Services; Federal Set-Aside Program; Collaborative Health, Education and Human Services Systems Interprofessional Education and Training

AGENCY: Health Resources and Services Administration (HRSA).

ACTION: Notice of availability of funds.

SUMMARY: The Maternal and Child Health Bureau (MCHB), HRSA, announces that fiscal year (FY) 1994 funds are available for grants to create collaborative health, education, and human service systems for children and their families, including children with special health care needs. Awards will be made under the program authority of section 502(a) of the Social Security Act, the Maternal and Child Health (MCH) Federal Set-Aside Program, which authorizes MCH Special Projects of Regional and National Significance (SPRANS), including special MCH improvement projects (MCHIP) which contribute to the health of children with special health care needs (CSHCN) and their families.

Approximately $600,000 will be available to support up to 2 grants at a maximum of $300,000 per award per year for up to 4 years. Funds for the MCH Federal Set-Aside Program are appropriated by Public Law 103–112. A **Federal Register** notice announcing the availability of funds for other SPRANS categories will be published in the near future.

The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of Healthy People 2000, a PHS-led national activity for setting priority areas. The MCH Block Grant Federal Set-Aside Program addresses issues related to the Healthy People 2000 objectives of improving maternal, infant, child and adolescent health and developing service systems for children at risk of chronic and disabling conditions. Potential applicants may obtain a copy of Healthy People 2000 (Full Report: Stock No. 017–001–00474–0) or Healthy People 2000 (Summary Report: Stock No. 017–001–00473–1) through the Superintendent of Documents, Government Printing Office Washington, DC 20402–9325, (telephone: 202 783–3238).

ADDRESSES: Grant applications must be obtained from and submitted to: Chief, Grants Management Branch, Office of Program Support, Maternal and Child Health Bureau, Health Resources and Services Administration, room 18–12, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857, (301) 443–1440. Applicants for these projects will use application Form PHS 5161–1 with revised face page DHHS Form 424, approved by OMB under control number 0937–0189.

DATES: The application deadline date is March 18, 1994. Competing applications will be considered to be on time if they are either:

(1) Received on or before the deadline date, or

(2) Postmarked on or before the deadline date and received in time for orderly processing. Applicants should request a legibly dated receipt from a commercial carrier or the U.S. Postal Service, or obtain a legibly dated U.S. Postal Service postmark. Private metered postmarks will not be accepted as proof of timely mailing.

Late applications or those sent to an address other than indicated in the **ADDRESS** section will be returned to the applicant.

FOR FURTHER INFORMATION CONTACT: For programmatic or technical information contact Merle G. McPherson, M.D., 5600 Fishers Lane, room 18A–27, telephone: 301 443–2350. Requests for information

concerning business management issues should be directed to Mrs. Maxine Toense, Grants Management Branch, telephone: 301 443–1440.

SUPPLEMENTARY INFORMATION:

Program Background and Objectives

Grants covered by this announcement will be supported by SPRANS funds set aside under the Maternal and Child Health Services Block Grant in the category of special MCH improvement projects (MCHIP) which contribute to the health of CSHCN and their families. The purpose of these grants is to help eliminate overlap and fragmentation of services to children and their families through creation of new community service systems, working together with health, education and social service professionals. Applications are solicited for projects which:

(1) Demonstrate the ability of health, social service and education professionals to work together in communities to foster successful physical, social and emotional growth for children and their families;

(2) Assist in the development of curricula at institutions of higher learning, based on best practices learned in community settings; and

(3) Disseminate a collaborative model of personnel training and service delivery at the regional, State and national levels.

Grantees are expected to work collaboratively with the Commission on Leadership in Interprofessional Education to field test model curricula. The Commission, an organizational unit of the Association of Teacher Educators which grew out of a March, 1990, symposium cosponsored by MCHB, the American Association of Colleges for Teacher Education, and the American Academy of Pediatrics, focuses on the study of ways to produce a new generation of interprofessionally oriented leaders in health, teaching, administration, social work, and other human service professions whose members possess the knowledge, skills and values needed to create new community service systems for children and their families.

Preference for funding will be given to applicants with prior experience linking health, education and social service professionals together with policy makers in State and local health and education agencies and private sector organizations to solve complex problems facing children and their families that require collaboration. This means that approved applicants with such experience will be funded ahead of other categories or groups of applicants.

Applicants will use guidelines adapted from the FY 1993 SPRANS Field-Initiated Project subcategory to prepare their applications. These guidelines will be included with the grant application materials. Information in this announcement, such as application receipt dates, will supersede that contained in the guidelines.

Time does not permit a formal comment period on the category and preferences described above. Any comments which members of the public wish to make should be submitted to: Chief, Grants Management Branch, at the address listed in the ADDRESSES section.

Special Concerns

In its administration of the MCH Services Block Grant, the MCHB places special emphasis on improving service delivery to women and children from culturally identifiable populations who have been disproportionately affected by barriers to accessible care. This means that SPRANS projects are expected to serve and appropriately involve in project activities members of ethnoculturally distinct groups, unless there are compelling programmatic or other justifications for not doing so. The MCHBs intent is to ensure that project outcomes are of benefit to culturally distinct populations and to ensure that the broadest possible representation of culturally distinct and historically underserved groups is supported through programs and projects sponsored by the MCHB.

Projects supported under SPRANS are expected to be part of community-wide, comprehensive initiatives, to reflect appropriate coordination of primary care and public health activities, and to target HRSA resources effectively to fill gaps in the Nations health system for at-risk mothers and children. This applies especially to projects in the 15 communities in the Nation which have received grants from HRSA under the Administrations Healthy Start initiative. Grantees in these communities providing services related to activities of a Healthy Start program are expected to coordinate their projects with the Healthy Start program efforts. Healthy Start communities include: Aberdeen Area Indian Nations, NE/ND/SD; Baltimore, MD; Birmingham, AL; Boston, MA; Chicago, IL; Cleveland, OH; Detroit, MI; Lake County, IN; New Orleans, LA; New York, NY; Oakland, CA; Philadelphia, PA; Pittsburgh, PA; PeeDee Region, SC; and Washington, DC.

Grants/Amounts: Up to $600,000 of SPRANS funds will be available to support up to two projects at a maximum of $300,000 per award for a one-year period. Awards are made for grant periods of up to four years.

Review Criteria

The following general criteria are used, as pertinent, to review and evaluate for funding all applications for SPRANS grants and cooperative agreements:

—The quality of the project plan or methodology.
—The need for the services, research, training or technical assistance.
—The cost-effectiveness of the proposed project relative to the number of persons proposed to be benefitted, served or trained, considering, where relevant, any special circumstances associated with providing care or training in various areas.
—The extent to which the project will contribute to the advancement of MCH and/or CSHCN services.
—The extent to which rapid and effective use of grant funds will be made by the project.
—The effectiveness of procedures to collect the cost of care and service from third-party payment sources (including government agencies) which are authorized or under legal obligation to make such payment for any service (including diagnostic, preventive and treatment services).
—The extent to which the project will be integrated with the administration of the Maternal and Child Health Services block grants, State primary care plans, public health, and prevention programs, and other related programs in the respective State(s).
—The soundness of the project's management, considering the qualifications of the staff of the proposed project and the applicant's facilities and resources.
—The extent to which the project gives special emphasis to improving service delivery to women and children from culturally identifiable populations who have been disproportionately affected by barriers to accessible care and ensures that members of culturally distinct groups are appropriately represented in the activities of approved grants and cooperative agreements.
—In communities with Healthy Start projects, a commitment by applicants whose projects are related to activities of a Healthy Start program to coordinate their projects with Healthy Start program efforts.
—The strength of the project's plans for evaluation.
—The strength of the applicant's prior experience linking health, education

and social service professionals together with policy makers in State and local health and education agencies and private sector organizations to solve complex problems facing children and their families that require collaboration.

In addition to the above criteria, other special review criteria are used to assess grants announced in this notice. As detailed in the guidance enclosed with the application packet, these special review criteria focus closely on the quality of each element of the program narrative section of the application: the problem; contributing factors; project goals; outcome objectives; methodology; tracking of project implementation; monitoring and evaluations; use of project information; capabilities of the applicant; budget and justification; and the overall significance of the project.

Eligible Applicants

Any public or private entity, including an Indian tribe or tribal organization (as defined at 25 U.S.C. 450b), is eligible to apply for grants in the MCHIP category.

Public Health System Reporting Requirements

This program is subject to the Public Health System Reporting Requirements (approved under OMB No. 0937–0195). Under these requirements, the community-based nongovernmental applicant must prepare and submit a Public Health System Impact Statement (PHSIS). The PHSIS is intended to provide information to State and local health officials to keep them apprised of proposed health services grant applications submitted by community-based nongovernmental organizations within their jurisdictions.

Community-based nongovernmental applicants are required to submit the following information to the head of the appropriate State and local health agencies in the area(s) to be impacted no later than the Federal application receipt due date:

(a) A copy of the face page of the application (SF 424).

(b) A summary of the project (PHSIS), not to exceed one page, which provides:

(1) A description of the population to be served.

(2) A summary of the services to be provided.

(3) A description of the coordination planned with the appropriate State and local health agencies.

Executive Order 12372

The MCH Federal set-aside program has been determined to be a program which is not subject to the provisions of Executive Order 12372 concerning intergovernmental review of Federal programs.

The OMB Catalog of Federal Domestic Assistance number is 93.110.

Dated: December 6, 1993.

William A. Robinson,

Acting Administrator.

[FR Doc. 94–3548 Filed 2–15–94; 8:45 am]

BILLING CODE 4160–15–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Aquatic Nuisance Species Task Force Monitoring Committee Meeting

AGENCY: Department of the Interior, U.S. Fish and Wildlife Service.

ACTION: Notice of meeting.

SUMMARY: This notice announces a meeting of the Monitoring Committee (Committee), a committee of the Aquatic Nuisance Species Task Force. A number of subjects will be discussed during the Committee meeting including: continuation of the review of monitoring programs collecting data concerning nonindigenous species and further development of a pilot program to acquire data from existing monitoring programs.

DATES: The Monitoring Committee will meet from 9 a.m. to 3 p.m. on Thursday, March 3, 1994.

ADDRESSES: The Monitoring Committee meeting will be held at the U.S. Fish and Wildlife Service Building, room 200A, 4401 N. Fairfax Drive, Arlington, Virginia 22203.

FOR FURTHER INFORMATION CONTACT: Dr. James Weaver, National Fisheries Research Center, 7920 NW. 71st Street, Gainesville, Florida 32606 at (904) 378–8181.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C. App. I), this notice announces a meeting of the Aquatic Nuisance Species Task Force Monitoring Committee established under the authority of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (Pub. L. 101–646, 104 Stat. 4761, 16 U.S.C. 4701 *et seq.*, November 29, 1990). Minutes of the meetings will be maintained by the Coordinator, Aquatic Nuisance Species Task Force, room 840, 4401 North Fairfax Drive, Arlington, Virginia 22203 and the Monitoring Committee Chairman, National Fisheries Research Center, 7920 NW. 71st Street, Gainesville, Florida 32606 and will be available for public inspection during regular business hours, Monday through Friday within 30 days following the meeting.

Dated: February 8, 1994.

Gary Edwards,

Assistant Director—Fisheries, Co-Chair, Aquatic Nuisance Species Task Force.

[FR Doc. 94–3559 Filed 2–15–94; 8:45 am]

BILLING CODE 4310–55–M

Great Lakes Panel on Aquatic Nuisance Species; Meeting

AGENCY: Department of the Interior, U.S. Fish and Wildlife Service.

ACTION: Notice of meeting.

SUMMARY: This notice announces a meeting of the Great Lakes Panel on Aquatic Nuisance Species (Great Lakes Panel), a regional committee of the Aquatic Nuisance Species Task Force. A number of subjects will be discussed including: Implementation of the information/education strategy, development of the State comprehensive management plans, legislative and budget priorities, and research needs.

DATES: The Great Lakes will meet from 9 a.m. to 5 p.m. on Friday, March 11, 1994.

ADDRESSES: The meeting will be held at the Holiday Inn Madison West, 1313 John Q. Hammons Drive, Middleton, Wisconsin 53562–3500 at (608) 831–2000.

FOR FURTHER INFORMATION CONTACT: Lori Reynolds, Great Lakes Commission, The Argus Building, 400 Fourth Street, Ann Arbor, Michigan 48103 at (313) 665–9135.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C. App. I), this notice announces a meeting of the Great Lakes Panel on Aquatic Nuisance Species, a regional committee of the Aquatic Nuisance Species Task force established under the authority of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (Pub. L. 101–646, 104 Stat. 7461, 16 U.S.C. 4701 *et seq.*, November 29, 1990). Minutes of meeting will be maintained by Coordinator, Aquatic Nuisance Species Task force, room 840, 4401 North Fairfax Drive, Arlington, Virginia 22203 and the Great lakes Panel Coordinator, Great Lakes Commission, The Argus Building, 400 Fourth Street, Ann Arbor, Michigan 48103 and will be available for public inspection during regular business hours, Monday through Friday within 30 days following the meeting.

Dated: February 8, 1994.

Gary Edwards,

Assistant Director—Fisheries, Co-Chair, Aquatic Nuisance Species Task Force.

[FR Doc. 94–3560 Filed 2–15–94; 8:45 am]

BILLING CODE 4310–55–M

National Park Service

Pecos National Historical Park; Minor Revision of Park Boundary

Public Law 101–313 established Pecos National Historical Park on June 27, 1990. The March 1990 map, referenced in the legislation as "Pecos National Historical Park Boundary Concept" and numbered 430/80028 identified the area of the park as being approximately 5,865 acres including the Forked Lightning Ranch. Section 202(b) of Public Law 101–313 authorizes the Secretary of the Interior to make minor revisions in the boundary of the park in accordance with section 7(c) of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460*l*–4 and following).

Since establishment of the park, the National Park Service has determined that the Forked Lightning Ranch actually included property located outside the established boundary: A 66.29-acre parcel of land encumbered by an easement for the old U.S. Highway 85, and an unencumbered 29.26 acres located west of the old highway easement. It was the intention of the parties involved in the expansion of the park to include the entire Forked Lightning Ranch property within the boundary. In order to facilitate improved resource protection and law enforcement it has been determined necessary to revise the park boundary to include an additional 100.55 acres. This includes the Old Highway 85 right-of-way (66.29 acres), the 29.26-acre parcel located west of the old highway, and an additional 5.00 acres owned by the State of New Mexico located adjacent to the old highway.

Therefore, notice is hereby given that in accordance with the Land and Water Conservation Fund Act, as amended, the boundary of Pecos National Historical Park should be revised as described above. The revised boundary is depicted on a map entitled "Boundary Map, Pecos National Historical Park," Drawing No. 430/80,043, and dated September 1993. This map is on file and available for inspection in the Office of the National Park Service, Department of the Interior; the Office of the Southwest Region, National Park Service; and the Office of the Superintendent, Pecos National Historical Park.

Dated: January 26, 1994

Mary R. Bradford,

Acting Regional Director, Southwest Region.

[FR Doc. 94–3542 Filed 2–15–94; 8:45 am]

BILLING CODE 4310–70–P

General Management Plan, Development Concept Plan, and Final Environmental Impact Statement; Natchez National Historical Park, MS

AGENCY: National Park Service; Interior.

ACTION: Notice of availability of General Management Plan/Development Concept Plan/Final Environmental Impact Statement, Natchez National Historical Park, Mississippi.

SUMMARY: Pursuant to Council on Environmental Quality Regulations and National Park Service Policy, the National Park Service (NPS) announces the release of the General Management Plan/Development Concept Plan/Final Environmental Impact Statement (GMP/DCP/FEIS) for Natchez National Historical Park, Mississippi.

DATES: The GMP/DCP/FEIS will be on public review until March 21, 1994. Any review comments must be postmarked no later than March 21, 1994, and addressed to the Regional Director, Southeast Region, National Park Service, 75 Spring Street, SW, Atlanta, Georgia 30303.

FOR FURTHER INFORMATION CONTACT: Superintendent, Natchez National Historical Park, P.O. Box 1208, Natchez, Mississippi 39121, Telephone: (601) 442–7047.

SUPPLEMENTARY INFORMATION: The GMP/DCP/FEIS presents three alternatives for future management and use of Natchez National Historical Park. The draft plan went on public review in May/June 1993. This final plan incorporates comments made during that public review.

Copies of the GMP/DCP/FEIS are available for review at the Regional Office in Atlanta and at the park. Copies of the GMP/DCP/FEIS may be obtained from the Superintendent at the above address.

Dated: February 9, 1994.

James W. Coleman, Jr.,

Regional Director, Southeast Region.

[FR Doc. 94–3543 Filed 2–15–94; 8:45 am]

BILLING CODE 4310–70–M

Delta Region Preservation Commission; Meeting

Notice is hereby given in accordance with the Federal Advisory Committee Act that a meeting of the Delta Region Preservation Commission will be held at 7 p.m., on Wednesday, March 16, 1994, in the Environmental Education Center, Barataria Preserve Unit, Jean Lafitte National Historical Park and Preserve, 7400 Highway 45, Marrero, Louisiana.

The Delta Region Preservation Commission was established pursuant to section 907 of Public Law 95–625 (16 U.S.C. 230f), as amended, to advise the Secretary of the Interior in the selection of sites for inclusion in Jean Lafitte National Historical Park and Preserve, and in the implementation and development of a general management plan and of a comprehensive interpretive program of the natural, historic, and cultural resources of the Region.

The matters to be discussed at this meeting include:

—General Park Update
—Lake Salvado Erosion Barrier
—General Management Plan
—Natural Resources Protection Program
—Proposed Wildlife and Recreation Zone
—Nutria Populations
—Old Business
—New Business

The meeting will be open to the public. However, facilities and space for accommodating members of the public are limited, and persons will be accommodated on a first-come-first-served basis. Any member of the public may file a written statement concerning the matters to be discussed with the Superintendent, Jean Lafitte National Historical Park and Preserve.

Persons wishing further information concerning this meeting, or who wish to submit written statements may contact Robert Belous, Superintendent, Jean Lafitte National Historical Park and Preserve, 365 Canal Street, suite 3080, New Orleans, Louisiana 70130, Telephone 504/589–3882.

Minutes of the meeting will be available for public inspection four weeks after the meeting at the office of Jean Lafitte National Historical Park and Preserve.

Dated: February 2, 1994.

John E. Cook,

Regional Director, Southwest Region.

[FR Doc. 94–3544 Filed 2–15–94; 8:45 am]

BILLING CODE 4310–70–M

National Park System Advisory Board; Meeting

AGENCY: National Park Service, Department of the Interior.

ACTION: Notice of meeting of National Park System Advisory Board.

Notice is hereby given in accordance with the Federal Advisory Committee Act, 5 U.S.C. Appendix, that a meeting of the National Park System Advisory Board will be held on Sunday, March 6, 1994, at The Williamsburg Hospitality House, 415 Richmond Road, Williamsburg, Virginia. The general business meeting will start at 8 a.m., continuing until about 5 p.m.

After opening remarks by various National Park Service speakers, the Board will receive an interim report from its Land and Water Conservation Fund Review Committee, which is scheduled to provide a final report in August 1994. By mid-morning, the Board's Natural Areas Committee is to bring recommendations before the Board regarding a Special Resource Study of the Ka Iwi area of Oahu, Hawaii. The Board's History Areas Committee will next present recommendations regarding a Special Resource Study of New Bedford, Massachusetts, then a number of National Historic Landmark nominations and related topics for consideration. Later in the day, the Board's Historic Preservation Performance Review Committee will propose recommendations for deliberation and adoption by the Board, as will the Board's Humanities Committee. Other miscellaneous topics and reports may also be covered. The order of the agenda may be changed, if necessary, to accommodate travel schedules or for other reasons.

The business meeting will be open to the public. Space and facilities to accommodate members of the public are limited and persons will be accommodated on a first-come, first-served basis. Anyone may file with the Board a written statement concerning matters to be discussed. The Chairman may also permit attendees to address the Board, but may restrict the length of presentations as necessary to allow the Board to complete its agenda within the allotted time.

Persons wishing further information concerning the meeting, or who wish to submit written statements, may contact Mr. David L. Jervis, Office of Policy, National Park Service, P.O. Box 37127, Washington, DC 20013-7127 (telephone 202-208-4030). More specific information on potential National Historic Landmarks may be obtained from Senior Historian Benjamin Levy (History Division, telephone 202-343-8164) at the same P.O. Box address.

Draft minutes of the meeting will be available for public inspection about 12 weeks after the meeting, in room 1220, Main Interior Building, 1849 C Street NW., Washington, DC.

John J. Reynolds,

Deputy Director.

[FR Doc. 94-3545 Filed 2-15-94; 8:45 am]

BILLING CODE 4310-70-P

INTERSTATE COMMERCE COMMISSION

[Docket No. AB-32 (Sub-No. 59X)]

Boston and Maine Corporation; Abandonment Exemption—Middlesex County, MA

[Docket No. AB-355 (Sub-No. 11X)]

Springfield Terminal Railway Company—Discontinuance of Service Exemption; Middlesex County, MA

Boston and Maine Corporation (B&M) and Springfield Terminal Railway Company (ST) filed a notice of exemption under 49 CFR part 1152 Subpart F—Exempt Abandonments and Discontinuances to abandon and discontinue service over a segment of B&M's rail line known as the Lowell Secondary Track, between milepost 24.27 and milepost 25.01, a distance of approximately 0.74 miles, in Lowell, Middlesex County, MA. B&M seeks authority to abandon the line, and ST, which leases the line from B&M, seeks authority to discontinue service over the line.

B&M and ST certify that: (1) No local traffic has moved over the line for at least 2 years; (2) overhead traffic, if any, has been rerouted over other lines; (3) no formal complaint filed by a user of rail service on the line (or by a state or local government entity acting on behalf of such user) regarding cessation of service over the line either is pending with the Commission or with any U.S. District Court or has been decided in favor of the complainant within the 2-year period; and (4) the requirements at 49 CFR 1105.7 (environmental reports), 49 CFR 1105.8 (historic reports), 49 CFR 1105.11 (transmittal letter), 49 CFR 1105.12 (newspaper publication),[1] and 49 CFR 1152.50(d)(1) (notice to governmental agencies) have been met.

As a condition to use of this exemption, any employee adversely affected by the abandonment or discontinuance shall be protected under *Oregon Short Line R. Co.—Abandonment—Goshen*, 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10505(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA) has been received, this exemption will be effective on March 18, 1994, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues,[2] formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2),[3] and trail use/rail banking requests under 49 CFR 1152.29[4] must be filed by February 28, 1994. Petitions to reopen or requests for public use conditions under 49 CFR 1152.28 must be filed by March 8, 1994, with: Office of the Secretary, Case Control Branch, Interstate Commerce Commission, Washington, DC 20423.

A copy of any pleading filed with the Commission should be sent to applicants' representative: Kevin J. O'Connell, Esq., Law Department, Iron Horse Park, North Billerica, MA 01862.

If the notice of exemption contains false or misleading information, the exemption is void *ab initio*.

B&M and ST have filed an environmental report which addresses the effect, if any, of the abandonment and the discontinuance on the environmental and historic resources. The Section of Environmental Analysis (SEA) will issue an environmental assessment (EA) by February 18, 1994. Interested persons may obtain a copy of the EA by writing to SEA (room 3219, Interstate Commerce Commission, Washington, DC 20423) or by calling Elaine Kaiser, Chief of SEA, at (202) 927-6248. Comments on environmental and historic preservation matters must be filed within 15 days after the EA is available to the public.

Environmental, historic preservation, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Decided: February 3, 1994.

[1] B&M and ST certify that they have met the newspaper publication requirement of 49 CFR 1105.7(c). The substance of the publication and certification required by that section for environmental reports is the same as that set forth at 49 CFR 1105.12.

[2] A stay will be issued routinely by the Commission in those proceedings where an informed decision on environmental issues (whether raised by a party or by the Commission's Section of Energy and Environment in its independent investigation) cannot be made before the effective date of the notice of exemption. See *Exemption of Out-of-Service Rail Lines*, 5 I.C.C.2d 377 (1989). Any entity seeking a stay involving environmental concerns is encouraged to file its request as soon as possible in order to permit this Commission to review and act on the request before the effective date of this exemption.

[3] See *Exempt. of Rail Abandonment—Offers of Finan. Assist.*, 4 I.C.C.2d 164 (1987).

[4] The Commission will accept a late-filed trail use request as long as it retains jurisdiction to do so.

By the Commission, David M. Konschnik, Director, Office of Proceedings.

Sidney L. Strickland, Jr.,

Secretary.

[FR Doc. 94–3595 Filed 2–15–94; 8:45 am]

BILLING CODE 7035–01–P

NUCLEAR REGULATORY COMMISSION

Biweekly Notice

Applications and Amendments to Facility Operating LicensesInvolving No Significant Hazards Considerations

I. Background

Pursuant to Public Law 97-415, the U.S. Nuclear Regulatory Commission (the Commission or NRC staff) is publishing this regular biweekly notice. Public Law 97-415 revised section 189 of the Atomic Energy Act of 1954, as amended (the Act), to require the Commission to publish notice of any amendments issued, or proposed to be issued, under a new provision of section 189 of the Act. This provision grants the Commission the authority to issue and make immediately effective any amendment to an operating license upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person.

This biweekly notice includes all notices of amendments issued, or proposed to be issued from January 22, 1994, through February 4, 1994. The last biweekly notice was published on February 2, 1994 (59 FR 4933).Notice Of Consideration Of Issuance Of Amendments To Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, And Opportunity For A Hearing

The Commission has made a proposed determination that the following amendment requests involve no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The basis for this proposed determination for each amendment request is shown below.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received before action is taken. Should the Commission take this action, it will publish in the **Federal Register** a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this **Federal Register** notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555. The filing of requests for a hearing and petitions for leave to intervene is discussed below.

By March 18, 1994, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license 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 written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition 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. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room for the particular facility involved. If a request for a 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 a 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 in the proceeding 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 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 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. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the

amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. 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.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington DC 20555, by the above date. Where petitions are filed during the last 10 days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to **(Project Director):** petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this **Federal Register** notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for a hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document room for the particular facility involved.

Commonwealth Edison Company, Docket Nos. 50-373 and 50-374, LaSalle County Station, Units 1 and 2, LaSalle County, Illinois

Date of amendment request: January 24, 1994

Description of amendment request: The proposed amendment would implement Line Item 5.9 of NRC Generic Letter 93-05, "Line Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation," which recommends licensees consider deleting the requirements to perform response time testing for selected instrumentation in the isolation system where the required time corresponds to the diesel start time.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

LaSalle has evaluated the proposed Technical Specification Amendment. Based upon the criteria for defining a Significant Hazards Consideration established in 10 CFR 50.92(c), operation of LaSalle County Station in accordance with the proposed amendment will not:

1) Involve a significant increase in the probability or consequences of an accident previously evaluated because:

The proposal seeks to eliminate response time testing requirements for selected instrumentation in the isolation system. The proposal does not introduce changes in the response times themselves. The probability and consequences of an accident previously evaluated are not increased because accepted licensing criteria are maintained. The requirements for channel checks, functional tests, calibrations, and logic system functional tests are not altered by this proposal. The ability to detect degrading trends of response times is available via the above Technical Specification required tests. Therefore, the response times of these systems will be maintained within the acceptance limits assumed in plant safety analyses and required for successful mitigation of an initiating event because of the continued Technical Specification testing.

2) Create the possibility of a new or different kind of accident from any accident previously evaluated because:

The proposal does not change component or system interactions. Accident analyses assume a loss of AC power which is restored by startup of emergency diesel generators. The 13 second interval associated with the restoration of AC power, which establishes the response time for the isolation functions, is maintained. The starting, sequencing, and loading functions associated with the diesel generators is not affected by the proposed change. The response times include the instrument response times, which are typically measured in fractions of a second, and the response times of the actuation logic circuits, which are typically less than a second. These times are small in comparison to the diesel generator start time (13 seconds). The ability of the isolation system to perform its intended function to mitigate the consequences of an initiating event within the acceptance limits assumed in plant safety analyses is not altered by the proposed change.

3) Involve a significant reduction in a margin of safety because:

The proposal does not involve the relaxation of any criteria identified in the SAR or reduce any of the requirements of Technical Specifications. The proposed revision does not affect licensing acceptance limits associated with accidents. With the exception of MSIVs, the safety analyses do not address individual sensor response times or the response times of the logic systems to which the sensors are connected. These analyses conservatively establish the margin of safety. Deleting the requirement to perform unnecessary response time testing does not affect the results of accident and transient analyses. Plant and system response to an initiating event will remain in compliance within the assumptions of safety analyses.

The proposed change does not increase the probability or consequences of an accident, and there is no impact on equipment important to safety or systems, structures or components. There is no associated change to the type, amount, or control of radioactive effluents, nor is there an associated increase in individual or cumulative occupational radiation exposure. There is no effect upon the capabilities of the associated systems to perform their intended functions within the allowed response times assumed in safety analyses. Therefore, the margin of safety is preserved.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Public Library of Illinois Valley Community College, Rural Route No. 1, Ogelsby, Illinois 61348

Attorney for licensee: Michael I. Miller, Esquire; Sidley and Austin, One

First National Plaza, Chicago, Illinois 60690

NRC Project Director: James E. Dyer

Connecticut Yankee Atomic Power Company, Docket No. 50-213, Haddam Neck Plant, Middlesex County, Connecticut

Date of amendment request: January 17, 1994

Description of amendment request: Connecticut Yankee Atomic Power Company (CYAPCO) proposes to remove Technical Specification 3/4.4.12, "Failed Fuel Rods" and its associated BASES Section 3/4.4.12.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration (SHC), which is presented below:

The proposed changes do not involve an SHC consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

A review of the accidents detailed in the Updated Final Safety Analysis Report, Chapter 15, was undertaken to determine if they were impacted by the proposed change. The review indicated that the previously evaluated accidents were not impacted by the proposed license amendment.

All fuel design and performance criteria are the same for Cycle 18 as in previous cycles. All criteria will continue to be met and no new single-failure mechanisms will be created. This change does not involve any alterations to plant equipment or procedures which would affect any operational modes or accident assumptions. This proposed license amendment does delete a technical specification that is no longer considered necessary. This deletion is prompted by the replacement of stainless steel clad fuel with zircaloy clad fuel. The zircaloy clad fuel, if it experiences damage, will release iodine into the primary system. Any iodine released is covered within the guidelines specified in the existing Technical Specification 3/4.4.8, "Specific Activity." This specification will ensure that operation does not continue with radiochemistry values that exceed those assumed in our accident assumptions. The existing Technical Specification of specific activity along with the zircaloy clad fuel will ensure that a significant increase in the probability or consequences of an accident previously evaluated is not present.

2. Create the possibility of a new or different kind of accident from any previously analyzed.

The possibility of an accident or malfunction of a different type than any evaluated previously in the UFSAR [Updated Final Safety Analysis Report] is not created. Since there are no changes in the way the plant is operated, the potential for an unanalyzed accident is not created. No new failure modes are introduced.

The presence of defective fuel rods and the resultant iodine release would only affect potential offsite doses. This proposed license amendment does not increase the radiochemistry limits, but does revert the technical specifications back to the standard methodology and limitations that were unable to be used because of the stainless steel clad fuel. These new limitations will continue to ensure that doses remain within the limits prescribed.

3. Involve a significant reduction in a margin of safety.

The proposed changes do not have any adverse impact on the protective boundaries. The margin of safety, as defined in the basis for any technical specification, is not reduced. The proposed changes do not adversely impact any of the safety systems, nor do they increase the number of challenges to the safety systems.

The limit of 160 defective rods was chosen to be consistent with initial conditions assumed for the radiological design basis. The elimination of this specification is acceptable since the basis for the initial condition can be supported by the use of zircaloy clad fuel as opposed to the unique stainless steel clad. If future fuel defects are debris induced, the dose equivalent iodine will be within expected radiochemistry values and the resulting doses will be bounded. Therefore, there is no reduction in the margin of safety as defined in the basis of any technical specification with the deletion of the defective fuel rod technical specification.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Russell Library, 123 Broad Street, Middletown, Connecticut 06457.

Attorney for licensee: Gerald Garfield, Esquire, Day, Berry & Howard, Counselors at Law, City Place, Hartford, Connecticut 06103-3499.

NRC Project Director: John F. Stolz

Consolidated Edison Company of New York, Docket No. 50-247, Indian Point Nuclear Generating Unit No. 2, Westchester County, New York

Date of amendment request: December 6, 1993

Description of amendment request: The proposed amendment request would revise the Technical Specifications (TSs) to provide a temporary one-time revision to the Definition Section of the TS. Specifically, a footnote is added in the Definition Section of the TS which is applicable to TS 1.2.1, "Cold Shutdown Condition," changing T_{avg} less than or equal to 200°F to less than or equal to 250°F and TS 1.2.2, "Hot Shutdown Condition," changing T_{avg} greater than 200°F to greater than 250°F. The footnote further states that the change is for the one time, fuel out, chemical decontamination program. This program is currently scheduled for the upcoming 1995 refueling outage of the Indian Point Nuclear Generating Unit 2.

Basis for proposed no significant hazards consideration determination As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

The proposed change does not involve a significant hazards consideration since:

1. There is no significant increase in the probability or consequences of an accident.

Approval of the proposed one time change to the Technical Specification definition of cold shutdown for purposes of performing the full RCS [reactor coolant system] chemical decontamination without fuel in the reactor would provide relief from unnecessary technical specification action statements that are based on fuel in the reactor. Credible accidents with significant consequences are practically eliminated with the removal of the reactor fuel during the performance of the FSD [full reactor coolant system chemical decontamination]. In addition, specific actions would be taken in accordance with the requirements of the NRC approved WCAP-12932-A Rev 2 to ensure that RCS and affected interfacing systems integrity are preserved. Thus, system capability within established accident scenarios would not be compromised. The proposed amendment would therefore not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The possibility of a new or different kind of accident from any previously analyzed has not been created.

As noted above, the proposed amendment seeks to eliminate unnecessary Technical Specification action requirements during the performance of full RCS chemical decontamination. These actions are unnecessary because there will be no fuel in the reactor and the RCS and other affected systems will be operated under conditions well within their design capability during the implementation of this process. In addition, the FSD effort will be conducted in accordance with the requirement(s) of the NRC approved Westinghouse topical report WCAP-12932-A Rev. 2. Accidents involving failures of the decontamination process system will not exceed the bounding conditions for any previously established accidents involving failure of a radwaste system. Accordingly, the possibility of a new or different kind of accident from any previously analyzed will not be created.

3. There has been no reduction in the margin of safety.

The proposed amendment provides relief from technical specification actions in the performance of the FSD which become unnecessary when there is no fuel in the reactor. The change will not adversely impact any Technical Specification required systems, structures or components. The design capability of systems, structures or

components impacted will not be reduced. Consequently, no significant reduction in the margin of safety for any system, structure, or component is involved.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: White Plains Public Library, 100 Martine Avenue, White Plains, New York 10610.

Attorney for licensee: Brent L. Brandenburg, Esq., 4 Irving Place, New York, New York 10003.

NRC Project Director: Robert A. Capra

Duke Power Company, et al., Docket Nos. 50-413 and 50-414, Catawba Nuclear Station, Units 1 and 2, York County, South Carolina

Date of amendment request: January 18, 1994

Description of amendment request: The proposed amendments remove the tables of containment penetration conductor overcurrent protective devices from the Technical Specifications (TS) in accordance with the guidance contained in Generic Letter 91-08, "Removal of Component Lists from Technical Specifications." The tables would be relocated to Chapter 16 of the Catawba Final Safety Analysis Report (Selected Licensee Commitments Manual). In addition, the licensee proposes the removal of an obsolete footnote to TS 4.8.4. The footnote, which made TS 4.8.4.a initially effective following the first refueling outage of Unit 1, is no longer needed.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

Criterion 1

The requested amendments will not involve a significant increase in the probability or consequences of an accident previously evaluated. Relocating the component lists of containment penetration conductor overcurrent protective devices from the technical specifications to the [Selected Licensee Commitments] SLC Manual (with all attendant required technical specification changes as described previously and also including removal of the above described obsolete footnote) has no impact upon either the probability or consequences of any accident. No plant equipment is affected by the proposed change. No equipment is being added or deleted from the lists; only the source document for the lists is being changed. Any future changes to the lists (i.e., changes to the plant) will be subject to the provisions of 10CFR50.59 and also subject to the change control provisions of Chapter 6 of Catawba's Technical Specifications.

Criterion 2

The requested amendments will not create the possibility of a new or different kind of accident from any accident previously evaluated. No accident causal mechanisms are affected by the proposed change, as no change to the plant is being proposed. In addition, no change to the manner in which the plant is operated is being made. Finally, no changes to plant procedures are being made which would affect any accident causal mechanisms.

Criterion 3

The requested amendments will not involve a significant reduction in a margin of safety. The proposed change has no impact upon any safety margin. The proposed change is consistent with the guidance provided in Generic Letter 91-08 and the control provisions utilized as a result of relocating the subject component lists are at least as stringent as those set forth in the generic letter.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: York County Library, 138 East Black Street, Rock Hill, South Carolina 29730

Attorney for licensee: Mr. Albert Carr, Duke Power Company, 422 South Church Street, Charlotte, North Carolina 28242

NRC Project Director: Loren R. Plisco, Acting

Duke Power Company, Docket No. 50-413, Catawba Nuclear Station, Unit No. 1, York County, South Carolina

Date of amendment request: January 10, 1994

Description of amendment request: The proposed amendment would revise Technical Specifications 2.0 and 3/4.2 which currently requires the determination of the reactor coolant system flow rate by precision heat balance measurement at least once per 18 months. Date of publication of individual notice in Federal Register: January 26, 1994 (59 FR 3743)

Expiration date of individual notice: February 25, 1994

Local Public Document Room location: York County Library, 138 East Black Street, Rock Hill, South Carolina 29730

Duke Power Company, Docket Nos. 50-369 and 50-370, McGuire Nuclear Station, Units 1 and 2, Mecklenburg County, North Carolina

Date of amendment request: January 10, 1994

Description of amendment request: The amendments would change the method of measuring the reactor coolant system flow rate (Technical Specifications 2.0 and 3/4.2) during the 18-month surveillance for McGuire, Units 1 and 2.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

(1) This amendment will not significantly increase the probability or consequence of any accident previously evaluated.

No component modification, system realignment, or change in operating procedure will occur which could affect the probability of any accident or transient. The change in method of flow measurement will not change the probability of actuation of any Engineered Safeguard Feature or other device. The actual flow rate will not change. The consequences of previously-analyzed accidents will not change as a result of the new method of flow measurement.

(2) This amendment will not create the possibility of any new or different accidents not previously evaluated.

No component modification or system realignment will occur which could create the possibility of a new event not previously considered. The elbow taps are already in place, and are used to monitor flow for the Reactor Protection System. They will not initiate any new events.

(3) This amendment will not involve a significant reduction in a margin of safety.

As described in [the licensee's application], the change in method of RCS flow measurement will provide a more accurate indication of the flow. The actual flow rate will not be affected. The revised setpoints for low reactor coolant flow are driven by changes to statistical allowances and do not represent substantive, or less conservative, changes. There is no significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Astkins Library, University of

North Carolina, Charlotte (UNCC Station), North Carolina 28223

Attorney for licensee: Mr. Albert Carr, Duke Power Company, 422 South Church Street, Charlotte, North Carolina 28242

NRC Project Director: Loren R. Plisco, Acting

Entergy Operations Inc., Docket No. 50-382, Waterford Steam ElectricStation, Unit 3, St. Charles Parish, Louisiana

Date of amendment request: December 23, 1993

Description of amendment request: The proposed amendment would revise the Technical Specification (TS) for the following four items in accordance with the guidance in Generic Letter (GL) 93-05 "Line Item Technical Specifications Improvements To Reduce Surveillance Requirements For Testing During Power Operation".1) GL Item 5.14 Radiation Monitors will change the channel functional test from monthly to quarterly.2) GL Item 6.1 Reactor Coolant System (RCS) Isolation Valves will increase the time from 72 hours to 7 days for remaining in cold shutdown without leak testing the RCS isolation valves.3) GL Item 6.6 Pressurizer Heaters will change the verification of capacity from at least once per 92 days to each refueling outage and will change the demonstration of the emergency power supply from at least once per 18 months to at each refueling outage.4) GL Item 9.1 Auxiliary Feedwater Pump and System Testing will change the frequency of these pumps from once per 31 days on a staggered basis to quarterly on a staggered bases.

All of the above are compatible with Waterford 3 plant operating experience and are consistent with NUREG-1366, "Improvement To Technical Specification Surveillance Requirements," December 1992 and the licensing basis for Waterford 3.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

The proposed change to increase the radiation monitoring instrumentation channel functional test from monthly to quarterly will have no effect on design basis accidents. The findings in NUREG-1366 determined that this change will increase the availability of radiation monitors.

The proposed change to increase the 72 hour time for remaining in cold shutdown without leak testing the RCS isolation valves to 7 days will not affect any design basis accidents. NUREG-1366 findings have determined that extending this interval does not significantly alter the associated risk. In addition, the current requirement has a potential for causing problems resulting from a hurried recovery.

The proposed change to the pressurizer heater capacity test interval from quarterly to each refueling interval will have no affect on any design basis accidents. The TS requires at least 2 groups of pressurizer heaters each having a nominal capacity of 150 kW. Waterford 3 has 8 groups of pressurizer heaters; two proportional groups of 150 kW each, and 6 backup groups of 200 kW each. An evaluation of past operating experience has shown the availability of at least 6 groups of pressurizer heaters with a minimum of 150 kW each.

The proposed change to extend the testing interval for the EFW [emergency feedwater] pumps will have no affect on any design basis accidents. The pumps will continue to be tested quarterly to the same standards applied to safety related pumps as defined by the ASME [American Society of Mechanical Engineers] Section XI Code. Satisfactory completion of testing in accordance with the Code is accepted as verification that safety related pumps will be available to perform their intended function.

The proposed changes identified above are supported by the findings identified in NUREG-1366 and consistent with the guidance provided in Generic Letter 93-05. These line-item improvements are intended to improve plant safety, decrease equipment degradation, and remove unnecessary burden on personnel resources by reducing the amount of testing that the TS require during power operation. Therefore, the proposed changes identified above will not involve a significant increase in the probability or consequences of any accident previously evaluated.

The changes identified above only affect the frequency of surveillance testing. There are no changes that will alter operation of the plant or the manner in which it is operated. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes identified herein extend testing frequency in an effort to improve plant reliability and safety. The proposed changes are consistent with the findings in NUREG-1366, guidance in Generic Letter 93-05 and plant operating experience. As such, the proposed changes will preserve the established margin of safety for the affected specifications. Therefore, the proposed changes will not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: University of New Orleans Library, Louisiana Collection, Lakefront, New Orleans, Louisiana 70122

Attorney for licensee: N. S. Reynolds, Esq., Winston & Strawn 1400 L Street NW., Washington, D.C. 20005-3502

NRC Project Director: William D. Beckner

Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, City of Dalton, Georgia, Docket Nos. 50-424 and 50-425, Vogtle Electric Generating Plant, Units 1 and 2, Burke County, Georgia

Date of amendment request: November 19, 1993

Description of amendment request: The proposed change would relocate the requirements of Technical Specification 3/4.3.4, Turbine Overspeed Protection, to Section 16.3 of the Vogtle Electric Generating Plant, Units 1 and 2, Final Safety Analysis Report.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change involves the relocation of the TS [Technical Specification] requirements for the turbine overspeed protection system to the VEGP [Vogtle Electric Generating Plant] FSAR [Final Safety Analysis Report]. The requirements that will reside in the FSAR will continue to ensure that the probability of turbine missile generation is maintained below NRC limits as defined in NUREG-1048, Appendix U. Since the turbine overspeed protection system will remain capable of protecting the turbine from excessive overspeed, the proposed change will have no effect on the consequences of an accident previously evaluated.

2. The proposed change will not create the possibility of a new or different kind of accident than any previously evaluated. The proposed change does not involve any change to the configuration or method of operation of any plant equipment, and no new failure modes have been defined for any plant system or component. In addition, no new limiting failures have been identified as a result of the proposed change. The requirements for the turbine overspeed protection system that will reside in the FSAR will ensure that the system remains capable of protecting the turbine from excessive overspeed. Therefore, the proposed change will not create the possibility of a new or different kind of accident than any previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety. The proposed change would allow the requirements for the turbine overspeed protection system to be relocated to the FSAR on the basis that the turbine overspeed protection system does not meet the criteria of the NRC Final Policy Statement on Technical Specifications Improvements for

Nuclear Reactors. The requirements that will reside in the FSAR for the turbine overspeed protection system will ensure that the system remains capable of protecting the turbine from excessive overspeed. Therefore, the proposed change will not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Burke County Public Library, 412 Fourth Street, Waynesboro, Georgia 30830.

Attorney for licensee: Mr. Arthur H. Domby, Troutman Sanders, NationsBank Plaza, Suite 5200, 600 Peachtree Street, NE., Atlanta, Georgia 30308

NRC Project Director: Loren R. Plisco, Acting

Houston Lighting & Power Company, City Public Service Board of San Antonio, Central Power and Light Company, City of Austin, Texas, Docket No. 50-499 South Texas Project, Unit 2, Matagorda County, Texas

Date of amendment request: January 25, 1994

Description of amendment request: The licensee proposes to make a one-time change to the technical specifications to add new Technical Specifications 3/4.10.6 and 3/4.10.7 to the Special Test Exemptions section. The new TS would allow the restart of Unit 2 with expired calibrations on the core exit thermocouples (CET) and the reactor coolant system (RCS) resistance temperature detectors (RTD). This amendment will also add a new Technical Specification to allow the ascension to 75 percent rated thermal power with an expired precision heat balance reactor coolant flow measurement.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

(1)The proposed change does not involve a significant increase in the probability or consequences of a previously evaluated accident.

The proposed change will allow the restart of [STP] Unit 2 with Core Exit Thermocouples and Reactor Coolant System Resistance Temperature Detectors technically inoperable due to expired calibrations. The calibrations of these instruments can only be completed when the Unit reaches Normal Operating Pressure and Normal Operating Temperature in Mode 3. Once the calibrations of these instruments are completed, this one time change will expire and all of the existing applicable Limiting Conditions for Operations will become effective immediately. Since industry and South Texas Project Electric Generating Station experience has shown that the failure mechanism for these types of instrument is complete failure as opposed to a gradual drift, and there will be calibration points to compare RTD readings to actual RCS temperature as the RCS temperature increases, it is reasonable to expect these CETs/RTDs will function as they did before their calibrations expired. For this reason, all applicable functions, including COMS, T_{hot}, T_{cold}, and T_{avg} are expected to operate normally. Because normal operation of the instruments is expected and the only reason for the instruments being declared inoperable is their expired calibrations, this change does not involve a significant increase in the probability or consequence of an accident previously evaluated.

The proposed change will also allow the restart of Unit 2 with the precision heat balance RCS flow measurement surveillance expired. This surveillance is used to confirm the values indicated by the RCS flow meters. These instruments are calibrated every 18 months and the RCS flow meters will be checked every 12 hours to ensure adequate flow prior to the completion of the precision heat balance RCS flow measurement. Since this surveillance is only used to confirm the reading of calibrated instruments and does not involve any changes to the design or function of the instruments, this change does not involve a significant increase in the probability or consequence of an accident previously evaluated.

(2) The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

The operations of Unit 2 with the CETs and RCS RTDs technically inoperable due to expired calibrations, until these calibrations can be completed in Mode 3, does not affect the design bases of the CETs and RCS RTDs or any of the accident evaluations involving these instruments. Since industry and South Texas Project Electric Generating Station experience indicates that the failure mechanism for these types of instruments is not a gradual drift but complete failure, the reasonable expectation is the CETs/RTDs will function as they did prior to their calibrations expiring.

Additionally, the operation of Unit 2 with the precision heat balance RCS flow measurement surveillance expired does not affect the design bases of the RCS flow meters or any of the accident evaluations involving these instruments. This surveillance is used to confirm the values indicated by the RCS flow meters. These instruments are calibrated every 18 months and the RCS flow meters will be checked every 12 hours to ensure adequate flow prior to the completion of the precision heat balance RCS flow measurement.

Because normal operation of all of these instruments is expected, these changes do not create the possibility of a new or different kind of accident from any previously evaluated.

(3) The proposed change does not involve a significant reduction in the margin of safety.

The RCS RTDs are auctioneered to prevent a failed high or low instrument from adversely influencing the safety of the plant. This feature is still operable and will, along with normal operator activities, provide assurance that the margin of safety is not reduced by this change. In addition, the change does not affect the design bases, accident analysis, reliability or capability of the CETs/RTDs to perform their intended safety functions. The RCS flow meters will be checked every 12 hours to ensure adequate flow prior to the completion of the precision heat balance RCS flow measurement.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the request for amendment involves no significant hazards consideration.Local Public Document Location: Wharton County Junior College, J.M. Hodges Learning Center, 911 Boling Highway, Wharton, Texas 77488

Attorney for licensee: Jack R. Newman, Esq., Newman & Holtzinger, P.C., 1615 L Street, NW, Washington, DC 20036

NRC Project Director: Suzanne C. Black

Nebraska Public Power District, Docket No. 50-298, Cooper Nuclear Station, Nemaha County, Nebraska

Date of amendment request: September 28, 1993

Description of amendment request: The proposed amendment would revise the Cooper Nuclear Station (CNS) Technical Specifications to modify the licensee's organizational structure by removing the positions of "Site Manager" and "Senior Manager of Operations." The functions presently given in CNS Technical Specifications for the Site Manager position will be assumed by the Vice President - Nuclear.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Evaluation

The proposed change removing the positions of Site Manager and Senior Manager of Operations from the Technical Specifications is administrative in nature. The functions and responsibilities of the previous position of Site Manager presently given in the plant Technical Specifications will be performed by the Vice President -

Nuclear. Additionally, with the reorganization, the Senior Manager of Operations position is eliminated and therefore, this position is also being removed. The provision in the Technical Specifications for automatic shifting of Plant Manager responsibilities to the Senior Manager of Operations has also been removed. The shifting of Plant Manager responsibilities (in writing) to one of the Managers at CNS who is qualified for this position remains in the Technical Specifications. The position removals and responsibility transfers in the organization do not affect plant design or operation, nor do they affect the way any systems, structures, or components are operated or maintained. The individual filling the position "Vice President - Nuclear" is qualified to perform the assigned tasks and responsibilities. Restructuring of the sentence in specification 6.2.B.6, is purely an administrative change. Also, this proposed change does not alter the conditions or assumptions in any of the Updated Safety Analysis Report (USAR) accident analyses. Since the USAR accident analyses remain bounding, the consequences previously evaluated are not adversely affected by the proposed change. Therefore, it can be concluded that the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed License Amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Evaluation

The proposed Technical Specification revision removes all references to the position title of the Site Manager. The responsibilities of this position presently given in the Technical Specifications are being incorporated and performed by the position "Vice President - Nuclear." Additionally, with the reorganization, the Senior Manager of Operations position is eliminated and therefore, this position is also being removed. The shifting of Plant Manager responsibilities (in writing) to one of the Managers at CNS who is qualified for this position remains in the Technical Specifications. All given management activities will continue to be performed by qualified individuals. Restructuring of the sentence in specification 6.2.B.6 is purely an administrative change. This change does not affect the design or operation of any system, structure, or component in the plant, and is considered to be an administrative change. Accordingly, no new failure modes have been defined for any plant system or component important to safety, nor has any new limiting failure been identified as a result of the proposed change. Therefore, this proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in the margin of safety?

Evaluation

This proposed amendment involves a change to the Administrative Controls Section of the CNS Technical Specifications; specifically, removal of two positions referenced in the organizational structure. The Site Manager position is being deleted and the responsibilities of this position listed in the Technical Specifications are being performed by the Vice President - Nuclear. Additionally, with the reorganization, the Senior Manager of Operations position is eliminated and therefore, this position and responsibilities are also being removed. The shifting of Plant Manager responsibilities (in writing) to one of the Managers at CNS who is qualified for this position remains in the Technical Specifications. All given management activities, as described in the Technical Specifications, will continue to be performed by qualified individuals. Restructuring of the sentence in specification 6.2.B.6, is purely an administrative change. The proposed change does not adversely impact the plant's ability to meet applicable regulatory requirements. The proposed change does not alter any means of plant operation, nor does the proposed change involve any physical alterations to the plant and does not affect any plant safety parameters or setpoints. Therefore, this proposed change does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Asuburn Public Library, 118 15th Street, Auburn, Nebraska 68305

Attorney for licensee: Mr. G. D. Watson, Nebraska Public Power District, Post Office Box 499, Columbus, Nebraska 68602-0499

NRC Project Director: William D. Beckner

Nebraska Public Power District, Docket No. 50-298, Cooper Nuclear Station, Nemaha County, Nebraska

Date of amendment request: December 10, 1993

Description of amendment request: The proposed amendment would revise the Cooper Nuclear Station (CNS) Technical Specifications Sections 3/4.21 "Environmental/Radiological Effluents," and 6.5, "Station Reporting Requirements," to change the frequency of the reporting period of the "Semiannual Radioactive Materials Release Report" from semiannual to annual and to extend the reporting frequency of the Annual Design Change Report from an annual submittal to annually or along with the Updated Safety Analysis Report (USAR) updates required by 10 CFR 50.71(e). These proposed changes are intended to make the CNS Technical Specifications consistent with the current provisions of 10 CFR 50.36(a) and 10 CFR 50.59(b), respectively.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Evaluation

The proposed changes are administrative in nature and makes the Cooper Nuclear Station (CNS) Technical Specifications (T/S) consistent with amended regulations of 10CFR50.36(a), and 10CFR 50.59(b) by reducing the submittal frequency of certain reports to the NRC. The proposed revisions do not involve any change to plant design, plant operation, or configuration of any plant equipment that is used to mitigate the consequences of an accident previously evaluated. Also, the proposed changes do not alter the conditions or assumptions in any of the Updated Safety Analysis Report (USAR) accident analyses. Since the USAR accident analyses remain bounding, the radiological consequences previously evaluated are not adversely affected by the proposed changes. As administrative changes, all defined terms on the affected pages have been capitalized. Therefore, it can be concluded that the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed License Amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Evaluation

The proposed changes are administrative in nature and makes the CNS T/S consistent with amended regulations of 10CFR50.36(a), and 10CFR50.59(b) by reducing the submittal frequency of certain reports to the NRC. The proposed revisions do not involve any change to plant design, plant operation, or configuration of any plant equipment that is used to mitigate the consequences of an accident previously evaluated. Accordingly, no new failure modes have been created for any plant system or component important to safety nor has any new limiting failure been identified as a result of the proposed changes. Also, there will be no change in the types or increase in the amount of effluents released offsite. As administrative changes, all defined terms on the affected pages have been capitalized. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change create a significant reduction in the margin of safety?

Evaluation

The proposed changes are administrative in nature and do not adversely impact the plant's ability to meet applicable regulatory requirements related to liquid or gaseous effluents, and solid waste releases. The proposed changes do not alter any

administrative controls over radioactive effluents, nor do the proposed changes involve any physical alterations to the plant with respect to radioactive effluents. These changes do not affect the meaning, application, and function of the T/S requirements. The proposed change will reduce the administrative burden of NRC reporting without reducing the protection for public health and safety. As administrative changes, all defined terms on the affected pages have been capitalized. Therefore, the proposed change does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Asuburn Public Library, 118 15th Street, Auburn, Nebraska 68305

Attorney for licensee: Mr. G. D. Watson, Nebraska Public Power District, Post Office Box 499, Columbus, Nebraska 68602-0499

NRC Project Director: William D. Beckner

Niagara Mohawk Power Corporation, Docket No. 50-220, Nine Mile Point Nuclear Station Unit No. 1, Oswego County, New York

Date of amendment request: January 6, 1994

Description of amendment request: The proposed amendment would revise Technical Specification (TS) Tables 3.2.7, 3.6.2a, 4.6.2a, 3.6.2b and 4.6.2b to delete the main steam line isolation and automatic reactor shutdown (reactor scram) functions of the Main Steam Line Radiation Monitor. Conforming changes would also be made to the Bases of these TSs and to the Bases for TS 2.1.2. The licensee stated that the proposed changes would be consistent with the NRC's Improved Standard Technical Specifications, NUREG-1433, and with NRC-approved (Safety Evaluation, dated May 15, 1991) Boiling Water Reactor Owners' Group Licensing Topical Report NEDO-31400A, dated July 9, 1987.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

The operation of Nine Mile Point Unit 1 in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated because the functions being removed do not contribute to avoidance of any previously evaluated accidents. Further, the changes have been shown to have an insignificant impact on overall reactivity control failure frequency. This insignificant impact is offset by the relatively large reduction in core damage frequency realized by the implementation of these changes. Hence, the probability or consequences of previously evaluated accidents are not significantly increased due to this change. To the contrary, as stated in the topical report [NEDO-31400A] the changes provide a net improvement in overall plant safety.

The proposed amendment does not involve a physical or procedural change to any structure, component or system that significantly affects the probability or consequences of any accident or malfunction of equipment important to safety previously evaluated in the Final Safety Analysis Report (Updated). The proposed amendment will involve a change to reactor protection and isolation actuation systems circuitry that will remove the automatic reactor shutdown and Main Steam Line Isolation Valve closure functions of the Main Steam Line Radiation Monitor. However, the physical changes will not affect the remaining scram or vessel isolation functions.

[***T]he methods, procedures and assumptions used to perform the eneric analyses in NED0-31400A are bounding for the Nine Mile Point Unit 1 with regard to input values. Niagara Mohawk has also provided in the evaluation reasonable assurance that significantly increased levels of radioactivity in the main steam lines will be controlled expeditiously to limit both occupational and environmental exposures. The Main Steam Line Radiation Monitor alarm setpoints will be set at 1.5 times the normal full power background dose rate and should any monitor exceed its alarm setpoint, the reactor coolant will be sampled to determine activity levels and the possible need for additional corrective actions.

The offgas radiation monitor is a more sensitive monitor than the Main Steam Line Radiation Monitor because the nitrogen-16 source, dominating the radiation signal to the Main Steam Line Radiation Monitor, has decayed by the time the radiation monitor can be affected by any increased levels of activity. Therefore, setting the offgas radiation monitor at 1.5 times the nitrogen-16 background dose rate is not reasonable since setting the monitor that low can lead to spurious activations of the alarm.

Nine Mile Point Unit 1's monitor configuration, as described in the FSAR, detects the concentration of the offgas as it flows through the pipe. Thus, the detector is sensitive to fluctuations in condenser air inleakage, which can have an appreciable impact on the monitor readings, especially at readings as low as 1.5 times the normal full power background. Therefore, Niagara Mohawk proposes to set the alarm at five (5) times the normal full power background, which is still very conservative compared to the value allowed by Technical Specification 3.6.15.c., which is set based on Nine Mile Point Unit 1's Offsite Dose Calculation Manual.

Niagara Mohawk believes that a setting of five (5) times the normal full power background is extremely conservative and is low enough to ensure detection of even minor fuel performance changes. Furthermore, if the monitor alarms at this setpoint of five times the normal full power background, the offgas will immediately be sampled and analyzed, followed by an analysis of a reactor coolant sample.

Furthermore, the analyses in the Licensing Topical Report demonstrate that removal of the automatic reactor scram and Main Steam Line Isolation Valve closure functions of the Main Steam Line Radiation Monitor does not change the conclusions in the Final Safety Analysis Report (Updated) that the calculated radiological release consequences of the bounding control rod drop accident will not exceed the acceptable dose limits specified in 10CFR[Part]100.

Therefore, Niagara Mohawk concludes that the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The operation of Nine Mile Point Unit 1 in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any previously evaluated.

The function of a Main Steam Line Radiation Monitor trip is to detect abnormal fission produce release and isolate the main steam lines, thereby stopping the transport of fission products from the reactor to the main condenser. The monitors do not perform a prevention function for any kind of accident.

The main steam line high radiation scram and main steam line isolation functions were originally intended to mitigate, not prevent, an existing accident scenario. However, the functions being removed do not contribute to avoidance or mitigation of any previously evaluated accidents since no credit is taken for these functions in any design basis event for terminating the initiating event or assuring the radioactive release remains within accepted limits. The existence of a Main Steam Line Radiation Monitor trip does not prevent the occurrence of a fuel failure event or any other type of event. Elimination of these functions will not introduce a new or different accident scenario.

The proposed amendment represents a change to the physical configuration of the plant in that some reactor protection system circuits will be modified to eliminate the main steam line high radiation scram and main steam line isolation signals. However, these changes will not affect the remaining scram or vessel isolation functions. In all other respects, plant design and operation remain unchanged.

Therefore, Niagara Mohawk Power Corporation concludes that the proposed amendment will not create the possibility of a new or different kind of accident from any previously evaluated.

The operation of Nine Mile Point Unit 1 in accordance with the proposed amendment will not involve a significant reduction in a margin of safety.

The proposed changes do not involve a significant reduction in a margin of safety because, as shown in the topical report, the

changes represent an overall improvement in plant safety in that the core damage frequency is reduced. Safe operation of the plant is enhanced by elimination of the unnecessary scram and isolation of the reactor vessel. With implementation of these changes, the primary heat sink remains available, a large transient on the vessel and safety-related actuations is avoided, and the Offgas System remains available to control the pathway of a potential release. Therefore, Niagara Mohawk concludes that the proposed amendment will not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126.

Attorney for licensee: Mark J. Wetterhahn, Esquire, Winston & Strawn, 1400 L Street, NW., Washington, DC 20005-3502.

NRC Project Director: Robert A. Capra

Northeast Nuclear Energy Company, Docket No. 50-245, Millstone NuclearPower Station, Unit 1, New London County, Connecticut

Date of amendment request: January 14, 1994

Description of amendment request: The proposed amendment corrects an editorial error. Specifically, the amendment changes the reference in Limiting Condition for Operation (LCO) 3.4.D from "3.3.A through C" to "3.4.A, 3.4.B, and 3.4.C." The amendment also changes the associated bases to clarify the LCO minimum solution concentration requirement of 11 weight percent and updates the excerpt from 10 CFR 50.62 to reflect the current text of the regulation.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

In accordance with 10 CFR 50.92, NNECO [Northeast Nuclear Energy Company] has reviewed the proposed change and has concluded that it does not involve a significant hazards consideration (SHC). The basis for this conclusion is that the three criteria of 10 CFR 50.92(c) are not compromised. The proposed change does not involve an SHC because the change would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change only modifies an incorrect reference in Section 3.4.D of the Technical Specifications. In practice, if Specification 3.4.A, 3.4.B, or 3.4.C cannot be met, an orderly shutdown is initiated. As currently written, the failure to meet the requirements of Section 3.3 would also initiate a shutdown in accordance with Section 3.4.D. This is not the intent of Section 3.4.D since Section 3.3 already has specific shutdown requirements. This proposed change will correct Section 3.4.D so that it limits the conditions under which a plant shutdown must be initiated to the LCOs of the standby liquid control system. Therefore, this proposed change will not increase the probability or consequences of an accident.

2. Create the possibility of a new or different kind of accident from any previously evaluated.

The proposed change corrects an incorrect section reference. There is no change to the operation or design of the plant, nor is there any change to the operability requirements of either section. The proposed change properly identifies the conditions under which the plant must be shutdown if an LCO is not met for the standby liquid control system. In practice, if Specification 3.4.A, 3.4.B, or 3.4.C cannot be met, an orderly shutdown is initiated. Since there is no change in plant operation or design, there is no possibility of a different kind of accident.

3. Involve a significant reduction in a margin of safety.

The proposed change does not modify the design or function of the plant, nor does it reduce operability requirements of either Section 3.3 or 3.4. The proposed change only corrects an incorrect section reference by identifying the correct shutdown requirements for the standby liquid control system. Since there is no change to plant operation or design and the shutdown requirements are not reduced, there is no reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Learning Resources Center, Three Rivers Community-Technical College, Thames Valley Campus, 574 New London Turnpike, Norwich, Connecticut 06360.

Attorney for licensee: Gerald Garfield, Esquire, Day, Berry & Howard, Counselors at Law, City Place, Hartford, Connecticut 06103-3499.

NRC Project Director: John F. Stolz

Northeast Nuclear Energy Company (NNECO), Docket Nos. 50-245, 50-336 and 50-423, Millstone Nuclear Power Station, Units 1, 2 and 3, New London County, Connecticut

Date of amendment request: December 22, 1993

Description of amendment request: The proposed amendments would change the Technical Specification (TS) as follows:

1. Change the title of the Nuclear Station Director to Senior Vice President - Millstone Station.

2. Remove the requirement to provide a copy of Plant Operations Review Committee (PORC) and Site Operations Review Committee (SORC) meeting minutes to the Executive Vice President - Nuclear. The Senior Vice President - Millstone Station is being proposed to replace the Executive Vice President - Nuclear for receipt of PORC and SORC meeting minutes.

3. Make editorial changes to the Millstone Unit No. 1 TS Index.

4. Correct a typographical error in Section 6.2.1.d of the Millstone Unit No. 1 TS.

5. Correct a typographical error in Section 6.5.3.1.a of the Millstone Unit No. 3 TS.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration (SHC), which is provided below:

The proposed changes do not involve an SHC because the changes do not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

No design basis accidents are affected by these proposed changes. The proposed changes are administrative and editorial in nature to reflect a recent reorganization, removal of the Executive Vice President - Nuclear from receipt of PORC and SORC meeting minutes, addition of the Senior Vice President - Millstone Station to the receipt of PORC and SORC meeting minutes, and editorial changes to the Millstone Unit Nos. 1 and 3 Technical Specifications. No safety systems are adversely affected by the proposed changes, and no failure modes are associated with the changes. Therefore, there is no impact on the probability of occurrence or the consequences of any design basis events.

2. Create the possibility of a new or different kind of accident from any previously evaluated.

Since there are no changes in the way the plant is operated, the potential for an unanalyzed accident is not created. There is no impact on plant response, and no new failure modes are introduced. These proposed administrative and editorial changes have no impact on safety limits or design basis accidents, and they have no potential to create a new or unanalyzed event.

3. Involve a significant reduction in a margin of safety.

The changes do not directly affect any protective boundaries nor do they impact the safety limits for the protective boundaries. These proposed changes are administrative

and editorial in nature. Therefore, there can be no reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Learning Resource Center, Three Rivers Community-Technical College, Thames Valley Campus, 574 New London Turnpike, Norwich, Connecticut 06360.

Attorney for licensee: Gerald Garfield, Esquire, Day, Berry & Howard, Counselors at Law, City Place, Hartford, Connecticut 06103-3499.

NRC Project Director: John F. Stolz

Northeast Nuclear Energy Company, et al., Docket No. 50-423, Millstone Nuclear Power Station, Unit No. 3, New London County, Connecticut

Date of amendment request: December 17, 1993

Description of amendment request: The proposed amendment would revise the Technical Specifications to allow a relaxation in setpoint tolerance of the pressurizer safety valves (PSVs) and main steam safety valves (MSSVs) from plus or minus 1% to plus or minus 3% for the "as-found" test condition.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration (SHC), which is presented below:

The proposed changes do not involve an SHC because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes revise the "as found" setpoint tolerances for the PSVs and MSSVs from [plus or minus] 1% to [plus or minus] 3%. For the resetting of the PSVs and MSSVs, a [plus or minus] 1% setpoint tolerance will be required prior to declaring the valve operable for those instances where the [plus or minus] 1% tolerance was exceeded. The proposed changes involve no hardware modifications to plant structures, systems, or components. The proposed setpoint tolerance of [plus or minus] 3% for the "as-found" condition was previously evaluated as part of the PSE [Plant Safety Evaluation] report for the transition to VANTAGE 5H fuel. The PSE was reviewed and approved by the NRC staff as a part of a prior license amendment.(9) In addition, since the proposed changes have previously been evaluated by the PSE report, the calculated radiological release associated with the PSE remain unaffected. In addition, the proposed changes are in compliance with applicable sections of the ASME Code and will not significantly affect structural integrity of either the reactor coolant system or the main steam system. Therefore, the proposed changes will have no effect on the probability or consequences of previously evaluated accidents.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes will not create the possibility of a new or different kind of accident from those previously analyzed. The changes revise the Technical Specifications so that setpoint tolerance for the PSVs and MSSVs can be [plus or minus] 3% for the "as-found" condition. These changes have no effect on plant operation. The PSV and MSSV setpoint drift in excess of the [plus or minus] 1% lift setting is an occurrence which has previously and may subsequently occur. The analyses for the transition to the VANTAGE 5H fuel have examined the effects on the plant accident analyses for relaxation in PSV and MSSV setpoint tolerance to [plus or minus] 3%. Also, these changes will have no effect on ASME Code compliance. These changes do not introduce any new failures.

3. Involve a significant reduction in the margin of safety.

In support of the transition to the VANTAGE 5H fuel, a PSE was performed which assumed a [plus or minus] 3% setpoint tolerance for both the PSVs and MSSVs. Therefore, the effects of relaxing the PSV and MSSV setpoints are already accounted for in the existing analyses of record and will not affect the plants accident analyses. Additionally, the proposed changes will have no significant effect on the structural integrity of the reactor coolant system or the main steam system. Also, for those occurrences where the "as-found" setpoint of the PSV or MSSV is in excess of [plus or minus] 1%, a resetting to within [plus or minus] 1% of the valve setpoint will be required prior to declaring the valve operable. Therefore, the proposed changes will not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Learning Resource Center, Three Rivers Community-Technical College, Thames Valley Campus, 574 New London Turnpike, Norwich, Connecticut 06360.

Attorney for licensee: Gerald Garfield, Esquire, Day, Berry & Howard, City Place, Hartford, Connecticut 06103-3499.

NRC Project Director: John F. Stolz

Pacific Gas and Electric Company, Docket Nos. 50-275 and 50-323, DiabloCanyon Nuclear Power Plant, Unit Nos. 1 and 2, San Luis Obispo County, California

Date of amendment requests: December 14, 1993 (Reference LAR 93-07)

T3Description of amendment requests: The proposed amendment would revise the combined Technical Specifications (TS) for the Diablo Canyon Power Plant (DCPP) Unit Nos. 1 and 2 to revise Technical Specification (TS) 3/4.8.1, "A.C. Sources" to increase the required quantity of emergency diesel generator (EDG) fuel oil stored in the engine-mounted tank (day tank). The amendment request also proposes to revise TS 3/4.7.11, "Area Temperature Monitoring," and 3/4.8.1 to remove references to a five EDG configuration. The specific TS changes proposed are as follows:

(1) TS 3/4.7.11 would be revised to remove references to a common (swing) diesel generator in Table 3.7-5.

(2) TS 3.8.1.1 and TS 3.8.1.2 would be revised to increase the required minimum contained volume in the EDG engine-mounted fuel tank (day tank) from 200 gallons to 250 gallons.

(3) TS 3.8.1.1 and TS 4.8.1.1.2 would be revised to remove references to a five EDG configuration.

(4) TS 3.8.1.2 would be revised to correct a footnote. TS Bases 3/4.8.1, 3/4.8.2, and 3/4.8.3 would be revised to clarify commitments to Regulatory Guide 1.137 and expand the scope of information contained within the TS Bases.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed increase in day tank TS minimum contained volume requirements provides additional conservatism to assure the EDG fuel oil contained in the day tank is sufficient to provide adequate time for an operator to take corrective action to restore the fuel oil supply to the affected day tank in the unlikely event that the fuel oil supply from the main tanks were cut off.

Deletion of TS references to a five diesel generator configuration and correction of the TS 3.8.1.2 footnote are administrative changes that do not change the operating methodology of DCPP. These proposed administrative changes remove outdated information and correct an administrative oversight.

Therefore, the proposed changes do not involve a significant increase in the

probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed increase in day tank TS minimum contained volume requirements would not involve any physical change to the plant systems or, in particular, to the EDG day tanks. The change does not affect the ability of the EDGs to start and to fulfill their safety-related function. Hence, no new failure mechanisms will be introduced.

The proposed removal of references to a five EDG configuration and correction of the TS 3.8.1.2 footnote are administrative in nature. Further, the proposed changes would not result in any physical alteration to any plant system. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

Increasing the day tank TS minimum contained volume requirements is a conservative change which provides additional margin to assure the EDG fuel oil contained in the day tank is sufficient to provide adequate time for an operator to take corrective action to restore the fuel oil supply to the affected day tank in the unlikely event that the fuel oil supply from the main tanks were cut off. The proposed change will not alter any accident analysis assumptions, initial conditions, or results. Consequently, the proposed change to increase the EDG day tank TS contained fuel oil requirement does not have any effect on the margin of safety.

The proposed administrative changes clarify the TS by removing references to a five diesel generator configuration and correcting the TS 3.8.1.2 footnote.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment requests involve no significant hazards consideration.

Local Public Document Room location: California Polytechnic State University, Robert E. Kennedy Library, Government Documents and Maps Department, San Luis Obispo, California 93407

Attorney for licensee: Christopher J. Warner, Esq., Pacific Gas and Electric Company, P.O. Box 7442, San Francisco, California 94120

NRC Project Director: Theodore R. Quay

Philadelphia Electric Company, Docket Nos. 50-352 and 50-353, Limerick Generating Station, Units 1 and 2, Montgomery County, Pennsylvania

Date of amendment request: December 9, 1993

Description of amendment request: The amendment would change the Operating Licenses and their corresponding Appendices A to reflect the planned implementation of the Power Rerate Program at Limerick Generating Station Units 1 and 2, and the corresponding increase in the authorized maximum reactor core power level by five percent to 3458 megawatts thermal (MWt) from the current limit of 3293 MWt.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1) The proposed Operation License (OL) changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed power rerate imposes only minor increases in the plant operating conditions. Plant systems, components, and structures have been verified to be capable of performing their intended functions under rerated conditions. Where necessary, some components will be modified or replaced prior to implementation of the Power Rerate Program to accommodate the revised operating condition. No new component or system interactions that could lead to an accident are created. As discussed below, no transient events result in a new sequence of events which could lead to a new accident scenario. Emergency Core Cooling Systems (ECCS) - Loss-of-Coolant Accident (LOCA) Analysis.

The current ECCS-LOCA performance analysis is already bounding for power rerate conditions. The fuel peak cladding temperature for rerate conditions is 1,345°F, which is below the 2,200°F regulatory limit. Therefore, the analysis demonstrates that the LGS, Units 1 and 2 will continue to comply with 10CFR50.46 and 10CFR50, Appendix K.

Transient Event Analysis

The evaluation results for transient events indicate the margin to the fuel Safety Limit Minimum Critical Power ratio (MCPR) will be maintained for the 8x8 array fuel types, such as GE8x8NB or GE11 fuel design. The current fuel thermal-mechanical limits will continue to be met.

Also, the power-dependent and flow-dependent MCPR and Maximum Average Planar Linear Heat Generation Rate (MAPLHGR) limits developed as part of the Average Power Range Monitor Rod Block Monitor Technical Specifications (ARTS) improvement program are applicable to power rerate. A TS Change Request to implement the ARTS improvement program was submitted to the NRC by letter dated August 27, 1993. The peak reactor vessel bottom head pressure will remain within the American Society for Mechanical Engineers (ASME) Code requirement for reactor overpressure protection.

The analysis performed focused on the most limiting transient events in each disturbance category selected specifically for the power rerate evaluations. The results demonstrated that LGS, Unit 1 and Unit 2 core thermal power output can be safely increased to power rerate parameters without impacting plant safety during a postulated transient event. The details of the impact to the description in the UFSAR are delineated below.

a) Events Resulting in a Core Coolant Temperature Decrease

i) Loss of Feedwater Heating (LFWH)

The delta Critical Power Ratio (delta CPR) for the LFWH event at the rerated power is bounded by the result estimated for the current rated power level and remains significantly less than the Operating Limit MCPR. There is no change between the delta CPR results for high and low reactor core flow conditions. The calculated thermal and mechanical overpowers for this event at power rerate conditions also meet the fuel design criteria.

ii) Feedwater Controller Failure (FWCF) Maximum Demand

For the Increased Core Flow (ICF) and the Maximum Extended Load Line Limit (MELLL) conditions, the trend for the FWCF - Maximum Demand event at rerate conditions is consistent with the current rated power analysis. For both high and low reactor core flow conditions, the FWCF - Maximum Demand event becomes most limiting due to the Turbine Bypass Valve Out-of-Service (TBVOOS) and the Recirculation Pump Trip Out-of-Service (RPTOOS) analyses assumption. The fuel thermal margin results remain within the acceptable limits for the fuel type analyzed.

b) Events Resulting in a Reactor Pressure Increase

i) Turbine Trip with No Bypass (TTNBP)

At rerate conditions, the fuel transient thermal and mechanical overpower results remain below the NRC acceptance criteria.

ii) Generator Load Rejection with No Bypass (LRNBP)

The fuel transient thermal responses are less severe than for the TTNBP event described above. Therefore, at power rerate conditions, the LRNBP event remains bounded by the TTNBP event.

iii) Main Steam Isolation Valve Closure, Flux Scram (MSIVF)

The peak reactor vessel bottom head pressure for rerate conditions is slightly higher than the pressure at current rated conditions due to the higher initial reactor coolant system pressure. However, this result is still below the ASME overpressure limit of 1,375 psig by a margin of 33 psi.

c) Events Resulting in a Core Coolant System Flow Rate Decrease

i) Recirculation Pump Seizure

The recirculation pump seizure assumes instantaneous stoppage of the pump motor

shaft of one recirculation pump. As a result, the reactor core flow decreases rapidly. The reactor flow decreases rapidly. The reactor vessel level swell due to the rapid reactor core flow reduction reaches the high reactor water level setpoint, causing a feedwater pump trip, a main turbine trip, and subsequently a reactor scram on turbine stop valves closure. The peak neutron flux and average fuel surface heat flux do not increase significantly above the initial conditions, therefore no impact on the fuel thermal margin is postulated to occur.

d) Events Resulting in Reactivity and Power Distribution Anomalies

i) Rod Withdrawal Error (RWE)

The calculated delta CPR of 0.10 for this event at rerate conditions is bounded by the generic ARTS - based RWE limits of 0.13. Therefore, the generic ARTS-based RWE analysis delta CPR result is verified to be applicable for power rerate conditions for LGS Units 1 and 2.

e) Events Resulting in a Reactor Coolant Inventory Increase

i) Inadvertent High Pressure Coolant Injection (HPCI) System Actuation

Based on the peak average fuel surface heat flux results, the HPCI actuation event will be bounded by the limiting pressurization event (i.e., the TTNBP event described above) for delta CPR consideration.

Anticipated Transients Without SCRAM (ATWS) Analysis

A generic evaluation for the ATWS event is provided in Section 3.7 of the Topical Report NEDC-31984P, "Generic Evaluations of General Electric Boiling Water Reactor Power Uprate," Supplement 1, dated July 1991. This evaluation concludes that the ATWS acceptance criteria for fuel, reactor pressure vessel (RPV) and containment integrity will be met, if the following exists:

- Reactor power increases less than or equal to 5%
- Reactor Steam Dome pressure increases less than or equal to 40 psi;
- Safety Relief Valve (SRV) opening setpoints increase less than or equal to 80 psi; and
- ATWS high pressure setpoint increases less than or equal to 20 psi.

The plant's parameter changes will remain within the above criteria, except that the ATWS high pressure setpoint increase is 40 psi rather than 20 psi in order to maintain the same relationship between the ATWS high pressure setpoint and the SRV opening setpoints. Based on the previous analysis, this difference would have a minor effect on the analysis results. The only significant change is a slightly higher (i.e., about 10 psi) peak RPV pressure.

For additional assurance, a LGS specific ATWS analysis for a 5% power rerate was performed. The events analyzed were:

1. Main Steam Isolation Valve (MSIV) Closure,
2. Pressure Regulator Failure - Open,
3. Loss of Feedwater, and
4. Inadvertent Opening of a Relief Valve.

The LGS specific analysis also concludes that the ATWS acceptance criteria for fuel, RPV, and containment integrity will be met for a 5% power rerate.

Other Evaluations

The impact of power rerate on the radiological consequences of the accidents presented in UFSAR Chapter 15 was determined based on the current design basis analyses, post rerate implementation system conditions, and radiological source terms. In general, power rerate will result in a small increase in the quantity of radioactive material released during accidents and therefore slightly higher (i.e., approximately 2% to 5%) accident doses. However, USFAR Chapter 15 accident doses for rerated conditions remain within the regulatory limits specified in 10CFR100 and 10CFR50, Appendix A, GDC 19.

The UFSAR Chapter 15 accidents that were evaluated and updated for rerate conditions are as follows:

1) Loss of Coolant Accident (LOCA)
2) Main Steam Line Break (MSLB)
3) Fuel Handling Accident
4) Control Rod Drop Accident
5) Instrument Line Break
6) Feedwater Line Break
7) Steam Jet Air Ejector Line Break
8) Offgas System Failure
9) Liquid Radioactive Waste System Failure

An evaluation was also performed to address the power rerate impact on accident mitigative features, structures, systems, and components, within the balance of plant. The results are as follows:

- Auxiliary systems such as the Emergency Service Water, Residual Heat Removal (RHR) Service Water, Ultimate Heat Sink (i.e., the spray pond), safety-related portions of secondary containment reactor enclosure air cooling, primary containment drywell air recirculation, and Emergency Diesel Generator enclosure ventilation were confirmed to operate acceptably under normal and accident conditions after implementation of power rerate.
- Combustible gas control systems were confirmed to be capable of maintaining oxygen concentrations inside the primary containment within regulatory limits under post accident rerate conditions.
- The secondary containment reactor enclosure recirculation system and Standby Gas Treatment system were confirmed to be able to adequately contain, process, and control the release of normal and post-accident levels of radioactive material after implementation of power rerate.
- Instrumentation was reviewed and confirmed to be capable of performing their control and monitoring functions under rerate conditions.
- Electric power systems including the main turbine generator and switchgear components were verified as being capable of providing the electrical load as a result of the rerated power levels. No safety-related electrical loads were affected which would impact the Emergency Diesel Generators.
- Piping systems were evaluated for the effect of operation at higher power levels, including transient loadings. The evaluation confirmed that with few exceptions piping and supports are adequate to accommodate the increased loadings resulting from operation at rerated power conditions. In a few cases, piping supports will be modified to accept the higher forces due to rerate conditions.
- The effect of rerate conditions on high energy line break (HELB) events for all Nuclear Steam Supply System (NSSS) and Balance of Plant (BOP) systems was evaluated. The evaluation confirmed structures, systems, and components important to safety are capable of accommodating the effects of jet impingement and blowdown forces and the environmental effects resulting from HELB events at rerate conditions.
- The Moderate Energy Line Break (MELB) analysis was evaluated for impact due to rerate conditions. Sufficient margin was determined to exist in the original analysis to bound the rerate conditions.
- Main control room (MCR) habitability was evaluated. Post-accident MCR and Technical Support Center (TSC) doses were confirmed to be within the limits of General Design Criterion (GDC) 19 of 10CFR50 Appendix A.
- Radiation doses for normal operation were reviewed and confirmed to remain within the limits of 10CFR20 and 10CFR50, Appendix I. The impact on post-accident sampling activities and post-accident access to vital areas was also confirmed to be acceptable.
- The environmental qualification of electrical and mechanical equipment important to safety was evaluated for the impact of normal and accident operating conditions at rerated power levels. The majority of equipment will remain qualified for the new conditions. For equipment that is not qualified, corrective actions will be taken to ensure the plant equipment will perform their intended functions under rerate conditions. No new equipment will be added for power rerate which would increase the potential for component failure. The Preventative Maintenance Program (PMP) will continue to provide for appropriate equipment repair or replacement during operation at rerated power conditions.
- The impact of operation at rerated power levels was evaluated for Station Blackout and Fire Safety Shutdown area heat-up concerns. The evaluation confirmed there is no adverse impact from rerate on the ability of the plant to achieve safe shutdown under these conditions.
- The consequences of postulated transients and special events (i.e., ATWS and Station Blackout) will remain within NRC acceptance criteria for rerate conditions. Concurrent malfunctions assumed to occur during accidents have been accounted for in the safety analyses for rerate conditions. The consequences of these equipment malfunctions will not change with implementation of the Power Rerate Program. Equipment that is important to safety either is capable of or will be modified and/or replaced to be capable of performing its intended function. The availability of redundant systems to provide safety functions in the event of component malfunction is not impacted as a result of rerate conditions. Furthermore, the impact of power rerate on the consequences of abnormal transients and accident conditions which are a result of component malfunctions has been shown to be acceptable.

The probability (i.e., frequency of occurrence) of Design Basis Accidents (DBAs) occurring is not affected by the proposed increased power level, as the applicable regulatory criteria established for plant equipment (e.g., ASME Code, the Institute of Electrical and Electronics Engineers (IEEE) standards, National Electrical Manufacturer's Association (NEMA) standards, NRC Regulatory Guides) will still be followed as the plant is operated at the rerated power level. Reactor SCRAM setpoints will be established such that there is no significant increase in frequency due to rerate conditions. No new challenges to safety-related equipment will result from the implementation of power rerate.

The changes in consequences of hypothetical accidents which would occur from 102% of the rerated power, compared to those previously evaluated, are in all cases not significant, because the accident evaluations from a power rerate to 105% of original rated power will not result in exceeding the applicable NRC approved acceptance limits. The spectrum of hypothetical accidents and transients has been investigated, and has been determined to meet the current regulatory criteria for LGS, Units 1 and 2 at rerate conditions. The offsite radiological doses resulting from DBAs are calculated to increase by only a few percent (i.e., approximately 2% to 5%) because of the rerated power level, and will remain below 10CFR100 limits. In the area of reactor core design, the fuel operating limits will continue to be met at the rerated power level, and fuel reload analyses will continue to show that plant transients will meet the criteria accepted by the NRC as specified in NEDO-24011, "GESTAR II."

Challenges to fuel or ECCS performance were evaluated and shown to still meet the criteria of 10CFR50.46 and 10CFR50, Appendix K. Challenges to the primary containment have been evaluated and still meet 10CFR50, Appendix A, GDC 38, "Long Term Cooling," and GDC 50, "Containment." Radiological release events have been evaluated and have been shown to meet the guidelines of 10CFR100.

Therefore, the proposed OL changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2) The proposed OL changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

All actions to ensure that safety-related structures, systems, and components will remain within their design allowable values, and ensure that they can perform their intended functions under rerate conditions will be taken prior to implementation of power rerate. Power rerate does not increase challenges to or create any new challenges to safety-related equipment or other equipment whose failure could cause an accident. No new equipment is added as a result of implementing the Power Rerate Program which would create the possibility of a new type of accident. In addition, power rerate does not create any new sequence of events or failure modes that lead to a new type of accident.

Implementation of power rerate will increase the average neutron flux in the reactor core, which increases the integrated neutron fluence on the reactor pressure vessel (RPV) wall. To account for the higher fluence, an RPV fracture toughness analysis was performed for power rerate conditions. This analysis resulted in a proposed revision to the "pressure vs. temperature" curves currently provided in the Technical Specifications (TS), that will maintain the current level of protection for the RPV. Therefore, power rerate will not result in any new failure mode for the RPV, and thus, does not create the possibility of a different type of accident from any accident previously evaluated.

No new operating mode, safety-related equipment lineup, accident scenario, or equipment failure mode was identified as resulting from the implementation of the Power Rerate Program. The full spectrum of accident considerations defined in NRC Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants - LWR Edition," Revision 3, dated November 1978, have been evaluated for rerate conditions and no new or different kind of accident has been identified. Implementation of the Power Rerate Program uses already-developed technology and applies it within the capabilities of already existing plant equipment in accordance with presently existing regulatory criteria to include applicable NRC approved codes, standards, and methods. General Electric (GE) has designed Boiling Water Reactors (BWRs) of higher power levels than the rerated power of any of the currently operating BWR fleet and no new power dependent accidents have been identified.

Therefore, the proposed OL changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) The proposed OL changes do not involve a significant reduction in a margin of safety.

Power rerate will not involve a significant reduction in a margin of safety, as plant equipment and reactions to transients and hypothetical accidents will not result in exceeding the presently approved NRC acceptance limits. The accident doses are calculated to increase a few percent (approximately 2% to 5%) because of power rerate, but remain below 10 CFR 100 limits. The events (i.e., transients, accidents, and ATWS) that form the bases of the TS were evaluated for power rerate conditions. Although some changes to the TS are required to implement power rerate, no NRC acceptance limit will be exceeded. Therefore, the margins of safety with respect to the safety limits and other TS bases will be maintained.

For systems addressed in the TS Section 2.2, 3/4.1, 3/4.2, 3/4.3, 3/4.4, 3/4.5, 3/4.6 and 3/4.7 (i.e., Reactor Protection System, Standby Liquid Control System, Power Distribution Limits, Instrumentation, Reactor Coolant System, Emergency Core Cooling Systems, Containment Systems, and Plant Systems), all components will be operable and capable of performing their intended functions under power rerate conditions such that the margin of safety is not adversely impacted.

Therefore, the proposed OL changes do not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Pottstown Public Library, 500 High Street, Pottstown, Pennsylvania 19464.

Attorney for licensee: J. W. Durham, Sr., Esquire, Sr. V. P. and General Counsel, Philadelphia Electric Company, 2301 Market Street, Philadelphia, Pennsylvania 19101

NRC Project Director: Charles L. Miller

Philadelphia Electric Company, Public Service Electric and Gas Company,Delmarva Power and Light Company, and Atlantic City Electric Company,Dockets Nos. 50-277 and 50-278, Peach Bottom Atomic Power Station,Units Nos. 2 and 3, York County, Pennsylvania

Date of application for amendments: December 21, 1993

Description of amendment request: The proposed Technical Specification (TS) changes revise Table 3.2.F, "Surveillance Instrumentation," to accurately describe the main stack high range and reactor building roof vent high range radiation monitors, and deletes previously approved TS Change Request (TSCR) 91-10 for Unit 3 (License Amendment No. 168). TSCR 91-10 requested an emergency temporary change to the TS to allow fuel loading to take place without all control rods fully inserted into the core.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Because the proposed changes are administrative in nature, they do not affect the initial conditions or precursors assumed in the Updated Final Safety Analysis Report Section 14. These changes do not decrease the effectiveness of equipment relied upon to mitigate the previously evaluated accidents.

Therefore, there is no increase in the probability or consequences of an accident previously evaluated.

2. The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes do not make any physical changes to the plant or changes to operating procedures. Therefore, implementation of the proposed changes will not affect the design function or configuration of any component or introduce any new operating scenarios or failure modes or accident initiation.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety.

The proposed changes are administrative in nature and are intended to provide clarification or eliminate confusion when interpreting the Technical Specifications. The proposed changes do not adversely affect the assumptions or sequence of events used in any accident analysis.

Therefore, the proposed changes do not involve a reduction in any margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Government Publications Section, State Library of Pennsylvania, (REGIONAL DEPOSITORY) Education Building, Walnut Street and Commonwealth Avenue, Box 1601, Harrisburg, Pennsylvania 17105

South Carolina Electric & Gas Company, South Carolina Public ServiceAuthority, Docket No. 50-395, Virgil C. Summer Nuclear Station, Unit No. 1, Fairfield County, South Carolina

Date of amendment request: October 29, 1993

Description of amendment request: The licensee is preparing to replace the currently installed steam generators with new model Delta 75 steam generators (Delta 75 SGs). The new steam generators will be larger than those currently installed. The physical changes to the plant and the accident reanalyses needed to support those changes will necessitate changes to the Technical Specifications (TS). The TS changes requested involve alterations to the core operating limits, changes to various reactor trip setpoints, deletion of the negative flux rate trip, removal of references to specific analyses, changes to the steam/feedwater flow mismatch activation setpoint, changes to shutdown limits, changes to instrument uncertainty allowances, a change to the methodology for reactor coolant system (RCS) flow determination, modifications to departure from nucleate boiling (DNB) parameters, a change to the engineered safety features actuation system setpoints for steam generator water levels, removal of the F* and L* criteria, and the addition of a requirement for a first inservice inspection for the new steam generators. Due to the size of the new steam generators, TS containing references to the maximum containment pressure following a steam line break and the total RCS volume will also change; in addition, a reference to RCS temperature is changed from a nominal value to an indicated value.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), South Carolina Electric & Gas Company (SCE&G or the licensee) has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1) Operation of VCSNS [Virgil C. Summer Nuclear Station] in accordance with the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Implementation of the [Delta] 75 SGs and revised operating conditions do not contribute to the initiation of any accident evaluated in the FSAR [Final Safety Analysis Report]. Supporting factors are as follows:

- The [Delta] 75 SG is designed in accordance with ASME [American Society of Mechanical Engineers] Code Section III, 1986 edition [sic] and other applicable federal, state, and local laws, codes and regulations and meets the original interfaces for the Model D3 SGs with exception that provisions for a larger blowdown nozzle have been made and the feedwater inlet nozzle is located in the upper shell.
- All NSSS [nuclear steam supply system] components (i.e., reactor vessel, RC Pumps, pressurizer, CRDM's [control rod drive mechanisms], [Delta] 75 SGs, and RCS piping) are compatible with the revised operating conditions. Their structural integrity is maintained during all proposed plant conditions through compliance with the ASME code.
- Fluid and auxiliary systems which are important to safety are not adversely impacted and will continue to perform their design function.
- Overall plant performance and operation are not significantly altered by the proposed changes.

Therefore, since the reactor coolant pressure boundary integrity and system functions are not adversely impacted, the probability of occurrence of an accident evaluated in the VCSNS FSAR will be no greater than the original design basis of the plant.

An extensive analysis has been performed to evaluate the consequences of the following accident types currently evaluated in the VCSNS FSAR:

- Non-LOCA [loss-of-coolant accident]
- Large Break LOCA
- Steam Generator Tube Rupture

With the [Delta] 75 SGs and revised operating conditions, the calculated results (i.e., DNBR [departure from nucleate boiling ratio], Primary and Secondary System Pressure, Peak Clad Temperature, Metal Water Reaction, Challenge to Long Term Cooling, Environmental Conditions Inside and Outside Containment, etc.) for the accidents are similar to those currently reported in the VCSNS FSAR. Select results (i.e., Containment Pressure During a Steam Line Break, Minimum DNBR for Rod Withdrawal from Subcritical, etc.) are slightly more limiting than those reported in the current FSAR due to the use of the assumed operating conditions with the new [Delta] 75 SGs, and in some cases, use of an uprated core power of 2900 MWt. However, in all cases, the calculated results do not challenge the integrity of the primary/ secondary/ containment pressure boundary and remain within the regulatory acceptance criteria applied to VCSNS's current licensing basis. The assumptions utilized in the radiological evaluations, described in Section 3.7, are thus appropriate and are judged to provide a conservative estimate of the radiological consequences during accident conditions. Given that calculated radiological consequences are not significantly higher than current FSAR results and remain well within 10CFR100 limits, it is concluded that the consequences of an accident previously evaluated in the FSAR are not increased.

2) The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The [Delta] 75 SGs and revised operating conditions will not introduce any new accident initiator mechanisms. Structural integrity of the RCS is maintained during all plant conditions through compliance with the ASME code. No new failure modes or limiting single failures have been identified. Design requirements of auxiliary systems are met with the RSGs [Replacement Steam Generators]. Since the safety and design requirements continue to be met and the integrity of the reactor coolant system pressure boundary is not challenged, no new accident scenarios have been created. Therefore, the types of accidents defined in the FSAR continue to represent the credible spectrum of events to be analyzed which determine safe plant operation.

3) The proposed license amendment does not involve a significant reduction in a margin of safety.

Although the [Delta] 75 SGs and revised operating conditions will require changes to the VCSNS Technical Specifications, it will not invalidate the LOCA, non-LOCA, or SGTR [steam generator tube rupture] conclusions presented in the FSAR accident analyses (Appendix 6). For all the FSAR non-LOCA transients, the DNB design basis, primary and secondary pressure limits, and dose limits continue to be met. The LOCA peak cladding temperatures remain below the limits specified in 10CFR50.46. The calculated doses resulting from a SGTR event will continue to remain within a small fraction of the 10CFR100 permissible releases. Environmental conditions

associated with High Energy Line Break (HELB) both inside and outside containment have been evaluated. The containment design pressure will not be violated as a result of the HELB. Equipment qualification will be updated, as necessary, to reflect the revised conditions resulting from HELB. The margin of safety with respect to primary pressure boundary is provided, in part, by the safety factors included in the ASME Code. Since the components remain in compliance with the codes and standards in effect when VCSNS was originally licensed (with the exception of the [Delta] 75 RSGs which use the 1986 ASME Code Section III Edition), the margin of safety is not reduced. Thus, there is no reduction in the margin to safety as defined in the bases of the VCSNS Technical Specifications.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Fairfield County Library, Garden and Washington Streets, Winnsboro, South Carolina 29180

Attorney for licensee: Randolph R. Mahan, South Carolina Electric & Gas Company, Post Office Box 764, Columbia, South Carolina 29218

NRC Project Director: S. Singh Bajwa

South Carolina Electric & Gas Company, South Carolina Public ServiceAuthority, Docket No. 50-395, Virgil C. Summer Nuclear Station, Unit No. 1, Fairfield County, South Carolina

Date of amendment request: December 17, 1993

Description of amendment request: The proposed changes would revise Technical Specification 3/4.3.3.6, "Accident Monitoring Instrumentation," and the associated Technical Specification Bases. The changes are in accordance with the applicable guidance of Revision 3 to Regulatory Guide (RG) 1.97.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below. The proposed changes would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

Regulatory Guide 1.97 furnishes standards acceptable to the NRC for instrumentation to monitor plant variables and systems during and following an accident. The purpose of the accident monitoring instrumentation is to display plant variables that provide information required by the control room operators for manual actions and long term recovery. Determination of variable types and category designations for VCSNS [Virgil C. Summer Nuclear Station] was accomplished from a review of the Emergency Response Guidelines (ERGs), the Final Safety Analysis Report, and the Westinghouse Owners Group (WOG) ERGs. The WOG ERGs were used at VCSNS as a basis for the Emergency Response Procedures. Operability of the instruments used for accident monitoring ensures there is sufficient information available on selected plant parameters to monitor plant status during and following an accident. The changes proposed do not effect components that can cause an accident. The increase in allowable outage times from 7 to 30 days or from 48 hours to 7 days does not significantly affect the consequences of an event previously evaluated. The channel redundancy and the relatively short outage times, coupled with the low probability of an event requiring accident monitoring instrumentation during this interval, ensure that sufficient information is available for operator manual actions. The condition of the plant in either HOT STANDBY or HOT SHUTDOWN, the first stage of the plant shutdown process, has no impact on the assumptions made in the accident analysis.

The change in mode applicability for the Reactor Building Area High Range Radiation Monitors to include modes 1, 2, and 3, but exclude mode 4, is based on the usage of these monitors which is to indicate a significant degradation of the reactor coolant pressure boundary. These monitors do not initiate any automatic mitigation system and are solely required to be operable to provide indication which in conjunction with other operator actions will aid in mitigating the consequences of design basis accidents. Design basis accident sequences which may create a significant degradation of the reactor coolant pressure boundary are not postulated to occur during mode 4. Therefore, the proposed change does not increase the probability or consequences of any accident previously evaluated.

(2) Create the possibility of a new or different kind of accident from any previously evaluated.

The proposed change is consistent with the requirements of RG 1.97. The accident monitoring instrumentation will make available reliable information to plant control room operators to mitigate the consequences of a design basis accident. The first stages of plant shutdown, HOT STANDBY and HOT SHUTDOWN, are plant modes for which VCSNS has been analyzed. Since no plant configuration changes or changes to the mode of operation of equipment, systems, and components are introduced by the proposed Technical Specification, no new failure modes or accident sequences are instituted. Therefore, the changes proposed do not create the possibility of a new or different kind of accident from any previously analyzed.

(3) Involve a significant reduction in a margin of safety.

The inclusion of category 1, type A or B, instrumentation in the TS [Technical Specifications] provides assurance that adequate information is available to the operators to maintain VCSNS in a safe condition during and following a design basis accident. Accomplishment of specific manual action by the control room operators is enhanced due to the availability and reliability of the indications. The proposed changes do not affect the design or operation of safety related components relied upon to automatically mitigate the consequences of a design basis event. The proposed change from HOT SHUTDOWN to HOT STANDBY as the first stage of plant shutdown will not affect the design or operation of any safety related system or component. Therefore, the changes proposed would not involve a reduction in any margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: Fairfield County Library, Garden and Washington Streets, Winnsboro, South Carolina 29180

Attorney for licensee: Randolph R. Mahan, South Carolina Electric & Gas Company, Post Office Box 764, Columbia, South Carolina 29218

NRC Project Director: S. Singh Bajwa

Southern California Edison Company, et al., Docket Nos. 50-361 and 50-362, San Onofre Nuclear Generating Station, Unit Nos. 2 and 3, San Diego County, California

Date of amendment requests: November 3, 1993

T3Description of amendment requests: The licensee proposes to revise the operability requirements of containment isolation valves listed in Technical Specification (TS) Table 3.6-1, Section D. The associated Bases 3/5.6.3, "Containment Isolation Valves," is also revised.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change provides new actions and Allowed Outage Times (AOTs) for valves in Section D of Technical Specification (TS) Table 3.6-1 that are currently allowed by the existing TS to be secured for an indefinite period of time as long as they are secured in their Engineered Safety Feature Actuation System (ESFAS) actuated position. These valves are considered operable by the existing TS although they may be unable to perform their containment isolation function.

The proposed change ensures that these valves are returned to operable status within specified times based on the results of specific risk evaluations on their contribution to core damage or offsite dose release. The proposed change does not involve a physical change to the facility as described in the Updated Final Safety Analysis Report (UFSAR). Therefore, this proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The ESFAS actuated positions of these valves are the positions assumed in the safety analysis. There are no new accidents associated with this proposed change because the previously analyzed events already considered failures of containment isolation valves. The plant is equipped with dual and redundant containment isolation valves. Leaving the valves in their ESFAS actuated positions does not create a new accident. Therefore, this proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

Response: No

This proposed change 1) limits the AOT of certain valves based on contributions to core damage and offsite dose release when the valves are secured in their ESFAS actuated position and 2) requires these valves to be returned to OPERABLE status prior to Mode 4 entry from a cold shutdown to ensure they are available to perform their intended containment isolation function. Previously, these valves could be secured in the ESFAS actuated position indefinitely. Therefore, this proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment requests involve no significant hazards consideration.

Local Public Document Room location: Main Library, University of California, P.O. Box 19557, Irvine, California 92713

Attorney for licensee: James A. Beoletto, Esquire, Southern California Edison Company, P. O. Box 800, Rosemead, California 91770

NRC Project Director: Theodore R. Quay

Virginia Electric and Power Company, Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and No. 2, Louisa County, Virginia

Date of amendment request: December 27, 1993

Description of amendment request: The proposed change would revise the Technical Specifications (TS) for the North Anna Power Station, Units No. 1 and No. 2 (NA-1&2). The proposed changes revise the review responsibilities of the Station Nuclear Safety and Operating Committee (SNSOC) and the Management Safety Review Committee (MSRC).

The NA-1&2 TS address the organization and responsibilities of both the onsite and offsite review groups: SNSOC and MSRC, respectively. The responsibilities of the SNSOC include the review of new procedures and changes to procedures that affect nuclear safety. The MSRC review responsibilities include the review of safety evaluations and SNSOC meeting minutes and reports. The extent of these review activities would be revised by the proposed changes to ensure the two review groups are focusing on nuclear safety issues and not spending an unnecessary amount of time on activities of minimal safety significance. Specifically, the proposed changes would revise the review responsibilities of SNSOC regarding procedure changes. Rather than reviewing all procedure changes, SNSOC would only review procedure changes that require a safety evaluation. The proposed changes also would revise the review responsibilities of the MSRC. Rather than reviewing all of the safety evaluations and SNSOC meeting minutes and reports as presently required by the TS, the MSRC would only review a representative sample of these documents.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

[T]he elimination of the SNSOC review of procedure changes that do not require a safety evaluation, revising the wording for approval of procedure changes, and the modification of the MSRC's duties regarding their review of safety evaluations and SNSOC meeting minutes and reports will not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. As administrative changes, the proposed Technical Specifications changes have no direct or indirect effect on accident precursors. No plant modifications are being implemented and operation of the plant is unchanged. SNSOC review of new procedures and procedure changes that require a safety evaluation ensures that activities that could affect nuclear safety are being properly reviewed. The MSRC's overview of representative samples of safety evaluations and SNSOC meeting minutes and reports based on performance ensures these programs are being properly implemented and nuclear safety is not being compromised; or

2. Create the possibility of a new or different kind of accident from any accident previously evaluated since physical modifications are not involved and systems and components will be operated as before the change. The proposed changes are wholly administrative in nature and have no impact on plant operations or accident considerations. These changes modify the scope of SNSOC review of procedure changes and MSRC's review functions concerning safety evaluations and SNSOC meeting minutes and reports. Procedure changes will continue to receive management review in accordance with administative procedures, however, only changes that require a safety evaluation will require SNSOC approval. MSRC review of representative samples of safety evaluations and SNSOC meeting minutes and reports based on performance will continue to provide adequate assurance that nuclear safety is being properly considered; or

3. Involve a significant reduction in a margin of safety as defined in the basis of any Technical Specification since the responsibilities of the SNSOC and MSRC are not addressed by the existing Technical Specification Bases, nor are review requirements for procedures. The proposed changes are administrative in nature and have no impact on, nor were they considered in, existing UFSAR accident analyses. Safety significant procedure changes, i.e., changes that require a safety evaluation to be prepared, will continue to be reviewed by SNSOC, as will new procedures. Procedure changes still require cognizant management approval and preparation of an activity screening to determine whether or not the change impacts nuclear safety. This ensures activities important to nuclear safety are being appropriately reviewed. The effectiveness of the safety evaluation program, and the thoroughness of SNSOC meetings and reports will be assured through the MSRC's plant overview function which is based on observed performance.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Local Public Document Room location: The Alderman Library, Special Collections Department, University of Virginia, Charlottesville, Virginia 22903-2498.

Attorney for licensee: Michael W. Maupin, Esq., Hunton and Williams, Riverfront Plaza, East Tower, 951 E. Byrd Street, Richmond, Virginia 23219

NRC Project Director: Herbert N. Berkow

Previously Published Notices Of Consideration Of Issuance Of Amendments To Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, And opportunity For A Hearing

The following notices were previously published as separate individual notices. The notice content was the same as above. They were published as individual notices either because time did not allow the Commission to wait for this biweekly notice or because the action involved exigent circumstances. They are repeated here because the biweekly notice lists all amendments issued or proposed to be issued involving no significant hazards consideration.

For details, see the individual notice in the **Federal Register** on the day and page cited. This notice does not extend the notice period of the original notice.

Duke Power Company, Docket No. 50-413, Catawba Nuclear Station, Unit No. 1, York County, South Carolina

Date of amendment request: January 10, 1994

Description of amendment request: The proposed amendment would revise Technical Specifications 2.0 and 3/4.2 which currently requires the determination of the reactor coolant system flow rate by precision heat balance measurement at least once per 18 months. Date of publication of individual notice in Federal Register: January 26, 1994 (59 FR 3743)

Expiration date of individual notice: February 25, 1994

Local Public Document Room location: York County Library, 138 East Black Street, Rock Hill, South Carolina 29730

Duke Power Company, Docket Nos. 50-269, 50-270 and 50-287, Oconee Nuclear Station, Units 1, 2 and 3, Oconee County, South Carolina

Date of amendment request: November 11, 1993, as supplemented November 22, 1993

Description of amendment request: The proposed amendments would provide an interim acceptance criteria for control rod drop time on Oconee Unit 1. Specifically, control rod Group 1, Rod 8, and Group 2, Rod 5, would be considered operable with an insertion time of less than or equal to 3.00 seconds provided that: (1) the average insertion time for the remaining rods in Group 1 and the average insertion time for the remaining rods in Group 2 is less than or equal to 1.5 seconds, and (2) the core average negative reactivity insertion rate is within the assumptions of the safety analysis. The acceptance criteria would apply until the end of the current fuel cycle for Oconee Unit 1. This acceptance criteria for rod drop time would apply for the two rods, rather than the existing Technical Specification 4.7.1 limit of 2.00 seconds from the fully withdrawn position to 3/4 insertion.Date of publication of individual notice in Federal Register: November 29, 1993 (58 FR 62689)

Expiration date of individual notice: December 29, 1993

Local Public Document Room location: Oconee County Library, 501 West South Broad Street, Walhalla, South Carolina 29691

Gulf States Utilities Company, Cajun Electric Power Cooperative, and Entergy Operations, Inc., Docket No. 50-458, River Bend Station, Unit 1, West Feliciana Parish, Louisiana

Date of application for amendment: December 8, 1993tI11tT3Brief description of amendment request: The proposed amendment would grant one-time extensions for certain Technical Specification surveillances which are currently required to be performed beginning February 16, 1994. The licensee is requesting extension of the surveillance intervals because the current operating cycle has been extended, impacting the required completion dates for these surveillances. Performance of these surveillances within the required intervals would require that the plant be placed in an undesirable operating configuration, or would necessitate a plant shutdown. The surveillances for which extensions have been requested will be performed during the fifth refueling outage, scheduled to begin on April 16, 1994.

Date of individual notice in **Federal Register:** January 18, 1994 (59 FR 2630)

Expiration date of individual notice: February 17, 1994

Local Public Document Room location: Government Documents Department, Louisiana State University, Baton Rouge, Louisiana 70803

Power Authority of the State of New York, Docket No. 50-333, James A. FitzPatrick Nuclear Power Plant, Oswego County, New York

Date of amendment request: December 22, 1993

Description of amendment request: The proposed amendment would add Limiting Conditions for Operation (LCO) and Surveillance Requirements to Tables 3.12.1, "Water Spray/Sprinkler Protected Areas," and 4.12.1, "Water Spray/Sprinkler Tests," and clarify the associated Bases to reflect the installation of a new full area fire suppression system in the east and west cable tunnels. This new full area fire suppression system was installed because the previous sprinkler system did not provide coverage to some cable trays and the sprinkler head orientation did not provide full coverage of the cable trays where it was installed. The proposed amendment would also correct other portions of Tables 3.12.1 and 4.12.1 for consistency with changes made to reflect the east and west cable tunnel modification.Date of publication of individual notice in **Federal Register:** January 18, 1994 (59 FR 2634)

Expiration date of individual notice: February 17, 1994

Local Public Document Room location: Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126.Notice Of Issuance Of Amendments To Facility Operating Licenses

During the period since publication of the last biweekly notice, the Commission has issued the following amendments. The Commission has determined for each of these amendments that the application complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for A Hearing in connection with these actions was published in the **Federal Register** as indicated.

Unless otherwise indicated, the Commission has determined that these amendments satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared for these amendments. If the Commission has prepared an environmental assessment under the special circumstances provision in 10 CFR 51.12(b) and has made a determination based on that assessment, it is so indicated.

For further details with respect to the action see (1) the applications for amendment, (2) the amendment, and (3) the Commission's related letter, Safety Evaluation and/or Environmental

Assessment as indicated. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document rooms for the particular facilities involved.

Duke Power Company, Docket Nos. 50-369 and 50-370, McGuire Nuclear Station, Units 1 and 2, Mecklenburg County, North Carolina

Date of application for amendments: October 28, 1992, as supplemented December 14, 1993

Brief description of amendments: The amendments remove Table 4.4-5, "Reactor Vessel Material Surveillance Program Withdrawal Schedule," from the McGuire Technical Specifications and make other administrative changes associated with the removal of the withdrawal schedule in accordance with NRC Generic Letter 91-01.

Date of issuance: January 31, 1994

Effective date: January 31, 1994

Amendment Nos.: 139 and 121

Facility Operating License Nos. NPF-9 and NPF-17: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** December 23, 1992 (57 FR 61112) The December 14, 1993, letter provided clarifying information that did not change the scope of the October 28, 1992, application and the initial proposed no significant hazards consideration determination.The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 31, 1994.No significant hazards consideration comments received: No.

Local Public Document Room location: Astkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina 28223

Duke Power Company, Docket Nos. 50-269, 50-270, and 50-287, Oconee Nuclear Station, Units 1, 2, and 3, Oconee County, South CarolinaDate of application of amendments: July 14, 1993, as supplemented August 24 and September 22, 1993

Brief description of amendments: The amendments revise TS 3.1.2.9 to clarify the role of High Pressure Injection and Core Flood Tank deactivation in maintaining pilot operated relief valve operability for low temperature overpressure protection (LTOP), add restrictions regarding applicability of controls which assure 10 minutes are available for operator action to mitigate an LTOP event, revise the pressure-temperature limits and associated LTOP setpoints, and make associated administrative changes. Also, the Bases would be revised to be consistent with the above changes.

The conformance of the upper shelf energy and reactor vessel material surveillance program to Appendices G and H will be determined pending the NRC staff resolution of Generic Letter 92-01 in 1994.

Date of issuance: January 25, 1994

Date of issuance: January 25, 1994

Effective date: To be issued within 30 days from the date of issuance

Amendment Nos.: 204, 204, and 201

Facility Operating License Nos. DPR-38, DPR-47, and DPR-55: The amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** September 1, 1993 (58 FR 46228) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 25, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Oconee County Library, 501 West South Broad Street, Walhalla, South Carolina 29691

Duquesne Light Company, et al., Docket Nos. 50-334 and 50-412, Beaver Valley Power Station, Unit Nos. 1 and 2, Shippingport, Pennsylvania

Date of application for amendments: February 19, 1993

Brief description of amendments: The amendments revise the Appendix A TSs 3.4.9.1, 3.4.9.2, and 4.4.9.2 relating to pressurizer surge line stratification.

Date of issuance: January 31, 1994

Effective date: January 31, 1994

Amendment Nos.: 179 and 59

Facility Operating License Nos. DPR-66 and NPF-73: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** Aspril 28, 1993 (58 FR 25854) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 31, 1994.No significant hazards consideration comments received: No.

Local Public Document Room location: B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001.

Entergy Operations, Inc., Docket No. 50-368, Arkansas Nuclear One,Unit No. 2, Pope County, Arkansas

Date of application for amendment: February 24, 1993

Brief description of amendment: The amendment revised the containment internal pressure lower limit of Technical Specification Figure 3.6-1 from 12.8 to 13.2 psia.

Date of issuance: February 3, 1994

Effective date: 30-days from date of issuance

Amendment No.: 156

Facility Operating License No. NPF-6. Amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** March 31, 1993 (58 FR 16858) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated February 3, 1994. No significant hazards consideration comments received: No.

Local Public Document Room location: Tomlinson Library, Arkansas Tech University, Russellville, Arkansas 72801.

Florida Power and Light Company, Docket Nos. 50-250 and 50-251, Turkey Point Plant Units 3 and 4, Dade County, Florida

Date of application for amendments: October 4, 1993

Brief description of amendments: The amendments revise the surveillance test schedule in TS 4.6.1.2a and the associated Bases for performing Type A test which determine the overall integrated containment leakage rate.

Date of issuance: January 11, 1994

Effective date: January 11, 1994Amendment Nos. 158, 152Facility Operating Licenses Nos. DPR-31 and DPR-41: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** November 10, 1993 (58 FR 59748) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 11, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Florida International University, University Park, Miami, Florida 33199.

Houston Lighting & Power Company, City Public Service Board of San Antonio, Central Power and Light Company, City of Austin, Texas, Docket No. 50-498, South Texas Project, Unit 1, Matagorda County, Texas

Date of amendment request: December 6, 1993

Brief description of amendments: The amendments modify Technical Specification 3.7.1.2 by extending the allowed outage time for the Unit 1 Train D turbine-driven auxiliary feedwater pump from 72 hours to 168 hours. This change is a one-time-only extension to accommodate an augmented test program for the turbine driven auxiliary feedwater pump during the restart of Unit 1 from the 1993 outage.

Date of issuance: January 25, 1994

Effective date: January 25, 1994, to be implemented within 10 days of issuance.

Amendment No.: 58

Facility Operating License No. NPF-76. Amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** December 22, 1993 (58 FR 67848). The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 25, 1994.No significant hazards consideration comments received: No.

Local Public Document Room location: Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton, Texas 77488

Illinois Power Company and Soyland Power Cooperative, Inc., Docket No. 50-461, Clinton Power Station, Unit No. 1, DeWitt County, Illinois

Date of application for amendment: November 4, 1993

Brief description of amendment: The amendment revises Clinton Technical Specification 3/4.8.1.1, "AC Sources - Operating," by relocating the surveillance requirement to inspect the diesel generators in accordance with the manufacturer's recommendations to the preventive maintenance program.

Date of issuance: January 31, 1994

Effective date: January 31, 1994

Amendment No.: 87

Facility Operating License No. NPF-62. The amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** December 8, 1993 (58 FR 64610) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 31, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: The Vespasian Warner Public Library District, 310 N. Quincy Street, Clinton, Illinois 61727.

Illinois Power Company and Soyland Power Cooperative, Inc., Docket No. 50-461, Clinton Power Station, Unit No. 1, DeWitt County, IllinoisDate of application for amendment: November 4, 1993

Brief description of amendment: The licensee proposed modifying Technical Specification 3/4.8.2.1, "DC Sources - Operating," by deleting the requirement that the plant be shut down to perform the required battery capacity or service testing. Following discussions with the licensee, the staff has modified the licensee's proposal and approved a one-time only change to permit replacement of the Division IV battery subsystem at power.

Date of issuance: February 2, 1994

Effective date: February 2, 1994

Amendment No.: 88

Facility Operating License No. NPF-62. The amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** December 8, 1993 (58 FR 64610) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated February 2, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: The Vespasian Warner Public Library, 120 West Johnson Street, Clinton, Illinois 61727.

Indiana Michigan Power Company, Docket No. 50-316, Donald C. Cook, Nuclear Plant, Unit No. 2, Berrien County, Michigan

Date of application for amendment: Aspril 16, 1993, as supplemented September 28 and December 3, 1993

Brief description of amendment: The amendment revises Technical Specifications to allow certain tests normally designated as 18-month surveillances to be delayed until the next refueling outage scheduled to begin August 6, 1994. Extensions for four groups of surveillances (Groups 1, 2, 6, 11) were previously approved for Unit 2 in Amendment 158 dated December 22, 1993. This amendment grants approval for the extensions requested for the remaining 12 groups of surveillances and completes the staff's review of the licensee's April 16, 1993 (as supplemented) application.

Date of issuance: January 26, 1994

Effective date: January 26, 1994

Amendment No.: 159

Facility Operating License No. DPR-74. Amendment revises the Technical Specifications. Dates of initial notice in **Federal Register:** Asugust 4, 1993 (58 FR 41505) and December 21, 1993 (58 FR 67850)The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 26, 1994. No significant hazards consideration comments received: No.

Local Public Document Room location: Maud Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085.Northeast Nuclear Energy Company, et al., Docket No. 50-336, Millstone Nuclear Power Station, Unit No. 2, New London County, Connecticut

Date of application for amendment: June 11, 1993, supplemented by letter dated November 15, 1993

Brief description of amendment: The amendment revises the pressure/temperature (P/T) limits for the reactor vessel. Specifically, Figure 3.4-2, "Millstone Unit 2 Reactor Coolant System Presure-Temperature Limitations for 12 Full Power Years," on page 3/4 4-19, is revised to reflect the change in the curves and the title change to "Millstone Unit 2 Reactor Coolant System Pressure-Temperature Limitations for 20 EFPY."

Date of issuance: January 27, 1994

Effective date: As of the date of issuance to be implemented within30 days.

Amendment No.: 170

Facility Operating License No. DPR-65. Amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** July 21, 1993 (58 FR 39054) The November 15, 1993, submittal provided information that did not change the initial proposed no significant hazards consideration determination. The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 27, 1994. No significant hazards consideration comments received: No.

Local Public Document Room location: Learning Resource Center, Three Rivers Community-Technical College, Thames Valley Campus, 574 New London Turnpike, Norwich, Connecticut 06360.

Pacific Gas and Electric Company, Docket Nos. 50-275 and 50-323, DiabloCanyon Nuclear Power Plant, Unit Nos. 1 and 2, San Luis Obispo County,California

Date of application for amendments: December 22, 1992, as supplemented July 19, 1993 (Reference LAR 92-08)

Brief description of amendments: The amendments revise the combined Technical Specifications (TS) for the Diablo Canyon Power Plant Unit Nos. 1 and 2. Specifically, TS Section 3/4.3.2, "Engineered Safety Features Actuation System Instrumentation," would be revised to change the second level undervoltage trip setpoint and allowable values. Technical Specification 3/4.8.1, "A.C. Sources," would also be changed to revise the diesel generator (DG) steady state voltage surveillance requirements. The second level undervoltage relay TS setpoint and allowable values will be changed to maintain acceptable voltages at the 480 volt and 120 volt buses during sustained degraded voltage conditions. The DG steady state voltage surveillance requirements will be changed to ensure that the diesel generators provide adequate voltage when required to power the vital loads.

Date of issuance: January 6, 1994

Effective date: 60 days from date of issuance

Amendment Nos.: 86 & 85

Facility Operating License Nos. DPR-80 and DPR-82: The amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** February 3, 1993 (58 FR 7002) The July 19, 1993 submittal provided clarifying information and did not affect the initial **Federal Register** notice and proposed no significant hazards consideration. The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 6, 1994No significant hazards consideration comments received: No.

Local Public Document Room location: California Polytechnic State University, Robert E. Kennedy Library, Government Documents and Maps Department, San Luis Obispo, California 93407.

Pacific Gas and Electric Company, Docket Nos. 50-275 and 50-323, Diablo Canyon Nuclear Power Plant, Unit Nos. 1 and 2, San Luis Obispo County,California

Date of application for amendments: July 6, 1993, as supplemented December 29, 1993 (Reference LAR 93-03)

Brief description of amendments: The amendments revise the combined Technical Specifications (TS) 3/4.3.2, "Engineered Safety Features Actuation System Instrumentation," Table 4.3-2, "Engineered Safety Features Actuation System Instrumentation Surveillance Requirements," for the Diablo Canyon Power Plant Unit Nos. 1 and 2 to relax the slave relay test frequency for slave relays K612A, K614B, K615A, and K615B from quarterly to once per 18 months during refueling or extended cold shutdowns. The affected slave relays cause isolation of the charging and letdown portions of the chemical and volume control system, and actuate charging pump suction valves associated with volume control tank and refueling water storage tank isolation.

Date of issuance: January 31, 1994

Effective date: For cycle 7 and after

Amendment Nos.: 87 and 86

Facility Operating License Nos. DPR-80 and DPR-82: The amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** Asugust 18, 1993 (58 FR 43929) The December 29, 1993, submittal provided clarifying information and did not effect the initial **Federal Register** Notice and proposed no significant hazards consideration.The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 31, 1994.No significan hazards consideration comments received: No.

Local Public Document Room location: California Polytechnic State University, Robert E. Kennedy Library, Government Documents and Maps Department, San Luis Obispo, California 93407.

Pennsylvania Power and Light Company, Docket Nos. 50-387 and 50-388 Susquehanna Steam Electric Station, Units 1 and 2, Luzerne County, Pennsylvania

Date of application for amendments: January 9, 1991, as supplemented on August 19, 1991, June 22, 1992 and August 3, 1992

Brief description of amendments: The amendment changed the Technical Specifications to revise the isolation setpoints for the ambient temperature switches for the High Pressure Coolant Injection and Reactor Core Isolation Cooling Systems room area coolers.

Date of issuance: January 31, 1993

Effective date: January 31, 1993

Amendment Nos.: 132 and 99

Facility Operating License Nos. NPF-14 and NPF-22. These amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** June 9, 1993 (58 FR 32389) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 31, 1993.No significant hazards consideration comments received: No

Local Public Document Room location: Osterhout Free Library, Reference Department, 71 South Franklin Street, Wilkes-Barre, Pennsylvania 18701.

Philadelphia Electric Company, Docket No. 50-353, Limerick Generating Station, Unit 2, Montgomery County, Pennsylvania

Date of application for amendment: Asugust 27, 1993, as supplemented November 10, and December 20, 1993

Brief description of amendment: The amendment allows a one-time TS change to extend the allowed outage time (AOTs) for the Unit 2 residual heat removal service water (RHRSW) system as well as the suppression pool spray and suppression pool cooling modes of the residual heat removal system from 72, 168 (i.e. seven days), and 72 hours, respectively, to 288 hours (i.e., twelve days). The extended AOTs would allow continued Unit 2 operation while maintenance isolation valves are installed on both loops of the RHRSW system.

Date of issuance: January 26, 1994

Effective date: January 26, 1994

Amendment No. 30

Facility Operating License No. NPF-85. This amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** September 29, 1993 (58 FR 50970) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 26, 1994. No significant hazards consideration comments received: No

Local Public Document Room location: Pottstown Public Library, 500 High Street, Pottstown, Pennsylvania 19464.

Philadelphia Electric Company, Public Service Electric and Gas CompanyDelmarva Power and Light Company, and Atlantic City Electric Company,Docket Nos. 50-277 and 50-278, Peach Bottom Atomic Power Station,Unit Nos. 2 and 3, York County, Pennsylvania

Date of application for amendments: October 5, 1993

Brief description of amendments: This amendment revised the Plant Operating Review Committee review, the Nuclear Review Board review, the Radiological Environmental Monitoring Program requirements, position titles, and the organization chart in Appendix B of the Technical Specifications (TS) to be consistent with Appendix A of the TS.

Date of issuance: January 26, 1994

Effective date: January 26, 1994Amendments Nos.: 183 and 188

Facility Operating License Nos. DPR-44 and DPR-56: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** December 8, 1993 (58 FR 64612) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 26, 1994. No significant hazards consideration comments received: No

Local Public Document Room location: Government Publications Section, State Library of Pennsylvania, (REGIONAL DEPOSITORY) Education Building, Walnut Street and Commonwealth Avenue, Box 1601, Harrisburg, Pennsylvania 17105.

Public Service Electric & Gas Company, Docket No. 50-354, Hope Creek Generating Station, Salem County, New Jersey

Date of application for amendment: February 2, 1993, and supplemented by letter dated November 16, 1993.

Brief description of amendment: The amendment extends the period of time to reduce the setpoints of the Average Power Range Monitors and the Rod Block Monitor when the plant enters single-loop operations. Additionally, the change incorporates updated core values relative to single loop operations and the addition of a new Specification 3.0.5 and its associated Bases.

Date of issuance: January 25, 1994

Effective date: As of date of issuance and shall be implemented within 60 days of the date of issuance.

Amendment No.: 63

Facility Operating License No. NPF-57: This amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** March 31, 1993 (58 FR 16872) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 25, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Pennsville Public Library, 190 S. Broadway, Pennsville, New Jersey 08070

Public Service Electric & Gas Company, Docket No. 50-354, Hope Creek Generating Station, Salem County, New Jersey

Date of application for amendment: May 21, 1993, as supplemented on October 29, 1993, and November 16, 1993; the staff's proposed finding of no significant hazards is not affected by these supplements.

Brief description of amendment: This amendment revises Technical Specifications surveillance requirement 4.4.2.2 to apply only to the pilot stage assembly of the safety relief valves (SRVs) and adds a new surveillance requirement which will require the main portion of the SRVs to be set pressure tested at least once every 5 years.

Date of issuance: January 27, 1994

Effective date: January 27, 1994

Amendment No.: 64

Facility Operating License No. NPF-57: This amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** Asugust 18, 1993 (58 FR 43931) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 27, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Pennsville Public Library, 190 S. Broadway, Pennsville, New Jersey 08070

Public Service Electric & Gas Company, Docket No. 50-354, Hope Creek Generating Station, Salem County, New Jersey

Date of application for amendment: May 21, 1993 as supplemented on August 23, 1993.

Brief description of amendment: This amendment revised a Technical Specification surveillance requirement to increase the voltage limit from 4580 to 4785 volts when performing the 18-month emergency diesel generator full load rejection test.

Date of issuance: February 4, 1994

Effective date: Effective as of date of issuance and to be implemented upon restart following fifth refueling outage currently scheduled to begin on March 5, 1994.

Amendment No.: 65

Facility Operating License No. NPF-57: This amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** June 23, 1993 (58 FR 34091) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated February 4, 1994. No significant hazards consideration comments received: No

Local Public Document Room location: Pennsville Public Library, 190 S. Broadway, Pennsville, New Jersey 08070

Public Service Electric & Gas Company, Docket No. 50-311, Salem Nuclear Generating Station, Unit No. 2, Salem County, New Jersey

Date of application for amendment: Asugust 30, 1993

Brief description of amendment: The amendment changes the main feedwater system containment isolation valves from the feedwater control and control bypass valves to the feedwater stop check valves.

Date of issuance: January 21, 1994

Effective date: As of date of issuance and shall be implemented within 60 days of the date of issuance

Amendment No. 128

Facility Operating License No. DPR-75: This amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** September 29, 1993 (58 FR50974) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 21, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Salem Free Public Library, 112 West Broadway, Salem, New Jersey 08079

Southern California Edison Company, et al., Docket Nos. 50-361 and 50-362, San Onofre Nuclear Generating Station, Unit Nos. 2 and 3, San Diego County, California

Date of application for amendments: November 25, 1991

Brief description of amendments: These amendments revise Technical Specification (TS) 3/4.7.8, "Fire Suppression Systems." This TS revision deletes the phrase "during shutdown" from the fire pump diesel engine surveillance requirement 4.7.8.1.2.c. This will allow the surveillance of the fire pump diesel engine to be performed when one or both Units 2 and 3 are in operation.

Date of issuance: February 1, 1994

Effective date: February 1, 1994

Amendment Nos.: 109 and 98

Facility Operating License Nos. NPF-10 and NPF-15: The amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** January 22, 1992 (57 FR 2600) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated February 1, 1994.No significant hazards consideration comments received: No.

Local Public Document Room location: Main Library, University of California, P. O. Box 19557, Irvine, California 92713.

Tennessee Valley Authority, Docket Nos. 50-259, 50-260 and 50-296, Browns Ferry Nuclear Plant, Units 1, 2 and 3, Limestone County, Alabama

Date of application for amendments: September 30, 1993 (TS 345)

Brief description of amendment: The amendment deletes conditions from the Browns Ferry Units 1, 2, and 3 licenses which require maintenance of positive access controls for the containment in accordance with 10 CFR 73.55(d)(8), and deletes a redundant condition from the Unit 3 license.

Date of issuance: February 1, 1994

Effective date: February 1, 1994

Amendment Nos.: 202 - Unit 1; 221 - Unit 2; 175 - Unit 3

Facility Operating License Nos. DPR-33, DPR-52 and DPR-68: Amendment revises the license conditions.

Date of initial notice in **Federal Register:** December 8, 1993 (58 FR 64616) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated February 1, 1994.No significant hazards consideration comments received: None

Local Public Document Room location: Asthens Public Library, South Street, Athens, Alabama 35611.

Toledo Edison Company, Centerior Service Company, and The Cleveland Electric Illuminating Company, Docket No. 50-346, Davis-Besse Nuclear Power Station, Unit No. 1, Ottawa County, Ohio

Date of application for amendment: May 6, 1993

Brief description of amendment: The amendment revises the reporting frequency requirements from semiannual to annual for submission to the NRC of the Radioactive Effluent Release Report, and clarifies the

reporting requirements regarding steam generator tube inspection Category C-3 results.

Date of issuance: December 30, 1993
Effective date: December 30, 1993
Amendment No.: 184
Facility Operating License No. NPF-3. Amendment revised the Technical Specifications.

Date of initial notice in **Federal Register:** June 23, 1993 (58 FR 34096) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated December 30, 1993.No significant hazards consideration comments received: No

Local Public Document Room location: University of Toledo Library, Documents Department, 2801 Bancroft Avenue, Toledo, Ohio 43606.

Virginia Electric and Power Company, Docket Nos. 50-280 and 50-281, Surry Power Station, Unit Nos. 1 and 2, Surry County, Virginia.

Date of application for amendments: July 16, 1993, as supplemented November 15, 1993. The November 15, 1993, submittal did not expand the scope of the original application and did not change the proposed no significant hazards consideration determination.

Brief description of amendments: These amendments implement the revised 10 CFR Part 20, Standards for Protection Against Radiation, and reflect revisions to 10 CFR 50.36a.

Date of issuance: January 25, 1994
Effective date: January 25, 1994
Amendment Nos. 185 and 185
Facility Operating License Nos. DPR-32 and DPR-37: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** Asugust 18, 1993 (58 FR 43937) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated January 25, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Swem Library, College of William and Mary, Williamsburg, Virginia 23185.

Virginia Electric and Power Company, Docket Nos. 50-280 and 50-281, Surry Power Station, Unit Nos. 1 and 2, Surry County, Virginia.

Date of application for amendments: March 19, 1993, as supplemented December 9, 1993.

Brief description of amendments: These amendments address plant operation with a control rod urgent alarm failure, a change in the control rod assembly partial movement surveillance test frequency, and proposed administrative changes.

Date of issuance: February 4, 1994
Effective date: February 4, 1994
Amendment Nos. 186 and 186
Facility Operating License Nos. DPR-32 and DPR-37: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** May 12, 1993 (58 FR 28064) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated February 4, 1994.No significant hazards consideration comments received: No

Local Public Document Room location: Swem Library, College of William and Mary, Williamsburg, Virginia 23185.

Wisconsin Electric Power Company, Docket Nos. 50-266 and 50-301 Point Beach Nuclear Plant, Unit Nos. 1 and 2, Town of Two Creeks, Manitowoc County, Wisconsin

Date of application for amendments: January 14, 1993

Brief description of amendments: The amendments split Technical Specification (TS) 15.3.1.E.2, which defines the allowable limits of chloride and fluoride in the reactor coolant, into two individual Limiting Conditions for Operation (LCOs), thus clarifying the reactor coolant chemistry limitations. In addition, the amendments added a 24-hour hot shutdown action statement to the reactor coolant impurity limit LCOs. The amendments also modified the corresponding TS Bases Section.

Date of issuance: January 27, 1994
Effective date: January 27, 1994
Amendment Nos.: 145 and 149
Facility Operating License Nos. DPR-24 and DPR-27: Amendments revised the Technical Specifications.

Date of initial notice in **Federal Register:** March 3, 1993 (58 FR 12270) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated January 27, 1994. No significant hazards consideration comments received: No.

Local Public Document Room location: Joseph P. Mann Library, 1516 Sixteenth Street, Two Rivers, Wisconsin 54241.

Notice Of Issuance Of Amendments To Facility Operating Licenses And Final Determination Of No Significant Hazards Consideration And Opportunity For A Hearing (Exigent Public Announcement Or Emergency Circumstances)

During the period since publication of the last biweekly notice, the Commission has issued the following amendments. The Commission has determined for each of these amendments that the application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Because of exigent or emergency circumstances associated with the date the amendment was needed, there was not time for the Commission to publish, for public comment before issuance, its usual 30-day Notice of Consideration of Issuance of Amendment, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing.

For exigent circumstances, the Commission has either issued a **Federal Register** notice providing opportunity for public comment or has used local media to provide notice to the public in the area surrounding a licensee's facility of the licensee's application and of the Commission's proposed determination of no significant hazards consideration. The Commission has provided a reasonable opportunity for the public to comment, using its best efforts to make available to the public means of communication for the public to respond quickly, and in the case of telephone comments, the comments have been recorded or transcribed as appropriate and the licensee has been informed of the public comments.

In circumstances where failure to act in a timely way would have resulted, for example, in derating or shutdown of a nuclear power plant or in prevention of either resumption of operation or of increase in power output up to the plant's licensed power level, the Commission may not have had an opportunity to provide for public comment on its no significant hazards consideration determination. In such case, the license amendment has been issued without opportunity for comment. If there has been some time for public comment but less than 30 days, the Commission may provide an opportunity for public comment. If comments have been requested, it is so stated. In either event, the State has been consulted by telephone whenever possible.

Under its regulations, the Commission may issue and make an amendment immediately effective, notwithstanding the pendency before it of a request for a hearing from any person, in advance of the holding and completion of any required hearing, where it has determined that no significant hazards consideration is involved.

The Commission has applied the standards of 10 CFR 50.92 and has made a final determination that the amendment involves no significant hazards consideration. The basis for this determination is contained in the documents related to this action. Accordingly, the amendments have been issued and made effective as indicated.

Unless otherwise indicated, the Commission has determined that these amendments satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared for these amendments. If the Commission has prepared an environmental assessment under the special circumstances provision in 10 CFR 51.12(b) and has made a determination based on that assessment, it is so indicated.

For further details with respect to the action see (1) the application for amendment, (2) the amendment to Facility Operating License, and (3) the Commission's related letter, Safety Evaluation and/or Environmental Assessment, as indicated. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the local public document room for the particular facility involved.

The Commission is also offering an opportunity for a hearing with respect to the issuance of the amendment. By March 18, 1994, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license 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 written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition 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. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room for the particular facility involved. If a request for a 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 a 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 in the proceeding 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 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 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. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. 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. Since the Commission has made a final determination that the amendment involves no significant hazards consideration, if a hearing is requested, it will not stay the effectiveness of the amendment. Any hearing held would take place while the amendment is in effect.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, by the above date. Where petitions are filed during the last 10 days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to **(Project Director):** petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this **Federal Register** notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for a hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

Gulf States Utilities Company, Cajun Electric Power Cooperative, and Entergy Operations, Inc., Docket No. 50-458, River Bend Station, Unit 1, West Feliciana Parish, Louisiana

Date of amendment request: November 18, 1993, as supplemented by letter dated December 21, 1993.

Brief description of amendment: The amendment revises the River Bend, Unit 1 Technical Specifications to permit extending the time to perform leak rate testing of certain containment isolation

valves and pressure isolation valves so that the testing can be performed during the refueling outage scheduled to start April 16, 1994, rather than requiring an earlier shutdown solely to perform the testing. Also, an exemption to 10 CFR Appendix J was issued on February 2, 1994, that provides an extension, consistent with the revision to the technical specifications, to allow the testing of containment isolation valves to be delayed until the refueling outage.

Date of issuance: February 2, 1994

Effective date: February 2, 1994

Amendment No.: Asmendment No. 71

Facility Operating License No. NPF-47: The amendment revised the Technical Specifications. Public comments requested as to proposed no significant hazards consideration: Yes. January 5, 1994 (59 FR 616)The Commission's related evaluation of the amendment, finding of emergency circumstances, and final determination of no significant hazards consideration are contained in a Safety Evaluation dated February 2, 1994.

Attorney for licensee: Mark Wetterhahn, Esq., Bishop, Cook, Purcell and Reynolds, 1401 L Street, NW., Washington, D.C. 20005

Local Public Document Room location: Government Documents Department, Louisiana State University, Baton Rouge, Louisiana 70803.

Pennsylvania Power and Light Company, Docket No. 50-388, Susquehanna Steam Electric Station, Unit 2, Luzerne County, Pennsylvania

Date of application for amendment: January 24, 1994

Brief description of amendment: The amendment revised the applicability requirement in Sections 3.0.4, 4.0.4, 3.3.7.5 Action 80, 4.3.7.5, 3.4.2 Action c, and 4.4.2 of the Technical Specifications to permit Susquehanna, Unit 2 to continue to operate with the acoustic monitor on the "S" safety/relief valve tailpipe inoperable.

Date of issuance: January 31, 1994

Date of issuance: January 31, 1994

Effective date: As of its date of issuance and will remain in effect until the next shutdown of sufficient duration to allow for containment entry, not to exceed the sixth refueling and inspection outage.

Amendment No.: 100

Facility Operating License No. NPF-22: Amendment revised the Technical Specifications. Public comments requested as to proposed no significant hazards consideration: No. On January 27, 1994, the staff issued a Notice of Enforcement Discretion, which was immediately effective and remained in effect until this amendment was issued.

The Commission's related evaluation of the amendment, finding of emergency circumstances, consultation with the Commonwealth of Pennsylvania and final no significant hazards considerations determination are contained in a Safety Evaluation dated January 31, 1994.

Attorney for licensee: Jay Silberg, Esq., Shaw, Pittman, Potts & Trowbridge 2300 N Street NW., Washington, D.C. 20037

Local Public Document Room location: Osterhout Free Library, Reference Department, 71 South Franklin Street, Wilkes-Barre, Pennsylvania 18071.

Washington Public Power Supply System, Docket No. 50-397, Nuclear Project No. 2, Benton County, Washington

Date of application for amendment: January 13, 1994

Brief description of amendment: The amendment modified the Technical Specifications (TS) to defer response time testing for low pressure emergency core cooling systems (ECCS) until startup following the next cold shutdown, but not later than the startup following completion of the spring 1994 refueling outage.

Date of issuance: January 31, 1994

Effective date: January 31, 1994

Amendment No.: 120

Facility Operating License No. NPF-21: The amendment revised the Technical Specifications. Public comments on proposed no significant hazards consideration comments received: No. The Commission's related evaluation of the amendment, finding of emergency circumstances, and final determination of no significant hazards consideration are contained in a Safety Evaluation dated January 31, 1994.

Local Public Document Room location: Richland Public Library, 955 Northgate Street, Richland, Washington 99352

Attorney for licensee: M. H. Philips, Jr., Esq., Winston & Strawn, 1400 L Street, N.W., Washington, D.C. 20005-3502.

NRC Project Director: The odore R. Quay

Dated at Rockville, Maryland, this

For the Nuclear Regulatory Commission

Robert A. Capra,

Acting Director, Division of Reactor Projects -I/II, Office of Nuclear Reactor Regulation

[Doc. 94-3465 Filed 2-15-94; 8:45 am]

BILLING CODE 7590-01-F

POSTAL RATE COMMISSION

Briefing by NAA

February 10, 1994.

Notice is hereby given that on February 28, 1994, members of the Commission and staff will be briefed by Newspaper Association of America on current trends in the newspaper industry. The briefing will be conducted at the Commission's Washington, DC office.

Anyone seeking further information, or wishing to attend, should contact Charles L. Clapp, Secretary of the Commission, at 202–789–6840.

Charles L. Clapp,

Secretary.

[FR Doc. 94–3557 Filed 2–15–94; 8:45 am]

BILLING CODE 7710–FW–P

ADVO, et al.; Cancellation of Visit

February 8, 1994.

Notice is hereby given that the Commission visits previously scheduled for February 8, 9, and 10, 1994, notice of which was published on February 2, 1994 (59 FR 4958), had to be cancelled due to weather conditions. In lieu of one of the intended visits, representatives of ADVO, Inc. made an oral presentation to members of the Commission and staff in the Commission's offices in Washington, DC on the afternoon of February 8, 1994. A report on the presentation will be on file in the Commission's Docket Room.

Charles L. Clapp,

Secretary.

[FR Doc. 94–3558 Filed 2–15–94; 8:45 am]

BILLING CODE 7710–FW–P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 20068; 812–8560]

The Seven Seas Series Fund, et al.; Application for Exemption

February 10, 1994

AGENCY: Securities and Exchange Commission ("SEC").

ACTION: Notice of application for exemption under the Investment Company Act of 1940 (the "Act").

APPLICANTS; The Seven Seas Series Fund (the "Investment Company"), State Street Bank and Trust Company ("State Street"), Russell Fund Distributors, Inc. ("RFD") and Frank Russell Investment Management Company ("FRIMCo").

RELEVANT ACT SECTIONS; Order requested under section 6(c) of the Act for

conditional exemptions from sections 2(a)(32), 2(a)(35), 18(f), 18(g), 18(i), 22(c), and 22(d) of the Act and rule 22c–1 thereunder.

SUMMARY OF APPLICATION: Applicants seek an order that would end the Investment Company and all future open-end investment companies and series thereof that are advised by State Street and that are in the same group of investment companies, to issue an unlimited number of separate classes of securities representing interests in some or all of the existing and future series of the Investment Company, and to assess a contingent deferred sales load ("CDSL") on certain redemptions of shares, and, under certain circumstances, to waive the CDSL.

FILING DATE: The application was filed on September 2, 1993, and amended on December 15, 1993. Counsel, on behalf of applicants, has agreed to file a further amendment during the notice period to make certain technical changes. This notice reflects the changes to be made to the application by such further amendment.

HEARING OR NOTIFICATION OF HEARING: An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on March 7, 1994, and should be accompanied by proof of service on applicants, in the form of an affidavit, or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

ADDRESSES: Secretary, SEC, 450 Fifth Street NW., Washington, DC 20549. The Seven Seas Series Fund and Russell Fund Distributors, Inc., Two International Place, 34th Floor, Boston, Massachusetts 02110; State Street Bank and Trust Company, 225 Franklin Street, Boston, Massachusetts 02110; J. David Griswold, Frank Russell Investment Management Company, 909 A Street, Tacoma, Washington 98402.

FOR FURTHER INFORMATION CONTACT: Joseph G. Mari, Senior Special Counsel (202) 272–3030, or Barry D. Miller, Senior Special Counsel, (202) 272–3018 (Division of Investment Management, Office of Investment Company Regulation).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch.

Applicants' Representations

1. The Investment Company is a Massachusetts business trust registered under the Act as an open-end management investment company. The Investment Company is a series company and consists of fourteen separate funds, each of which has separate investment objectives and policies (the "Funds").[1] FRIMCo is the administrator, State Street is the adviser, custodian, and transfer agent, and RFD is the distributor of the Investment Company. The Funds consist of both money market funds and funds with fluctuating net asset values, the shares of which are sold and redeemed daily at net asset value without a sales or redemption charge.

2. Applicants seek the requested relief on behalf of the Funds, and all future investment companies that are advised by State Street and that are in the same "group of investment companies" as defined in rule 11a–3 under the Act.

A. Multi-Class System

1. Applicants propose to create a multi-class distribution system (the "Multi-Class System"). The Investment Company would be permitted to offer an unlimited number of classes of additional classes of shares ("New Shares") in connection with (a) the existing distribution plan adopted pursuant to section 12b–1 under the Act (the "Distribution Plan"); (b) a services plan adopted pursuant to rule 12b–1 under the Act providing for certain shareholder services which may be in lieu of or in addition to, the Distribution Plan (the "Services Plan"); and/or (c) a non-rule 12b–1 administrative plan (the "Shareholder Administrative Plan"); or (d) with No Distribution Plan, Services Plan, or Shareholder Administrative Plan (collectively, the "Plans"). The New Shares would be subject to the same investment objective, policies and limitations as the Investment Company's existing shares. Applicants also propose to assess a CDSL on certain redemptions of shares and to waive the CDSL under certain circumstances.

2. Regarding each class of New Shares, the Investment Company could enter into a Services Plan agreement and/or a Shareholder Administrative Plan agreement (the "Plan Agreements") with the distributor and/or groups, organizations or institutions such as banking organizations, broker-dealers, trade associations, membership organizations, investment advisers and managers, financial planners and pension plans ("Organizations") concerning the provision of certain services to the clients, members, or customers of such Organizations who from time to time own New Shares which are offered in connection with a particular class ("Class Shareholders").

3. The services provided pursuant to the Plans will augment or replace (and not be duplicative of) the services to be provided to the Funds by FRIMCo, RFD and State Street. Applicants propose to "unbundle" the services to be provided to the Funds to permit Organizations to select those services they wish to provide to their Class Shareholders under the Plan Agreements, with the precise services to be rendered to be tailored to their Class Shareholders' needs.

4. Regarding each class of New Shares, the applicable Fund would pay the distributor and/or an Organization for its services and assistance in accordance with the terms of its particular Plan Agreement (the "Plan Payments") and the expense of such payments would be borne entirely by the owners of the class of shares of the Fund to which each Plan Agreement relates. Plan Payments will not exceed the limits imposed under article III, section 26 of the Rules of Fair Practice of the National Association of Securities Dealers ("NASD") for the class. To assure that the limit is not exceeded, each Plan Agreement would include a "cap" or other similar provision limiting the amount of Plan Payments payable under each Plan and across all Plans.

5. Expenses of the Investment Company that cannot be attributed directly to any one Fund will be allocated to each Fund based on the relative net assets of such Fund. Expenses that may be attributable to a Fund but not to a particular class will be allocated to a class based on the relative percentage of net assets of such class. Each class will bear certain expenses attributable specifically to such class, as set forth in condition 1 below ("Class Expenses").

6. New Shares of certain classes ("Class B Shares") could convert automatically into New Shares of another second class ("Class A Shares") at the end of a fixed period following the purchase of Class B Shares (the "Conversion Period"). New Shares purchased through the reinvestment of dividends and other distributions paid regarding Class B shares also will be Class B Shares. Such Class B Shares will

[1] As used in the application, the term "Fund" includes funds created by future investment companies.

convert to Class A Shares on the earlier of the end of the Conversion Period from the date of such reinvestment purchase, or the conversion date of the most recently purchased Class B Shares which were not acquired through the reinvestment of dividends or other distributions.

7. The conversion of Class B Shares to Class A Shares is subject to the availability of an opinion of counsel or Internal Revenue Service private letter ruling that the conversion of the Class B Shares does not constitute a taxable event under federal income tax law. The conversion of Class B shares to Class A shares may be suspended if such a ruling or opinion no longer is available.

8. Fund shareholders generally will be limited to exchanging shares for a similar class of shares of another Fund of the Investment Company. Any exceptions to this policy will be disclosed in the appropriate prospectuses, and in all events, the Investment Company's exchange policy will comply with rule 11a–3 under the Act.

B. The CDSL

1. Applicants also propose to assess a CDSL on certain redemptions of shares and to waive the CDSL under certain circumstances. The amount of the CDSL will vary, depending on the length of time the shares have been held. The CDSL typically will be 1%, but can range up to 8.5% on shares redeemed within the first year of purchase. Applicants will comply with article III, section 26 of the NASD's Rules of Fair Practice, regarding any sales charges and asset-based distribution charges. The CDSL may be reduced during the applicable CDSL period, so that redemptions of shares held after that period would not be subject to any CDSL. A CDSL will not be imposed on any shares issued prior to the date of the order granting exemptive relief.

2. The CDSL would not be imposed on redemptions of shares that were purchased in connection with the reinvestment of dividends. Furthermore, no CDSL would be imposed on an amount which represents an increase in the value of the shareholder's account resulting from capital appreciation above the amount paid for the shares purchased during the CDSL period. In determining whether a CDSL is applicable, a redemption would be made first of shares derived from reinvestment of distributions, second of shares derived from reinvestment of distributions, second of shares purchased prior to the CDSL period, and third, of shares purchased during the CDSL period. The amount of the CDSL will be calculated as the lesser of the amount that represents a specified percentage of the net asset value of the shares at the time of purchase, or the amount that represents the percentage of the net asset value of the shares at the time of redemption.

3. The CDSL would be waived (a) on redemptions following the death or disability, as defined in section 72(m)(7) of the Internal Revenue Code, of a shareholder, (b) in connection with distributions from an individual retirement account or other qualified retirement plan following death, total or permanent disability or reaching retirement age, (c) on redemptions effected pursuant to a Fund's right to liquidate a shareholder's account if the aggregate net asset value of shares held in the account is less than the minimum account size, and (d) in connection with shares sold to customers of State Street, Trustees and officers of Investment Company, and employees and retirees of State Street, RFD, and the Administrator.

Applicants' Legal Analysis

1. Applicants request an exemptive order pursuant to section 6(c) of the Act to the extent the proposed issuance and sale of New Shares might be deemed: (a) To result in a "senior security" within the meaning of section 18(g) of the Act and to be prohibited by section 18(f)(1) of the Act, and (b) to violate the equal voting provisions of section 18(i) of the Act.

2. The proposed allocation of expenses and voting rights relating to the Plans in the manner described is equitable and would not discriminate against any group of shareholders. The proposed arrangement does not involve borrowing and does not affect a Fund's existing assets or reserves; nor will it increase the speculative character of the shares of a Fund, since all shares will participate *pro rata* in all of the Fund's income and expenses, except for the proposed Plan Payments and Class Expenses.

3. Since all shares of a Fund will be redeemable at all times; since no class of shares will have any preference or priority over any other class in the Fund in that no class will have distribution or liquidation preferences regarding particular assets and no class will be protected by any reserve or other account; and since the similarities and differences of the shares will be disclosed fully in the prospectus for each class of the Fund, investors will not be given misleading impressions regarding the safety or risk of the shares, and the nature of the shares will not be rendered speculative.

4. Applicants request an exemption from sections 2(a)(32), 2(a)(35), 22(c), and 22(d) of the Act and rule 22c–1 thereunder, to the extent necessary to permit the Funds to assess a CDSL on certain redemptions of shares, and waive the CDSL in certain instances.

5. Applicants submit that the proposed CDSL arrangement is fair, consistent with the policy and provisions of the Act, and is in the best interests of the shareholders upon whom it will be imposed. The imposition of the CDSL will not prevent a redeeming shareholder from receiving its proportionate share of the current net assets of fund or class, but merely will defer the deduction of a sales charge and make it contingent upon an event which may never occur. Additionally, the deferral of the sales charge and its contingency upon the occurrence of an event which may not occur, does not change the basis nature of this charge, which is in every other respect a sales charge.

Applicants' Conditions

Applicants agree that the order of the Commission granting the requested relief shall be subject to the following conditions.

A. Multi-Class System

1. Each class of shares of a Fund representing interests in the same portfolio of investments of the Fund will be identical in all respects, except for the differences related to: (a) The designation of each class of shares of the Fund; (b) expenses assessed to a class pursuant to the Plans; (c) certain Class Expenses for each class of shares, which would be limited to: (i) transfer agent fees identified by the transfer agent as being attributable to a specific class of shares; (ii) printing and postage expenses related to preparing and distributing materials such as shareholder reports, prospectuses, and proxies to current shareholders of a specific class; (iii) blue sky registration fees incurred by a class of shares; (iv) SEC registration fees incurred by a class of shares; (v) the expenses of the Investment Company's administrator and other administrative personnel for services required to support the shareholders of a specific class; (vi) litigation or other legal expenses relating solely to a specific class of shares (vii) trustees' fees incurred as a result of issues relating to a specific class of shares; (viii) organizational expenses incurred to establish a specific class of shares; and (ix) independent accountants' fees related solely to a specific class of shares; (d) voting rights as to matters exclusively affecting the

class except as provided in condition 15; (e) exchange privileges; and (f) the conversion features of certain classes of New Shares. Any additional incremental expenses not specifically identified above that are subsequently identified and determined to be properly allocated to one class of shares shall not be so allocated until approved by the SEC pursuant to an amended order.

2. The trustees of the Investment Company, including a majority of the trustees who are not interested persons of the Investment Company ("independent trustees"), will approve the Multi-Class System. The minutes of the meetings of the trustees regarding the deliberations of he trustees with respect to the approvals necessary to implement the Multi-Class System will reflect in detail the reasons for the Trustees' determination that the proposed Multi-Class System is in the best interests of the Investment Company, the Funds, and shareholders.

3. The initial determination of the Class Expenses, if any, that will be allocated to a particular class and any subsequent changes thereto will be reviewed and approved by a vote of the board of trustees of the Investment Company, including a majority of the independent trustees. Any person authorized to direct the allocation and disposition of monies paid or payable by a Fund to meet Class Expenses shall provide to the board of trustees, and the trustees shall review, at least quarterly, a written report of the amounts so expended and the purposes for which such expenditures were made.

4. On an ongoing basis, the trustees, pursuant to their fiduciary responsibilities under the Act and otherwise, will monitor the Funds for the existence of any material conflicts among the interests of the various classes of shares. The trustees, including a majority of the independent trustees, shall take such action as is reasonably necessary to eliminate any such conflicts that may develop. The investment adviser and distributor of the Investment Company will be responsible for reporting any potential or existing conflicts to the trustees. If a conflict arises, the investment adviser and the distributor, at their own cost, will remedy such conflict, up to and including establishing a new registered management investment company.

5. The Investment Company's distributor will adopt compliance standards as to when each class of shares may be sold to particular investors. Applicants will require all person selling shares of the Investment Company to agree to conform to such standards.

6. The Shareholder Administrative Plan will be adopted and operated in accordance with the Procedures set forth in rule 12b–1 (b) through (f) as if the expenditures made thereunder were subject to rule 12b–1, except that shareholders need not enjoy the voting rights specified in rule 12b–1.

7. The trustees will receive quarterly and annual statements concerning the amounts expended under the Plans and the related Plan Agreements complying with paragraph (b)(3)(ii) of rule 12b-1, as it may be amended from time to time. In the statements, only expenditures properly attributable to the sale or servicing of a particular class of shares will be used to justify any distribution or servicing fee charged to that class. Expenditures not related to the sale or servicing of a particular class will not be presented to the trustees to justify any fee attributable to that class. The statements, including the allocation upon which they are based, will be subject to the review and approval of the independent trustees in the exercise of their fiduciary duties.

8. Dividends paid by a Fund regarding a class of shares will be calculated in the same manner, at the same time, on the same day and will be in the same amount as dividends paid by that Fund, except that Plan Payments made by a class under its Plan and any Class Expenses will be borne exclusively by the affected class.

9. The methodology and procedures for calculating the net asset value and dividends/distributions of the various classes and the proper allocation of expenses among the classes has been reviewed by an expert (the "Expert") who has rendered a report to the applicants, which report has been provided to the staff of the SEC, that such methodology and procedures are adequate to ensure that such calculations and allocations would be made in an appropriate manner. On an ongoing basis, the Expert, or an appropriate substitute Expert, will monitor the manner in which the calculations and allocations are being made and, based upon such review, will render at least annually a report to the Investment Company that the calculations and allocations are being made properly. The reports of the Expert will be filed as part of the periodic reports filed with the SEC pursuant to sections 30(a) and 30(b)(1) of the Act and the work papers of the Expert with respect to such reports, following a request by the Investment Company (which the Investment Company agrees to provide), will be available for inspection by the SEC staff upon the written request by a senior member of the SEC's Division of Investment Management or a Regional Office of the SEC. Authorized staff members would be limited to the Director, an Associate Director, the Chief Accountant, the Chief Financial Analyst, an Assistant Director, and any Regional Administrators or Associate and Assistant Administrators. The initial report of the Expert is a "report on policies and procedures placed in operation" and the ongoing reports will be "reports on policies and procedures placed in operation and tests of operating effectiveness" as defined and described in Statement of Auditing Standards No. 70 of the American Institute of Certified Public Accountants ("AICPA"), as it may be amended from time to time, or in similar auditing standards as may be adopted by the AICPA from time to time.

10. Applicants have adequate facilities in place to ensure implementation of the methodology and procedures for calculating the net asset value and dividends/distributions of the classes of shares and the proper allocation of expenses among the classes of shares, and this representation has been concurred with by the Expert in the initial report referred to in condition 9 above and will be concurred with by the Expert, or an appropriate substitute Expert, on an ongoing basis at least annually in the ongoing reports referred to in that condition. Applicants will take immediate corrective action if the Exert, or appropriate substitute Expert, does not so concur in the ongoing reports.

11. The prospectuses of each class of a Fund will include a statement to the effect that a salesperson and any other person entitled to receive compensation for selling or servicing Fund shares may receive different compensation with respect to one particular class of shares over another in the Fund.

12. The conditions pursuant to which the exemptive order is granted and the duties and responsibilities of the trustees with respect to the Multi-Class System will be set forth in guidelines to be furnished to the trustees.

13. A Fund will disclose the respective expenses, performance data, distribution arrangements, services, fees, sales loads, CDSLs, and exchange privileges (if any) applicable to each class of shares in every prospectus, regardless of whether all classes of shares are offered through each prospectus. A Fund will disclose the respective expenses and performance data applicable to all classes of shares in every shareholder report. The

shareholder reports will contain, in the statement of assets and liabilities and statement of operations, information related to the Fund as a whole generally and not on a per class basis. Each Fund's per share data, however, will be prepared on a per class basis with respect to all classes of shares of the Fund. To the extent that any advertisement or sales literature describes the expenses or performance data applicable to any class of shares of a Fund, it will also disclose the respective expenses and/or performance data applicable to all classes of shares of a Fund. The information provided by applicants for publication in any newspaper, or similar listing of a Fund's net asset value or public offering price, will present each class of shares separately.

14. Any class of shares with a conversion feature will convert into another class of shares on the basis of the relative net asset value of the two classes, without the imposition of any sales load, fee or other charge. After conversion, the converted shares will be subject to an asset-based sales charge and/or service fee (as those terms are defined in article III, section 26 of the NASD's Rules of Fair Practice), if any, that in the aggregate are lower than the asset-based sales charge and service fee to which they were subject prior to the conversion.

15. If a Fund implements any amendment to its rule 12b–1 plan with respect to any class of shares (or, if presented to shareholders, adopts or implements any amendment of a Shareholder Administrative Plan) that would increase materially the amount that may be borne by that class under the Plan ("Class A Shares" for purposes of this section), existing shares of another class ("Class B Shares" for purposes of this section) convertible into Class A Shares will stop converting into Class A Shares unless the Class B shareholders, voting separately as a class, approve the proposal. The trustees shall take such action as is necessary to ensure that existing Class B Shares are exchanged or converted into a new class of shares ("New Class A" for purposes of this section), identical in all material respects to Class A as it existed prior to implementation of the proposal, no later than such shares previously were scheduled to convert into Class A. If deemed advisable by the trustees to implement the foregoing, such action may include the exchange of all existing Class B Shares for a new class ("New Class B" for purposes of this section), identical to existing Class B Shares in all material respects except that New Class B will convert into New Class A. New Class A or New Class B may be formed without further exemptive relief. Exchanges or conversions described in this condition shall be effected in a manner that the trustees reasonably believe will not be subject to federal taxation. In accordance with condition 4 of this application, any additional cost associated with the creation, exchange, or conversion of New Class A or New Class B shares shall be borne solely by the adviser and the distributor of the Investment Company. Class B Shares sold after the implementation of the proposal may convert to Class A Shares subject to the higher maximum amount, provided that the material features of the Class A plan and the relationship of such plan to the Class B Shares are disclosed in an effective registration statement.

16. Applicants acknowledge that the grant of the requested exemptive order does not imply SEC approval, authorization of or acquiescence in any particular level of payments that a Fund may make pursuant to any Plan in reliance on the exemptive order.

B. The CDSL

Applicants expressly agree that they will comply with proposed rule 6c–10 under the Act, Investment Company Act Release No. 16619 (Nov. 2, 1988, as such rule is currently proposed and as it may be reproposed, adopted or amended in the future.

For the SEC, by the Division of Investment Management, under delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 94–3552 Filed 2–15–94; 8:45 am]

BILLING CODE 8010–01–M

Sunshine Act Meetings

Federal Register
Vol. 59, No. 32
Wednesday, February 16, 1994

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).

FEDERAL ENERGY REGULATORY COMMISSION

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: February 3, 1994, 59 FR 5668.

PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING: February 9, 1994, 2:00 p.m.

CHANGE IN THE MEETING: The following Docket Number has been added to Item CAE–2 on the Agenda scheduled for February 9, 1994.

Item No., Docket No., and Company

CAE–2—EL94–13–001, Entergy Services, Inc. and Gulf States Utilities Company

Lois D. Cashell,

Secretary.

[FR Doc. 94–3636 Filed 2–14–94; 8:45 pm]

BILLING CODE 6717–01–M

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

TIME AND DATE: 10:00 a.m., Thursday, February 17, 1994.

PLACE: 11th Floor, 1730 K Street, N.W., Washington, D.C.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will consider and act upon the following.

1. *Spurlock Mining Co., Inc. & Sarah Ashley Mining Co., Inc.*, Docket No. KENT 92–306, etc. (Issues include whether the judge properly considered the effect of assessed civil penalties on the mine operators' ability to continue in business, under 30 U.S.C. § 820(i), given that they are no longer in business.)

Any person attending this meeting who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 29 CFR 2706.150(a)(3) and 2706.160(e).

CONTACT PERSON FOR MORE INFO: Jean Ellen (202) 653–5629/(202) 708–9300 for TDD Relay/1–800–877–8339 for toll free.

Dated: February 9, 1994.

Jean H. Ellen,

Chief Docket Clerk.

[FR Doc. 94–3676 Filed 2–14–94; 2.13 pm]

BILLING CODE 6735–01–M

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

TIME AND DATE: 10:00 a.m., Tuesday, February 22, 1994.

PLACE: Marriner S. Eccles Federal Reserve Board Building, C Street entrance between 20th and 21st Streets, N.W., 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. You may call (202) 452–3207, beginning at approximately 5 p.m. two business days before this meeting, for a recorded announcement of bank and bank holding company applications scheduled for the meeting.

Dated: February 11, 1994.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 94–3604 Filed 2–14–94; 11:24 am]

BILLING CODE 6210–01–P

NATIONAL CREDIT UNION ADMINISTRATION

Notice of Change of Time and Date

The previously announced closed meeting (**Federal Register** Vol. 59, page 5816, Tuesday, February 8, 1994) of the National Credit Union Administration scheduled for 10:00 a.m., Tuesday, February 15, 1994, has been rescheduled for 3:00 p.m., Wednesday, February 16, 1994.

The previously announced items are:

1. Approval of Minutes of Previous Closed Meeting.
2. Administrative Action under Sections 202 and 206 of the Federal Credit Union Act. Closed pursuant to exemption (8).
3. Appeal from Credit Union of Determination under Part 701, NCUA's Rules and Regulations. Closed pursuant to exemption (8).
4. Personnel Actions. Closed pursuant to exemptions (2) and (6).

The closed meeting will be held in the Board Room, 7th Floor, Room 7047, 1775 Duke Street, Alexandria, Virginia.

FOR MORE INFORMATION CONTACT: Becky Baker, Secretary of the Board, Telephone (703) 518–6304.

Becky Baker,

Secretary of the Board.

[FR Doc. 94–3691 Filed 2–14–94; 3:32 pm]

BILLING CODE 7535–01–M

SECURITIES AND EXCHANGE COMMISSION

Agency Meeting

Notice is hereby given, pursuant to the provisions of the Government in the Sunshine Act, Pub. L. 94–409, that the Securities and Exchange Commission will hold the following meeting during the week of February 14, 1994.

A closed meeting will be held on Thursday, February 17, 1994, at 10:00 a.m.

Commissioners, Counsel to the Commissioners, the Secretary to the Commission, and recording securities will attend the closed meeting. Certain staff members who have an interest in the matters may also be present.

The General Counsel of the Commission, or his designee, has certified that, in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552b(c)(4), (8), (9)(A) and (10) and 17 CFR 200.402(a)(4), (8), (9)(i) and (10), permit consideration of the scheduled matters at a closed meeting.

Commissioner Roberts, as duty officer, voted to consider the items listed for the closed meeting in a closed session.

The subject matter of the closed meeting scheduled for Thursday, February 17, 1994, at 10:00 a.m., will be.

Settlement of administrative proceedings of en enforcement nature.
Institution of injunctive actions.
Isntitution of administrative proceedings of an enforcement nature.
Settlement of injunctive actions.
Opinion.

At times, changes in Commission priorities require alternations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: Bruce Rosenblum (202) 272–2300.

Dated: February 14, 1994.

Jonathan G. Katz,

Secretary.

[FR Doc. 94–3636 Filed 2–14–94; 3:59 pm]

BILLING CODE 8010–01–M

Corrections

Federal Register
Vol. 59, No. 32
Wednesday, February 16, 1994

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

48 CFR Part 14

[FAR Case 91-104]

Federal Acquisition Regulation; Electronic Contracting

Correction

In proposed rule document 93–31594 beginning on page 69588 in the issue of Thursday, December 30, 1993, make the following correction:

14.401 [Corrected]

On page 69590, in the first column, in section 14.401(a), in the third line, insert "not" before "be opened".

BILLING CODE 1505-01-D

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 80

[PR Docket No. 92-164; FCC–93–219]

Class C Emergency Position Indicating Radio Beacons

Correction

In rule document 93–14244 beginning on page 33343 in the issue of Thursday, June 17, 1993, make the following correction:

§ 80.205 [Corrected]

On page 33344, in the second column, in § 80.205(a), in the table, in footnote 13, in the second line, "February 1, 1989" should read "February 1, 1999".

BILLING CODE 1505-01-D

federal register

Wednesday
February 16, 1994

Part II

Environmental Protection Agency

40 CFR Part 80

Regulation of Fuels and Fuel Additives; Standards for Reformulated and Conventional Gasoline; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[AMS–FRL–4817–8]

Regulation of Fuels and Fuel Additives: Standards for Reformulated and Conventional Gasoline

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: Through the amended Clean Air Act of 1990, Congress mandated that EPA promulgate new regulations requiring that gasoline sold in certain areas be reformulated to reduce vehicle emissions of toxic and ozone-forming compounds. This document finalizes the rules for the certification and enforcement of reformulated gasoline and provisions for unreformulated or conventional gasoline.

DATES: The regulations for the reformulated gasoline program are effective on March 18, 1994. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 18, 1994. The information collection requirements contained in 40 CFR part 80 have not been approved by the Office of Management and Budget (OMB) and are not effective until OMB has approved them. EPA will publish a document in the Federal Register following OMB approval of the information collection requirements.

Retail sale of reformulated gasoline will begin on January 1, 1995, as will the provisions for the "simple model" certification, the anti-dumping program for conventional gasoline, and the associated enforcement procedures. (For all ensuing sections of this document, the program's beginning date of January 1, 1995 refers only to the retail sale of reformulated gasoline.) Certification of reformulated gasoline by the "complex model" and compliance with the Phase II performance standards, will begin January 1, 1998 and January 1, 2000, respectively.

ADDRESSES: Materials relevant to this FRM are contained in Public Dockets A–92–01 and A–92–12, located at room M–1500, Waterside Mall (ground floor), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The docket may be inspected from 8 a.m. until 12 noon and from 1:30 p.m. until 3 p.m. Monday through Friday. A reasonable fee may be charged by EPA for copying docket materials.

FOR FURTHER INFORMATION CONTACT:

Paul Machiele (reformulated gasoline requirements), U.S. EPA (RDSD–12), Regulation Development and Support Division, 2565 Plymouth Road, Ann Arbor, MI 48105, Telephone: (313) 668–4264.

George Lawrence (reformulated gasoline and anti-dumping enforcement requirements), U.S. EPA (6406J), Field Operations and Support Division, 501 3rd Street, Washington, DC 20005, Telephone: (202) 233–9307.

SUPPLEMENTARY INFORMATION: Today's final rule is preceded by four previous notices: an initial notice proposing standards for reformulated and conventional gasoline (NPRM) published on July 9, 1991 (56 FR 31176), a supplemental notice (SNPRM) published on April 16, 1992 (57 FR 13416), an additional NPRM published on February 26, 1993 (58 FR 11722), and a notice of correction for Phase II standards published on April 1, 1993 (58 FR 17175). Insofar as the rules finalized today mirror the proposed standards, those previous documents may be referred to.

Today's preamble explains the basis and purpose of the final rule, focusing on issues that have been revised since the publication of the correction notice for the Phase II performance standards (58 FR 17175). Support documents, including the Regulatory Impact Analysis (RIA), are available in Public Docket No. A–92–12.

To Request Copies of This Final Rule Contact: Delores Frank, U.S. EPA (RDSD–12), Regulation Development and Support Division, 2565 Plymouth Road, Ann Arbor, MI 48105, Telephone: (313) 668–4295.

Copies of the preamble, the Final Regulatory Impact Analysis (RIA), the Responses to Comments on Enforcement Provisions (RCEP), the complex model, the simple model and the regulations for the reformulated gasoline rulemaking are available on the OAQPS Technology Transfer Network Bulletin Board System (TTNBBS). The TTNBBS can be accessed with a dial-in phone line and a high-speed modem (PH# 919–541–5742). The parity of your modem should be set to none, the data bits to 8, and the stop bits to 1. Either a 1200, 2400, or 9600 baud modem should be used. When first signing on, the user will be required to answer some basic informational questions for registration purposes. After completing the registration process, proceed through the following series of menus:

(M) OMS

(K) Rulemaking and Reporting

(3) Fuels

(9) Reformulated gasoline

A list of ZIP files will be shown, all of which are related to the reformulated gasoline rulemaking process. The six documents mentioned above will be in the form of a ZIP file and can be identified by the following titles: "PREAMBLE.ZIP" (preamble); "RIAFINAL.ZIP" (RIA); "ENFORCE.ZIP" (RCEP); "EPAFINAL.ZIP" (complex model); "MODFINAL.ZIP" (simple model); "REGFINAL.ZIP" (regulations). To download these files, type the instructions below and transfer according to the appropriate software on your computer:

<D>ownload, <P>rotocol, <E>xamine, <N>ew, <L>ist, or <Help Selection or <CR> to exit: D *filename.zip*

You will be given a list of transfer protocols from which you must choose one that matches with the terminal software on your own computer. Then go into your own software and tell it to receive the file using the same protocol. Programs and instructions for de-archiving compressed files can be found via <S>ystems Utilities from the top menu, under <A>rchivers/de-archivers.

I. Background

The purpose of the reformulated gasoline regulations is to improve air quality by requiring that gasoline be reformulated to reduce motor vehicle emissions of toxic and tropospheric ozone-forming compounds, as prescribed by section 211(k)(1) of the Clean Air Act (CAA or the Act), as amended. This section of the Act mandates that reformulated gasoline be sold in the nine largest metropolitan areas with the most severe summertime ozone levels and other ozone nonattainment areas that opt into the program. It also prohibits conventional gasoline sold in the rest of the country from becoming any more polluting than it was in 1990. This requirement ensures that refiners do not "dump" fuel components that are restricted in reformulated gasoline and that cause environmentally harmful emissions into conventional gasoline.

Section 211(k)(l) directs EPA to issue regulations that, beginning in 1995, "require the greatest reduction in emissions of ozone-forming and toxic air pollutants ("toxics") achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions, any non air-quality and other air-quality related health and environmental impacts and energy requirements." The Act mandates certain requirements for the

reformulated gasoline program. Section 211(k)(3) specifies that the minimum requirement for reductions of volatile organic compounds (VOC) and toxics for 1995 through 1999, or Phase I of the reformulated gasoline program, must require the more stringent of either a formula fuel or an emission reductions performance standard, measured on a mass basis, equal to 15 percent of baseline emissions. Baseline emissions are the emissions of 1990 model year vehicles operated on a specified baseline gasoline. CAA compositional specifications for reformulated gasoline include a 2.0 weight percent oxygen minimum and a 1.0 volume percent benzene maximum.

For the year 2000 and beyond, the Act specifies that the VOC and toxics performance standards must be no less than that of the formula fuel or a 25 percent reduction from baseline emissions, whichever is more stringent. EPA can adjust this standard upward or downward taking into account such factors as feasibility and cost, but in no case can it be less than 20 percent. These are known as the Phase II reformulated gasoline performance standards. Taken together, sections 211(k)(1) and 211(k)(3) call for the Agency to set standards that achieve the most stringent level of control, taking into account the specified factors, but no less stringent than those described by section 211(k)(3).

The reader may refer to the April 16, 1992 SNPRM (57 FR 13416) and the February 26, 1993 NPRM (58 FR 11722) described in more detail below), the February 1993 Draft Regulatory Impact Analysis (DRIA), the Final Regulatory Impact Analysis (RIA), and Public Dockets A–91–02 and A–92–12 for a thorough description of the goals and regulatory development of the reformulated and anti-dumping programs and discussions of a number of associated technical issues.

A. Regulatory Negotiation (Reg Neg)

Shortly after passage of the Clean Air Act Amendments of 1990, EPA entered into a regulatory negotiation with interested parties to develop specific proposals for implementing both the reformulated gasoline and related anti-dumping programs. These parties included representatives of the oil and automobile industries, vehicle owners, state air pollution control officials, oxygenate suppliers, gasoline retailers, environmental organizations, and citizens' groups. (See the 1991 NPRM for the members of the negotiating committee and a discussion of the process for selecting them.)

In August 1991 the committee reached consensus on a program outline and signed an "Agreement in Principle" describing that consensus. EPA agreed to propose a two-step approach to reformulated gasoline. The first step would take effect in 1995 and utilize a "simple model" to certify that a gasoline meets applicable emission reduction standards. The simple model allows certification based on a fuel's oxygen, benzene, heavy metal and aromatics content and Reid Vapor Pressure (RVP).

Under the second step, according to the regulatory negotiation agreement, EPA would propose a "complex model" to supplant the simple model for certifying compliance with these standards. Certification under the complex model would take effect 4 years after it is promulgated. EPA also agreed to propose the more stringent Phase II emission performance standards.

B. July 9, 1991 NPRM (56 FR 31176)

The first NPRM for the reformulated gasoline program was published prior to the conclusion on the regulatory negotiations. Normally, in a negotiated rulemaking, such a reg-neg committee meets to develop a proposed rule which will be acceptable to all parties. If consensus is reached on a proposed rule, it is published as an NPRM. The committee members and the entities they represent agree to support the proposal and not to seek judicial review of the final rule if it has the same substance and effect as the consensus proposal. In this case, EPA published an NPRM while the advisory committee was still conducting negotiations. The Agency believed that although consensus of the members on an acceptable rule was possible, an NPRM was required at that time in order to meet the statutory deadline.

The 1991 NPRM described the provisions of both a program to require the sale of gasoline which reduces emissions of toxics and ozone-forming volatile organic compounds (VOCs) in certain nonattainment areas and a program to prohibit the gasoline sold in the rest of the country from becoming more polluting. The 1991 notice described the outline of the reformulated gasoline program as required by statutory provisions and options that the regulatory negotiation committee members were considering. Topics included in the 1991 proposal consisted of the derivation of the emission standards, fuel certification by modeling, opt-in provisions, credits, anti-dumping requirements, and enforcement provisions for all aspects of the reformulated gasoline program.

C. April 16, 1992 SNPRM (57 FR 13416)

As noted above, the Agency's SNPRM (57 FR 13416) reflected the agreement reached in the regulatory negotiation that had been conducted to develop reformulated gasoline regulations under section 211(k). The Supplemental Notice of Proposed Rulemaking (SNPRM) described the standards and enforcement scheme for both reformulated and conventional gasoline. It also included specific proposals for the simple emission model to be used in gasoline certification and enforcement.

D. February 26, 1993 NPRM (58 FR 11722)

In their comments on the SNPRM, the ethanol industry expressed concern that the reformulated gasoline rulemaking, as proposed in the SNPRM, effectively excluded ethanol from the reformulated gasoline market. In an attempt to address their concern, the Agency proposed an ethanol incentive program, at the direction of former President Bush, intended to promote the use of ethanol (and other renewable oxygenates) in reformulated gasoline. The objective of the proposed renewable oxygenate program was to enhance the market share for renewable oxygenates while, theoretically, maintaining the overall environmental benefits of the reformulated gasoline simple model. This would be accomplished by offsetting any increase in volatility that may result from the inclusion of ethanol with volatility reductions that occur in the rest of the RFG pool. This volatility balancing, however would not take into account any increase in volatility in-use due to mixing of ethanol and non-ethanol gasoline blends (commingling). The renewable oxygenate program would not be required in class B areas (the South) unless a state requested inclusion in the program. Thus, the NPRM (58 FR 11722) for reformulated gasoline proposed revisions to the simple model, as well as to the associated anti-dumping, and enforcement provisions. Also included in the NPRM were the proposed complex model for certification of reformulated gasoline and the proposed Phase II performance standards. The complex model is now scheduled to take effect January 1, 1998. The complex model will provide a method of certification based on the fuel characteristics such as oxygen, benzene, aromatics, RVP, sulfur, olefins and the percent of fuel evaporated at 200 and 300 degrees Fahrenheit (E200 and E300, respectively). The NPRM also proposed Phase II standards for reformulated gasoline which are to take effect in the

year 2000, as prescribed by section 211(k)(3) of the Clean Air Act (CAA). The proposed VOC performance standard was 20–32 percent for class B and 26–35 percent for class C. EPA proposed to set the toxic standard at 20 or 25 percent reduction since additional toxics control was not found to be cost effective and, in most cases, these greater toxics reductions were expected to occur through fuel reformulation for VOC control. The NPRM also included proposed NO_x performance standards of 0–16 percent in classes B and C. The proposed NO_x standards greater than zero were not required by the CAAA, but were proposed under the authority of section 211(c)(1) in conjunction with the Phase II reformulated gasoline standards of the Act since additional NO_x control was deemed beneficial and cost effective in reducing ambient ozone levels.

E. Discussion of Major Comments and Issues

EPA received a number of comments on the first NPRM (56 FR 31176), the SNPRM (57 FR 13416), and the latest NPRM (58 FR 11722) for reformulated and conventional gasoline. Comments covered a wide range of topics including regulatory procedure, certification standards, modeling emissions by the simple and complex models, the role of ethanol and other oxygenates in reformulated gasoline, vehicle testing, the anti-dumping program, Phase II standards, cost-effectiveness, and a number of enforcement-related issues. EPA has conducted an analysis of the comments received and duly considered the significant issues. Summaries of these comments and EPA's responses to them are contained in the Final Regulatory Impact Analysis and the Summary and Analysis of Comments which has been placed in the docket for this rulemaking (Public Docket No. A–92–12). Since the publication of the NPRM, the Agency has continued to develop the complex model. The first revisions of the complex emissions model since 1993 NPRM publication for reformulated gasoline have been provided to the public at a June 2, 1993 public workshop. EPA developed several complex model options in July which was provided to the public. In October of 1993, a draft version of the final complex model was released for public inspection as well. All the iterations of the complex model since the publication of the 1993 NPRM have been available to the public via a public electronic bulletin board and in submittals to the EPA Air Docket, Docket No. A–92–12.

All the various components of this rulemaking are being finalized in today's notice. The additional time has allowed adequate public review of the complex model and its implications for the reformulated gasoline Phase II standards.

The remainder of this preamble is organized into the following sections:

II. Treatment of Ethanol
III. Simple Model for Reformulated Gasoline Compliance
IV. Complex Model
V. Augmenting the Models Through Testing
VI. Phase II (Post-1999) Reformulated Gasoline Performance Standards and NO_x Standards for Reformulated Gasoline
VII. Enforcement
VIII. Anti-Dumping Requirements for Conventional Gasoline
IX. Anti-Dumping Compliance and Enforcement Requirements for Conventional Gasoline
X. Provisions for Opt-In by Other Ozone Non-Attainment Areas
XI. Federal Preemption
XII. Environmental and Economic Impacts
XIII. Public Participation
XIV. Compliance With the Regulatory Flexibility Act
XV. Statutory Authority
XVI. Administrative Designation and Regulatory Analysis
XVII. Compliance With the Paperwork Reduction Act
XVIII. Notice Regarding Registration of Reformulated Gasolines

II. Treatment of Ethanol

A. Background

The April 16, 1992 proposal of the Simple Model and Phase I standards was designed to be fuel and oxygenate neutral. Ethanol, however, when added to gasoline in the amount needed to satisfy the oxygen content requirement of the Act raises the Reid vapor pressure (RVP) of the resulting blend by about 1 psi, making it more difficult for ethanol blends to meet the mass VOC performance standards than blends using other oxygenates. For ethanol to be blended with the RFG, a blendstock gasoline with an RVP low enough to offset the increase resulting from adding ethanol would have to be obtained.

Ethanol industry representatives commented that obtaining such blendstocks would be both difficult and expensive, because "sub-RVP" blendstocks would be more costly to refine and because blendstock production would be controlled by petroleum refiners. Methyl tertiary butyl ether (MTBE), an oxygenate which does not boost a fuel's RVP, which is derived from methanol gas and the petroleum product isobutylene and whose blends can readily be put through petroleum pipelines, was thought to be the oxygenate of choice for most refiners. Ethanol's representatives theorized that the oil industry would have a desire to use MTBE over ethanol and, thus, little incentive to make the sub-RVP blendstock necessary for ethanol blending. The ethanol industry contended that a reformulated gasoline program which they argued would effectively preclude ethanol was contrary to Congress' intent that ethanol have a role in the program. They argued that the oxygen content requirement of section 211(k)(2) was motivated in large part by a desire to expand markets for ethanol. They noted the strong support afforded the RFG legislative initiative by members of Congress from agricultural states. They also cited statements in the legislative history indicating some members' expectation that the RFG program would provide an increasing market for ethanol.

Ethanol representatives contended that the benefits of ethanol use justify its inclusion in the RFG program. Specifically, they explained that ethanol is currently made in the United States from domestically-grown grains, primarily corn, and thus represents an important domestic and renewable source of energy. They further explained that to the extent ethanol is used in place of imported petroleum products, it promotes the nation's energy independence and improves its balance of trade, and that ethanol use also strengthens the market for corn, consequently reducing the need for price supports. Moreover, as a biomass-based product, ethanol is potentially a renewable fuel to the extent the energy derived exceeds any fossil fuel energy consumed in producing the ethanol.

In view of ethanol's importance to the nation's energy security and agricultural economy, ethanol representatives urged that the proposal be revised to allow ethanol to effectively participate in the RFG market. They suggested several possible revisions. For example, they argued that the 1 psi waiver granted to certain ethanol blends by section 211(h) of the CAA be applied to ethanol-blended RFG under section 211(k). They reasoned that since Congress recognized in the provision requiring nationwide reductions in fuel RVP that ethanol required such a waiver, ethanol should receive a similar waiver if the VOC performance standard for RFG sold in the smoggiest cities were defined in terms of a required reduction in RVP.

If the section 211(h) waiver were not available to RFG ethanol blends, the ethanol industry suggested that the VOC reduction requirement take into account that specific VOCs from various reformulated gasolines differ in their

ozone formation potential. While ethanol raises a fuel's volatility and thus its VOC emissions, they argued that the resulting VOCs are less ozone-forming than those that would otherwise occur. They urged that the 15 percent reduction requirement should thus be interpreted to require a 15 percent reduction in ozone-forming potential, not simply mass of ozone-forming VOCs. Ethanol supporters suggested additional ways of encouraging or even requiring ethanol use in RFG. The Governors Ethanol Coalition, for instance, suggested that EPA require the RFG market to satisfy its oxygenate requirements through a minimum percentage of domestically produced renewable fuel.

Based on ethanol's importance to the nation's energy and agricultural policy, President Bush on October 1, 1992 announced a plan to allow ethanol to effectively compete in the RFG program, with the expectation that, with barriers removed, ethanol use would grow. In lieu of an RVP waiver; or inclusion of ozone reactivity this plan was based upon provisions of section 211(k)(1) allowing the Administrator to take into consideration cost, energy requirements, and other specified factors in setting RFG performance standards. The most significant part of this plan called for EPA to "establish rules for reformulated gasoline in all northern cities that will have the effect of granting a one-pound waiver for the first 30 percent market share of ethanol blends, while achieving environmental benefits comparable to those provided for in EPA's proposed rule and regulatory negotiation." The environmental benefits of the proposed RFG program would be maintained by offsetting any increase in volatility of RFG containing ethanol with reductions in the volatility of the rest of the reformulated gasoline pool. In response to the announcement by former President Bush, EPA proposed on February 26, 1993 provisions to provide an RVP (and VOC) incentive for the use in reformulated gasoline of renewable oxygenates such as ethanol.

B. Concerns With the Proposal

At the time of the February 26, 1993 proposal, EPA had a number of concerns with respect to its legality, energy benefits, and environmental neutrality. Nevertheless, we proposed the provisions for public comment in the hope that these concerns could be overcome based on new data and information developed in-house or received through public comment. Since the time of the proposal these concerns have been enhanced. Additional data and information has been developed which indicates that energy benefits would be unlikely to occur as a result of the proposal. While the production of much of the ethanol in the country produces on the margin more energy and uses less petroleum than went into its production, a recent study by the Department of Energy (refer to DOE's comments on the proposal) indicates that the margin disappears when ethanol is mixed with gasoline. The energy loss and additional petroleum consumption necessary to reduce the volatility of the blend to offset the volatility increase caused by the ethanol causes the energy balance and petroleum balance to go negative. Since the potential energy benefits were the basis in the proposal for providing the incentives for renewable oxygenates, the justification for the proposal no longer exists.

Additional data and information has also been developed which indicates that VOC emissions would increase significantly under the proposal. As discussed in section I of the RIA, the commingling effect of mixing ethanol blends with non-ethanol blends in consumer's fuel tanks, the effect of ethanol on the distillation curve of the blend, and unrestricted early use of the complex model combined result in roughly a 6–7.5% increase in gasoline vehicle VOC emissions even though there is no increase in the average RVP of in-use gasoline. As a result, the proposal would have sacrificed 40 to 50 percent of the VOC control that is required under section 211(k) for reformulated gasoline in exchange for incentives for what is likely to have been only a marginal increase in the market share of ethanol in reformulated gasoline and no energy benefits or cost savings.

As discussed in section I of the RIA, ethanol is not excluded from competing in the reformulated gasoline market under the provisions of the April 16, 1992 SNPRM. As a result of the economic advantage of ethanol over other oxygenates, ethanol should maintain a significant market share under the reformulated gasoline program even without the renewable oxygenate incentives proposed in the February 16, 1993 proposal. As a result, the actual ethanol market share increase as a result of the renewable oxygenate provisions would be expected to be far less than the maximum of 30% for which incentives were provided. Given the relatively small increase in ethanol demand as a result of the renewable oxygenate provisions in exchange for such a large loss in the environmental control of the reformulated gasoline program, there does not appear to be any justification for promulgating these provisions.

Furthermore, comments were received from virtually all parties, including ethanol industry representatives, that the proposal was unworkable and would significantly increase the cost of the reformulated gasoline program. While EPA maintains that the program would have provided an economic incentive for the use of renewable oxygenates in reformulated gasoline up to a 30% market share, EPA acknowledges that the proposal would have intruded into the efficient operation of the marketplace, impacting the cost of the reformulated gasoline program. As a result, after taking into account the cost, non-air quality and environmental impacts, and energy impacts, EPA has found itself with no choice but to back away from the renewable oxygenate provisions of the February 26, 1993 proposal.

C. Provisions for the Final Rule

In lieu of the renewable oxygenate proposal, EPA investigated a number of options aimed at making the program more workable by reducing the fuel tracking, recordkeeping, and enforcement burden associated with the proposal. While such options tended to make the program more workable from the standpoint of the refining and fuel distribution processes, they also tended to either reduce the assurance that the environmental benefits of the program would be achieved in all areas covered by the RFG program, or to place additional restrictions on the flexibility contained in the proposal for blending ethanol into gasoline. Given this and the other concerns with the proposal (cost, lack of energy benefits, significant environmental loss, etc.), EPA did not believe these options to be appropriate or justifiable either under the provisions of section 211(k) of the Act. The reader is referred to the Final Regulatory Impact Analysis for a detailed discussion of the renewable oxygenate program.

A number of commenters suggested alternative provisions (1.0 psi RVP waiver for ethanol blends, inclusion of ozone reactivity in the standard setting process, mandates for refiners to provide clear gasoline blendstock for downstream blending with ethanol, etc.) to the proposed renewable oxygenate program to allow ethanol to play a larger role in the reformulated gasoline program. It was argued that without such provisions ethanol would be excluded from the market entirely in direct conflict with the intent of Congress in the CAA.

EPA, however, does not agree that ethanol is excluded from competing in the reformulated gasoline marketplace under the provisions of the April 16, 1992 proposal. In fact, as under the recently implemented wintertime oxygenated fuels program, ethanol is expected to significantly increase its market share under the reformulated gasoline program, especially in Midwestern areas where ethanol enjoys State tax incentives and relatively low distribution costs. In addition, not only is ethanol expected to compete as an alcohol, but it also may compete with methanol as an ether feedstock in the future. As a result, EPA believes that the treatment of ethanol blends under the April 16, 1992 proposal is entirely consistent with the intent of Congress as expressed in section 211(k) of the CAA.

The alternative provisions (1.0 psi RVP waiver for ethanol blends, inclusion of ozone reactivity in the standard setting process, mandates for refiners to provide clear gasoline blendstock for downstream blending with ethanol, etc.) suggested by various commenters to further enhance the competitiveness of ethanol in the reformulated gasoline program are not appropriate. These provisions are both outside of EPA's legal authority under the CAA, and indefensible from an environmental and scientific standpoint. The 1.0 psi waiver for example, could easily forfeit all VOC emission reductions otherwise achieved by the reformulated gasoline program. A move away from the mass based standards of the Act to reactivity based standards is not only unsupportable on the basis of the available scientific information, but even if EPA were able to do so, it would be unlikely to provide any significant advantage for ethanol blends. As discussed in section I of the RIA, the recent urban airshed modeling studies claiming that ethanol blends with a 1.0 psi waiver do not increase ozone relative to an MTBE blended reformulated gasoline are frought with invalid assumptions and inconsistencies and are not applicable to the reformulated gasoline situation. As a result, they provide no credible scientific support for special provisions for ethanol in the context of the reformulated gasoline program.

Given the lack of justification for the renewable oxygenate provisions of the February 26, 1993 proposal, the options considered for simplifying that proposal, and other alternative provisions recommended by commenters, EPA is, thus, basing the oxygenate-related provisions of the final rule on the provisions as proposed in the April 16, 1992 proposal. Despite this decision, EPA still believes ethanol will be able to compete favorably in the reformulated gasoline market either as a direct additive or as an ether feedstock as discussed above. As such, EPA believes that the nationwide production of ethanol will increase as a result of this rulemaking with corresponding benefits to our Nation's agricultural sector. However, the increase may not be as large as it otherwise would have been had an incentive program been promulgated for ethanol. The reader is referred to section I. of the RIA for additional description of the comments and information which led up to this decision.

III. Simple Model for Reformulated Gasoline Compliance

In accordance with section 211(k) of the Clean Air Act, EPA requires that in order for a gasoline to be certified as reformulated, it must contain at least 2.0 weight percent oxygen, no more than 1.0 volume percent benzene, and no heavy metals (unless a waiver is granted); result in no increase in NO_X emissions; and achieve required toxics and VOC emission reductions. The VOC, NO_X, and toxics emission requirements effective between January 1, 1995 and December 31, 1997 and EPA's derivation of them are set forth below.

Two methods by which refiners can certify their fuel as meeting the VOC, NO_X, and toxics requirements of reformulated gasoline are contained in this rulemaking. The first, by use of a "Simple Model," is described in this section. A second method, the use of the "Complex Model" is described in Section IV. Provisions for augmenting the Complex Model through vehicle testing are described in Section V. For reasons set forth in the April 16, 1992 SNPRM (57 FR 13417–13418) and discussed Section V, vehicle testing is not an option as a separate, stand-alone method of certification. First, models can better reflect in-use emission effects since they can be based on the results of multiple test programs. Second, individual test programs may be biased, either intentionally or unintentionally. Third, fuel compositions tend to vary due in part to factors beyond the control of fuel suppliers, potentially requiring testing of each batch if a model is not used. Finally, models make more efficient use of scarce and expensive emissions effects data than is otherwise possible. For these reasons, EPA believes that the modeling options promulgated by EPA are necessary for the reformulated gasoline program to achieve its environmental objectives and to minimize the costs of the program. Comments were received suggesting that EPA allow certification based on testing as an optional means of certification. However, for the same reasons discussed above, EPA does not believe such an option would be appropriate. EPA would have much less certainty that the results of the test program were valid.

At the time of the simple model proposal, while a number of fuel parameters were thought to impact emissions, data were sufficient for only a few of these parameters (Reid vapor pressure, fuel oxygen, benzene, and aromatics) to quantify their effect with reasonable accuracy for use in an emissions model. For those additional parameters which were thought to impact emissions in a directionally clear, but as of yet unquantifiable manner (sulfur, T90, and olefins), EPA proposed that they be capped at the refiner's 1990 average level to prevent emission effects from changes in their levels from undercutting the emission reductions achieved by the parameters contained in the simple model. The effect of aromatics on VOC and NO_X emissions was also unclear, but instead of being capped, it was believed that the level of aromatics would be controlled by the role aromatics plays in the formation of air toxics emissions.

Data is now available to accurately quantify not only the effects of RVP, oxygen, benzene, and aromatics on emissions, but also sulfur, T90 (or E300), olefins, and T50 (or E200). The effects of these fuel parameters are incorporated into the Complex Model described in Section IV.

The Complex Model is the most accurate and complete model currently available for use in the reformulated gasoline program. Absent any other considerations, EPA would require use of the Complex Model for purposes of certification. However, based on leadtime considerations, EPA is allowing use of either the Simple or Complex Model during the first three years of the reformulated gasoline program as proposed. These lead time considerations were described in the April 1992 proposal (57 FR 13417–8). EPA is providing four years leadtime before use of the Complex Model is mandatory to allow the regulated industry adequate time to plan and design necessary refinery modifications, obtain necessary permits and capital, complete construction, and complete start-up and equipment shakedown. Furthermore, EPA has every confidence that on average the refiners certifying their fuel using the Simple Model will achieve the emission reductions that

Congress intended for the reformulated gasoline program.

Various comments were received criticizing the use of the Simple Model for fuel certification, stating that it had limited flexibility, discouraged innovation, penalized refiners producing cleaner than average gasoline in 1990, and should be scrapped. Many of these comments would appear to be resolved by the option available for early use of the Complex Model. Therefore, in keeping with the need to provide adequate lead time and the fact that compliance with the Simple Model will produce the mandatory VOC and toxic emission reductions, refiners will be permitted to use the simple model for certification until December 31, 1997. Until this date, fuel suppliers will have the option of using the complex model instead of the simple model to take advantage of the effects of parameters contained in the complex model but not contained in the simple model (as described in the following paragraphs). The reader is referred to the April 16, 1992 SNPRM for more discussion of these lead time provisions.

A. Simple VOC Emissions Model

The simple model for VOC emissions is comprised of fuel specifications for RVP and oxygen. Fuels sold at retail outlets must have an RVP during the high ozone season (June 1 through September 15) of no more than 7.2 psi in VOC control region 1 (the southern areas typically covered by ASTM class B during the summer) and 8.1 psi in VOC control region 2 (the northern areas typically covered by ASTM class C during the summer).[1] The differences in climate between these two types of areas requires a corresponding difference in gasoline volatility to achieve the same emissions effect. The period of June 1 through September 15 was chosen for the high ozone season because most of the ozone violations occur during this period. (See 56 FR 24242 for a discussion of the determination of this period.)

Section 211(k)(3) of the Act requires that at a minimum reformulated gasoline comply with the more stringent of either a 15% reduction in VOC emissions or a formula fuel described in that section, whichever is greater. EPA has determined that the formula fuel would achieve less than a 15% reduction in VOC. As such, the minimum VOC emission reduction required by the Act is 15%. As discussed in section IV, EPA believes that the VOC emission reduction in VOC control region 2 from a fuel with an RVP of 8.1 psi and 2.0 weight percent oxygen will be sufficient to achieve the minimum 15% VOC emission reduction relative to the Clean Air Act baseline gasoline (which has an RVP of 8.7 psi). In VOC control region 1, an 8.1 psi RVP fuel with 2.0 percent oxygen (which would meet the minimum 15% reduction requirement relative to the CAA baseline fuel) would actually have greater emissions than a fuel meeting EPA's Phase II RVP control standards for VOC control region 1 (maximum RVP of 7.8 psi). EPA believes that when Congress designated cities for inclusion in the reformulated gasoline program that it intended the program to provide emissions reductions in addition to those provided by the Phase II RVP requirements. If EPA merely required reformulated gasoline in VOC control region 1 to meet the RVP requirement for VOC control region 2, then no reduction in VOC emissions would accrue under the first phase of the reformulated gasoline program beyond those mandated by Phase II RVP standards. EPA projects that relative to Phase II RVP control levels, a fuel with 7.2 psi RVP and 2.0 weight percent oxygen would provide VOC emission reductions in VOC control region 1 similar to those obtained in VOC control region 2.

While requiring reformulated gasoline sold in VOC control region 1 to have an RVP of no more than 7.2 psi goes beyond the minimum requirement stated in section 211(k)(3), section 211(k)(1) authorizes EPA to require emission reductions in VOC control region 1 of this magnitude because they are achievable considering costs, other air quality and non-air quality impacts, and the energy implications of such a requirement.

Similarly, EPA believes that additional VOC reductions are obtainable if refiners are allowed to meet the RVP and oxygen standards through averaging. If refiners wish to take advantage of averaging, EPA thus will require their average RVP for both VOC control regions 1 and 2 to be reduced by 0.1 psi to 7.1 and 8.0 psi, respectively, and the average oxygen concentration to be increased to 2.1 weight percent oxygen. For additional discussion of the rationale for the more stringent standard in VOC control region 1 and the increase in stringency of the averaging standards, the reader is referred to the April 16, 1992 SNPRM.

B. Simple NO_x Emissions Model

The Clean Air Act requires that there be no NO_X emissions increase from reformulated fuels. Based on data available during the regulatory negotiations and at the time of the April 16, 1992 proposal, it appeared that fuel oxygen content and the type of oxygenate used may have an impact on NO_X emissions while no other simple model parameter appeared to have such an impact. Due to the statutory requirement for oxygenate use, and the lack of any other parameters in the simple model by which refiners could offset any NO_X increase, EPA needed to place restrictions on the amount of oxygen that could be added to the fuel in order to prevent NO_X emission increases. EPA proposed on the basis of the data then available that MTBE blends containing up to 2.7 weight percent (wt%) oxygen and other blends containing up to 2.1 wt% oxygen would be presumed to result in no NO_X increase. Greater oxygenate concentrations could not be permitted due to the risk of NO_X emission increases.

When additional data became available, however, there did not appear to be any significant difference between the NO_X emission effects of oxygen from different oxygenates. Furthermore, it appeared that reducing the concentration of a number of additional fuel parameters (aromatics, olefins, sulfur, etc) could reduce NO_X emissions. Since these fuel parameters all tend to be reduced to varying degrees when oxygenates are added to gasoline, EPA proposed in its February 26, 1993 proposal that all oxygenates be assumed to result in no NO_X emission increase under the simple model up to 2.7 wt% oxygen.

Under the final Complex Model discussed in Section IV, oxygen has been found to result in no NO_X increase, in fact, it results in a very slight decrease. However, the other changes that occur to the fuel when oxygenates are added both increase and decrease NO_X emissions (increases in E200 increase NO_X emissions while reductions in sulfur, olefins, aromatics, and increases in E300 reduce NO_X emissions). Typically the effect of these other fuel changes will be to further reduce NO_X emissions. However, there is no control placed on E200 levels under the simple model, and the levels of sulfur, olefins, an E300 are only constrained to the refiner's 1990 baseline levels (aromatics is controlled indirectly to some degree by the toxics requirement). As a result, there is no assurance under the simple model that

[1] Lower RVP limits apply for fuels that comply under averaging. RVP controls also apply from May 1 to May 31 for facilities upstream of retail outlets. These issues are discussed elsewhere in this proposal.

oxygenate addition will not increase NO_X emissions. The more oxygenate added, the greater the increase in E200, and the greater the possibility for a NO_X increase. For this reason EPA believes it is still appropriate to cap the maximum oxygen content under the Simple Model at 2.7 wt%. Any higher oxygen concentrations will require use of the complex model.

However, for a number of reasons, EPA believes it is appropriate for any oxygenate up to 3.5 weight percent oxygen to be presumed to result in no NO_X emission increase under the simple model during those months without ozone violations (e.g., winter months) unless a state requests that oxygenate levels be limited to the 2.7 wt% oxygen level applicable during those months with ozone violations. First, although there are a number of concerns associated with NO_X emissions, the main concern of focus in this rulemaking is ozone which is for the most part a summertime problem. Second, while there is no assurance that individual batches of gasoline containing more than 2.7 wt% oxygen will not increase NO_X emissions, the increase, if any, would be small (i.e., likely less than 1 percent). Third, on average across all fuel produced by all refiners in an area, a NO_X reduction may still occur. Fourth, there are benefits to the use of oxygenates during the winter months (lower CO and air toxics emissions) that may be more important to individual states than the certainty that no one batch of fuel increases NO_X emissions relative to the 1990 baseline.

A state may make a request for the 2.7 wt% oxygen limit to apply during the non-ozone season when it believes that the use of higher oxygenate levels would interfere with attainment or maintenance of another ambient air quality standard (other than ozone) or another air quality problem. This proposal parallels the Regulatory Negotiation Agreement of August 16, 1991 and EPA's letter to the Renewable Fuels Association dated August 14, 1991.

C. Simple Toxics Emissions Model

Under section 211(k)(3), EPA must at a minimum require the more stringent of either a specified formula fuel or a 15 percent reduction in toxics emissions from that of baseline gasoline. All five of the toxic air pollutants that section 211(k)(10) of the Act specifies for control through reformulated gasoline (benzene, 1,3-butadiene, polycyclic organic matter (POM), formaldehyde, and acetaldehyde) also fall under the category of VOCs. Exhaust emissions include unburned benzene and benzene formed from other aromatics during the combustion process. Benzene, an aromatic compound, is a natural component of gasoline and, as such, is present in evaporative, running loss and refueling emissions (nonexhaust emissions). However, nonexhaust VOC and benzene emissions data are only available in sufficient quantities under high ozone test conditions. Therefore, nonexhaust benzene emissions are not considered outside of the high ozone season. The four other toxic air pollutants subject to control by reformulated gasoline are not present in gasoline and hence are solely products of combustion.

The equations that represent the simple model for air toxics emissions are shown in section 80.42 of the regulations. The derivation and referenced work is given in the regulatory impact analysis.

Only minor changes were made to the proposed simple toxics model. One change excluded ethane from the exhaust VOC baseline emissions as discussed below in Section III.D.3. The weight fractions of the various toxics as a function of VOC have also been adjusted accordingly, resulting in no net change in predicted toxics performance for a particular fuel. At the request of commenters, EPA has also included the oxygenates tertiary amyl methal ether (TAME) and ethyl tertiary amyl ether (ETAE) as well as provisions for other oxygenates and mixed oxygenates. Due to their similar chemical makeup, methyl ethers (such as TAME) and ethyl ethers (such as ETAE) are to be modeled using the same equations as for MTBE and as for ETBE, respectively. Higher alcohols will be modeled using the same equations as for ethanol. Higher ethers will be modeled as ETBE for all air toxics, since ETBE was the highest ether for which toxics data were available.

D. Baseline Determination

Where the performance standard is more stringent than the formula, the Act requires EPA to promulgate standards for the performance of reformulated gasoline that are relative to emission levels from baseline vehicles using baseline fuel. In order to determine whether fuels meet the performance requirements of reformulated gasoline under the simple model, EPA must therefore establish the baseline to which the emission performance of reformulated fuels are to be compared. The following discussion describes how EPA derived the emission baselines.

1. Control Periods

Before the emission baselines can be determined, the time frame over which fuel performance will be evaluated must be identified. Section 211(k) of the Act requires control of VOC emissions during the "high ozone season." For the purposes of this rulemaking, the high ozone season is defined to be June 1 through September 15. This period covers the vast majority of days during which the national ambient air quality standard for ozone is exceeded nationwide and is consistent with the period covered by EPA's gasoline volatility control requirements. All gasoline at service stations must thus comply with the reformulated gasoline requirements during this period. Also in keeping with the gasoline volatility control rulemaking the "VOC control Period" for compliance with the reformulated gasoline provisions upstream from the service station (necessary to ensure complying fuel is available at the service stations during the high ozone season) is May 1 through September 15.

2. Baseline Gasoline

The fuels to be used in determining baseline emissions are unchanged from the February 26, 1993 proposal and are shown below.

TABLE III–1.—BASELINE FUEL COMPOSITIONS

	Summer	Winter
Sulfur, ppm	339	338
Benzene, volume percent	1.53	1.64
RVP, psi	8.7	11.5
Octane, R+M/2	87.3	88.2
T10, degrees F	128	112
T50, degrees F	218	200
T90, degrees F	330	333
Aromatics, volume percent	32.0	26.4
Olefins, volume percent	9.2	11.9
Saturates, volume percent	58.8	61.7

3. Definition of Ozone-Forming VOC

The Act requires reductions in emissions of ozone-forming VOCs. This interpretation is consistent with the focus of Section 211(k) on the areas with the most extreme ozone pollution problem. EPA proposed in April 16, 1992 that methane would be excluded from the definition of VOC on the basis of its low reactivity in keeping with past EPA actions, but included all other VOCs including ethane. EPA further proposed, however, that should the Agency modify the definition of VOC, we might do so for the reformulated gasoline rulemaking as well. As discussed in the February 26, 1993 proposal, EPA has also modified the

definition of VOC to exclude ethane in a separate Agency rulemaking (57 FR 3941). As a result, the performance of fuels meeting the VOC emission requirements under the simple model are expressed on a non-methane, non-ethane basis. This change resulted in slight changes to the simple model equations previously proposed, but the overall results of the simple model are essentially unaffected.

4. Simple Model Baseline

The following table shows the baseline emissions under the simple model which result from the assumptions discussed above. Since the MOBILE model does not estimate toxics emissions, however, separate data and information was necessary to determine their baseline emissions. The toxics baseline was developed in essentially the same manner as that proposed in the April 16, 1992 proposal. An explanation of this derivation can be found in Section II of the RIA.

TABLE III–2.—SIMPLE MODEL BASELINE EMISSIONS

	Summer		Winter
	Region 1	Region 2	
Exhaust VOCs (g/mi)	0.444	0.444	0.656
Non-Exhaust VOC (g/mi)	.856	.766	0
Total VOCs (g/mi)	1.30	1.21	0.656
Exhaust Benzene (mg/mi)	30.1	30.1	40.9
Evaporative Benzene	4.3	3.8	0.0
Running Loss Benzene	4.9	4.5	0.0
Refueling Benzene	0.4	0.4	0.0
1,3–Butadiene	2.5	2.5	3.6
Formaldehyde	5.6	5.6	5.6
Acetaldehyde	4.0	4.0	4.0
POMs	1.4	1.4	1.4
Total TAPs (mg/mi)	53.2	52.1	55.5

E. Phase I Performance Standards Under the Simple Model

Section 211(k)(3) directs EPA to require, at minimum, that Phase I reformulated gasoline comply with the more stringent of two alternative VOC and toxics emission requirements—either a performance standard of a 15 percent reduction from baseline levels on a mass basis, or compositional requirements specified as a formula in Section 211(k)(3)(A). The formula effectively defines a set of maximum or minimum fuel parameter specifications. In evaluating which requirement is more stringent, EPA is to consider VOC and toxics separately.

The stringency of the formula is best evaluated by determining the emissions performance of the fuels that would be certifiable if EPA were to impose the requirements of Section 211(k)(3)(A). A gasoline would meet these requirements if it (1) had no more than 1.0 volume percent benzene, (2) had no more than 25 volume percent aromatics, (3) had no less than 2.0 weight percent oxygen, and (4) met the requirements for detergent additives and lead content. The formula does not specify or limit any additional gasoline properties, and therefore a wide variety of fuels with very different properties would qualify as complying with the formula. For example, the formula specifies the weight percent oxygen but does not specify the type of oxygenate. If EPA were to impose the requirements of Section 211(k)(3)(A), then any approved oxygenate could be used to meet the formula's oxygen requirement, as long as it was blended to achieve the required weight percent oxygen. The same would be true of sulfur levels, distillation characteristics, olefin levels, RVP levels, and so on. As long as the formula's requirements were met, the fuel would be certifiable if EPA were to base its certification requirements on Section 211(k)(3)(A).

To evaluate the emissions performance of the various fuels that would comply with the formula requirements, EPA used the Phase I complex model. Given the Phase I baseline emission levels, EPA considers the complex model to be the most appropriate means of evaluating emissions performance since it incorporates the Agency's most recent, complete, and accurate knowledge of the effects of fuel properties on VOC and toxics emissions. Since many of the fuel parameters that are not specified for the formula affect VOC and toxics emissions, the various possible formula fuels exhibit a wide variety of emission performance levels as these unspecified parameters vary. According to the Complex Model, requirements based on many possible formula fuels would be less stringent than requirements based on the 15 percent minimum reduction requirements of Section (211)(k)(3)(B). In addition, the lack of specificity of the formula fuel would make establishment of an equivalent emissions performance standard impossible, since one or more possible formula fuels would fail to meet any specific standard.

In past proposals, EPA has evaluated the formula fuel by assigning levels for unspecified parameters at their level in baseline gasoline, as defined in section 211(k)(9)(B) of the Act. However, such an interpretation would not eliminate the problems described above, since the oxygenate type would remain unspecified. Hence the requirements of a formula could be met by a range of fuels, each based on different oxygenates, even if unspecified parameters were to be set to baseline levels, and this range of fuels would exhibit a range of emission performance levels. While the Complex Model attributes identical effects to oxygen in different chemical forms for most pollutants, it incorporates emission effects that depend on the type of oxygenate used for nonexhaust benzene, acetaldehyde, and formaldehyde emissions. EPA therefore ran the complex model for several fuels, varying the type of oxygenate and holding other parameters not specified by the formula at statutory baseline levels.

The VOC emission reductions from baseline levels for all such formula fuels were less than 15 percent. EPA therefore based the VOC emission requirements for Phase I reformulated gasoline on the 15 percent reduction minimum performance standard, since this standard is more stringent than the requirements of the formula.

For toxics performance, EPA separately evaluated the emissions

performance of fuels that met the formula requirements and contained statutory baseline levels of unspecified fuel properties for VOC control regions 1 and 2, since nonexhaust benzene emissions would differ in these two regions. EPA also evaluated such fuels with different oxygenate types. The results are shown in Table II–3. These results include both summer and winter effects, weighted based on the share of vehicle miles traveled in each season.

TABLE II–3.—PHASE I TOXICS EMISSIONS PERFORMANCE OF FORMULA FUELS

Oxygenate type	Percent reduction from CAAB levels	
	VOC control region 1	VOC control region 2
ETBE	11.82	11.65
Ethanol	13.16	13.01
MTBE	16.33	16.15
TAME	16.81	16.67

The results indicate that whether a formula fuel (with unspecified fuel parameters at statutory baseline levels) meets the 15% minimum performance requirement of section 211(k)(3)(B) depends on the type of oxygenate used. If EPA were to impose the formula requirements of section 211(k)(3)(A), the results presented in Table II–3 indicate that not all gasolines which could be certified as reformulated would achieve at least a 15 percent reduction in toxics mass emissions, even if unspecified fuel properties were set at statutory baseline levels. If EPA were to require a 15 percent emissions reduction in accordance with section 211(k)(3)(B), however, all fuels would achieve this minimum level of reductions. EPA therefore believes that the formula requirements of section 211(k)(3)(A) are not as stringent as the performance standard set forth in Section 211(k)(3)(B).

The minimum performance standard for Phase II is even more stringent than the Phase I standards. EPA has therefore determined that the performance standard is more stringent than the formula for both VOCs and toxics, for both Phase I and Phase II. EPA must therefore set its Phase I requirements for both VOCs and toxics to be no less stringent than the 15 percent emission reduction performance standard required by section 211(k)(3)(B). EPA has considered whether it should require greater reductions in toxics mass emissions than that required by the 15 percent minimum performance standard. However, the Agency has concluded that more stringent toxics requirements are not cost-effective, as is discussed more fully in Section VI. Hence EPA has set the Phase I toxic emission performance standard at the minimum 15 percent reduction from baseline levels required by the Act. Compliance with this standard must be demonstrated using the appropriate emission models throughout Phase I.

Under the authority of section 211(k)(1), EPA believes that the greater flexibility and reduced cost afforded to gasoline refiners and importers by an averaging program allow EPA to require a greater reduction in toxics emissions than is required under section 211(k)(3). As discussed in Section VII, the Agency believes it appropriate, when the air toxics standard is met on average, that it be 1.5 percentage points more stringent than standards met on a per-gallon basis. EPA estimates that the approximate 1.5 percentage point margin will be sufficient to recoup any compliance margin refiners would have otherwise had to maintain to ensure achievement of the toxics requirements in the absence of an averaging program. In sum, the tighter averaged standard should have the potential to increase the environmental benefits of the reformulated gasoline program while not increasing the cost of obtaining those benefits. As a result, the air toxics performance standard when met on an annual average basis is set at a 16.5% reduction from baseline levels.

F. Applicability (1995–7)

The Simple Model described in this section is effective beginning January 1, 1995 with the beginning of the reformulated gasoline program as a means by which fuel producers can certify that their fuel meets the requirements for reformulated gasoline. The Complex Model described in Section IV will not be required to be used for fuel certification until January 1, 1998.

Until January 1, 1998, refiners who produce reformulated gasoline will have a choice of certifying their gasoline by using either the Simple Model or the Complex Model. EPA proposed three options for establishing the performance standards under early, optional use of the Complex Model. Under one option, if a refiner opts to utilize the Complex Model before January 1, 1998 the reformulated gasoline can have no worse VOC, NO_X, or toxic emissions performance than would be predicted by the Complex Model for a Simple-Model fuel (minimum 2.0 percent oxygen, maximum 1.0 percent benzene, and maximum RVP of 8.1 psi in Class C areas and 7.2 psi in Class B areas) having that refiner's average 1990 levels of sulfur, olefins, and T90 (E300). The second option was a variation of the first, in that refiners producing gasoline for use in only the southern reformulated gasoline areas (VOC control region 1) could measure their fuel performance against the CAA baseline gasoline as an alternative to their own 1990 refinery baseline. The third option, proposed by EPA in February 1993, would extend the second option to all reformulated gasoline areas.

The rationales for these options are discussed in detail in EPA's proposals. Many of the comments were also received prior to the proposals, and as such were addressed there. As a result, the reader is referred back to the proposals for additional discussion. After considering the comments, EPA has decided to promulgate the first option. First, under this option each refiner will have to achieve the same reductions, whether they use the simple model or the complex model. The option to use either model increases refiner flexibility, but will not change the emissions reductions required for a refiner prior to mandatory use of the complex model in 1998. EPA believes that the reductions required under the simple model are achievable considering all relevant factors and will continue to be so under the optional use of the complex model. In fact, the additional flexibility of using the complex model would in some cases make them even more reasonable.

Second, the other two options create an incentive for early use of the complex model by those refiners who would then have a less stringent performance standard than under the simple model. This would produce on average an increase in overall emissions for reformulated gasoline compared to average emissions if only the simple model was allowed. Refiners with individual baselines for sulfur, T90 and olefins that are lower than the CAA baseline would, under the second and third options, get credit for emission benefits for these parameters, and could use this to justify a less stringent RVP control than required under the simple model. There would be no parallel disincentive to early use of the complex model for refiners with higher baselines which would result in an increase in their required reductions. This imbalance in the expected early use of the complex model could easily lead to an average 1–2 percentage point reduction in the average emission performance of reformulated gasoline from 1995–7 as discussed in section I of the RIA. Based on this negative environmental impact, and the

reasonableness of the complex model performance standard under the first option, EPA has decided to promulgate the first option described above for early use of the complex model.

G. Enforcement of the Early Use Option

Additional controls over reformulated gasoline certified using the "early-use" complex model are necessary for the operation of the downstream enforcement mechanisms of VOC and NO_X emissions performance minimums, and covered area gasoline quality surveys. These restrictions are necessary because under the restricted early-use approach being promulgated, VOC, toxics, and NO_X percentage reductions are calculated from a baseline fuel using the refiner's 1990 baseline levels of sulfur, T–90, and olefins. As a result, the reformulated gasolines produced by different refiners (or in some cases, at different refineries) under this option will likely each meet different percentage reduction standards for VOC, toxics, and NO_X. Therefore, the performance of a fungible mixture of complex model gasolines produced by different refiners at different refineries could not be predicted, nor could be evaluated.[2]

In order for the per-gallon minimums for VOC and NO_X emissions performance to be monitored by downstream regulated parties and enforced by EPA, the baseline for a given gasoline sample must be known. Without knowledge of the baseline, it is not possible to determine whether the fuel complies with the per-gallon minimums, since it will be different for each refinery. Similarly, in order for the gasoline quality surveys to function under early use of the complex model, the baseline from which to determine the emission performance for VOC, toxics, and NO_X must be known. Without knowledge of the baseline, it is not possible to determine whether the complex model fuels in an area on average meet the per-gallon standards.

EPA received comments from two industry groups representing the refining industry on this issue. Both commenters stated that EPA should require that "early-use" complex model gasolines subject to different baselines be segregated through the gasoline distribution system. EPA is adopting this suggested approach as the best (and perhaps only) means of accommodating both the restricted early-use option and downstream enforcement of per-gallon minimums and gasoline quality surveys.

Under this approach, gasoline sampled at any point in the distribution system would have known values for VOC, toxics, and NO_X emissions performance that meet the per-gallon and minimum standards. Today's rule requires that these values must be included in the product transfer documents for "early-use" complex model gasoline, to inform downstream parties and EPA of the relevant per-gallon and minimum values.

Today's rule prohibits the commingling throughout the distribution system, including at retail outlets, of "early-use" complex model gasoline that is subject to different baselines. One commenter stated that the segregation of this gasoline should be through the terminal level only. EPA disagrees with this comment because segregation through the retail level also is necessary in order for gasoline quality surveys to function. Survey samples are taken at retail outlets, and the survey requires that the relevant per-gallon values for VOC, toxics, and NO_X emissions performance must be known for each sample.

EPA realizes that restrictions on commingling of "early-use" complex model gasolines constitutes a significant constraint on the use of this option, because most gasoline used in the United States is transported as a fungible commodity. As a result, EPA anticipates that before 1998 the complex model will be used only in limited situations. This might occur where a refiner has a gasoline transportation system that is dedicated from the refinery through the retail level, or where the cost advantages of using the complex model are sufficiently large to offset the difficulties of segregation. In spite of these constraints, EPA sees no alternative to requiring segregation controls over "early-use" complex model gasoline.

IV. Complex Model

The complex model described in this section has undergone significant changes since it was first proposed in the February 1993 NPRM. These changes have been made in response to three key factors: EPA's improved understanding of the relationship between fuel characteristics and emissions, EPA's use of more appropriate data analysis methods, and comments received in response to the February NPRM, a public workshop held on May 25, 1993, and EPA's July 14, 1993 docket submission that described a number of alternative complex models. The key elements in the complex model being promulgated today are discussed in this section. This discussion also addresses the major substantive comments received by EPA regarding the complex model. A more detailed description of the model and its derivation, including a detailed summary and analysis of comments, can be found in Section IV of the RIA.

Baseline Emissions

As discussed in Section III, EPA is using a July 11, 1991 version of MOBILE4.1 to estimate baseline emissions from light-duty vehicles for the simple model, assuming a basic inspection and maintenance program. This baseline was developed in the regulatory negotiation and was at the time the best estimate of the in-use emission performance of 1990 vehicles from which to ensure that the minimum performance standards required by section 211(k) of the Clean Air Act would be achieved.

Since that time the Agency has developed a new version of the MOBILE model, MOBILE5a, for use by the states in demonstrating compliance with the national ambient air quality standard for ozone. As proposed in the February 26, 1993 proposal, EPA will use MOBILE5a in conjunction with an enhanced I/M program to establish the emission baseline for Phase II of the reformulated gasoline program beginning in the year 2000. EPA, however, has decided to retain the MOBILE4.1 and basic I/M baseline assumption for the simple model during Phase I of the RFG program. Switching to a MOBILE5a baseline for Phase I would have required reformulated fuels to meet a slightly more stringent RVP standard to maintain the minimum VOC emissions performance required by the Act. The majority of the VOC emission reductions achieved by RFG are from nonexhaust emissions; under MOBILE5a, nonexhaust VOC emission reductions are less effective in reducing overall VOC emissions than are exhaust VOC reductions, while the opposite is true under MOBILE4.1. Thus, in order to provide refiners with sufficient leadtime to complete the investments needed to meet the requirements of the program, the baseline for the Simple Model is determined using MOBILE4.1.

When replacement of the Simple Model with the Complex Model is required in 1998, the issue again arises as to whether a more stringent standard should be required by shifting to use of MOBILE5a in determining the baseline. MOBILE5a clearly provides a more

[2] Beginning in 1998, certification of reformulated gasoline using the simple model will no longer be an option, and all reformulated gasoline will be certified using the complex model. Also beginning in 1998, all refiners and importers will calculate emissions performance reductions from Clean Air Act average gasoline; individual refiner baselines will not be relevant to reformulated gasoline. As a result, the difficulties with downstream enforcement and surveys will be resolved.

recent estimate of the mobile source VOC inventory than does MOBILE4.1. However, many of the changes made in MOBILE5a were intended to significantly increase the accuracy of the exhaust emission estimates while similar changes which would have increased the accuracy of the nonexhaust VOC emission estimate were not incorporated for various reasons, including the limited time available to revise the MOBILE model. As a result, the proportional contribution of exhaust and nonexhaust VOC emissions to the in-use VOC inventory may not be any more accurate in MOBILE5a than in MOBILE4.1 even though MOBILE5a provides a more accurate assessment of the total contribution of mobile sources to the entire VOC inventory by virtue of its greater accuracy in estimating exhaust VOC emissions. Since it is the relative proportions of exhaust and nonexhaust VOC emissions and not the overall magnitude of the mobile source VOC inventory which determines how difficult it will be for refiners to meet the overall VOC standard in 1998, it is unclear whether MOBILE5a would be more appropriate to use in 1998 than MOBILE4.1.

A simple model fuel evaluated using the complex model achieves more than the minimum 15% requirement of the Act using the MOBILE4.1 baseline exhaust/nonexhaust ratio but less than the 15% requirement using the MOBILE5a baseline exhaust/nonexhaust ratio. Given the uncertainty in the actual in-use exhaust/nonexhaust ratio during this interim period, it is difficult to know whether or not the 15% actually would be achieved in-use by a fuel meeting the requirements of the Simple Model. Using MOBILE4.1 to determine the baseline in 1998 would introduce some risk that the 15% minimum performance requirement of the Act would not be met in-use by a fuel meeting the requirements of the Simple Model. However, this risk is relatively small in magnitude (less than three percentage points of emission reduction are at stake) and duration (the risk exists for only two years). On the other hand, using MOBILE5a to determine the 1998 baseline would result in some risk that refiners would be required to incur greater costs to achieve a more stringent standard than the minimum required by the Act. This greater stringency would have the effect of creating a third interim phase to the RFG program.

Given the uncertainty in determining whether a MOBILE4.1-based performance standard or a MOBILE5a-based standard more accurately reflects the in-use conditions in 1998, the potential disruption to refinery operations (even if only for a small increase in the stringency of the fuel reformulation requirements), the fact that a more stringent standard in 1998 was not discussed or envisioned as part of the regulatory negotiation process, and the fact that any risk to the environment is small and of short duration, EPA does not believe it to be appropriate to base the Phase I complex model standards on MOBILE5a and require refiners to meet a more stringent performance standard in 1998. As a result, EPA will retain MOBILE4.1 with basic I/M as the basis for the Phase I performance standards under the Complex Model in 1998.

In summary, EPA has retained the VOC and NO_X baselines proposed in the SNPRM, including the relevant I/M assumptions, for use with the complex model prior to 2000. The onset of the Phase II performance standards in 2000 will increase the overall stringency of the standards, and a new baseline based on MOBILE5A will not, by itself, be the cause of new investment by refiners. By this time, enhanced I/M programs should be fully operational in nearly all reformulated gasoline areas. Therefore, baseline VOC and NO_X emission levels to be used with the complex model in Phase II are based on MOBILE5A's estimate of emissions from light-duty vehicles and trucks with enhanced I/M.

Baseline estimates of toxics emissions are not available directly from the MOBILE models. The nonexhaust toxics model bases its estimates of nonexhaust toxics on the RVP and benzene levels of the fuel. Since both of these levels are specified for Clean Air Act baseline (CAAB) gasoline, EPA has used the nonexhaust toxics model to determine the baseline nonexhaust toxics emission level. The exhaust toxics baseline has been estimated by multiplying the exhaust toxics emission level predicted by the complex model for CAAB gasoline by the ratio of baseline exhaust VOC emissions to the average exhaust VOC emission measurement in the complex model database. Since the five regulated exhaust toxic pollutants are all classified as VOCs, this adjustment sets the baseline exhaust toxics level equal to the exhaust toxics levels that would have been observed if the vehicles represented by the complex model database had VOC emission levels representative of in-use vehicles when tested on CAAB gasoline. No comments were received opposing this approach, which is discussed in more detail in Section III of the RIA.

In evaluating the performance of simple model fuels, EPA has focused its attention on the average refiner. The need to compensate for differences between individual refinery baselines and the Clean Air Act baseline when the use of the complex model becomes mandatory has been communicated in past proposals, workshops, and the discussions associated with the Agreement in Principle. Hence refiners have been given adequate notice that if their baseline fuel produces higher emissions than CAAB fuel, then they must offset such emissions when the use of the complex model becomes mandatory in 1998. The four years before use of the complex model becomes mandatory is adequate leadtime for refiners. Refiners undertaking investments to comply with the simple model requirements have been made aware of these requirements, and this transition process was inherent in the regulatory negotiation agreement and in prior proposals. EPA recognizes that the precise emissions impact of individual refiner baselines could not be determined with confidence until the Complex Model was promulgated. However, refiners were aware of at least one course of action that would satisfy the requirements of the program under the complex model, namely to alter their baseline fuel to match the Clean Air Act baseline prior to meeting the simple model requirements.

Baseline emissions of VOC, NO_x, and toxics are given in Table IV–1 for Phase I and in Table IV–2 for Phase II. Summer and winter baselines are shown for both phases, with summer baseline emissions for VOC Control Regions 1 and 2 shown separately. The toxics emission baseline shown in Table IV–1 is applicable only during 1998 and 1999 and for those refiners choosing to use the complex model prior to 1998; the baselines shown in Table IV–2 are applicable in 2000 and beyond.

TABLE IV–1.—PHASE I BASELINE EMISSIONS, MILLIGRAMS/MILE

Pollutant	Summer		
	Region 1	Region 2	Winter
Running loss VOC	430.77	390.42	0.00
Hot soak VOC	264.61	229.96	0.00
Diurnal VOC	125.09	108.71	0.00
Refueling VOC	40.01	40.01	0.00
Nonexhaust VOC	860.48	769.10	0.00
Exhaust VOC	446.00	446.00	660.00
Total VOC	1306.48	1215.10	660.00
NO_x	660.00	660.00	750.00
Running loss benzene	4.92	4.46	0.00
Hot soak benzene	3.02	2.63	0.00
Diurnal benzene	1.30	1.13	0.00
Refueling benzene	0.42	0.42	0.00
Nonexhaust toxics	9.66	8.63	0.00
Exhaust benzene	26.10	26.10	37.57
Acetaldehyde	2.19	2.19	3.57
Formaldehyde	4.85	4.85	7.73
1,3-butadiene	4.31	4.31	7.27
POM	1.50	1.50	2.21
Exhaust toxics	38.95	38.95	58.36
Total toxics	48.61	47.58	58.36

TABLE IV–1.—PHASE II BASELINE EMISSIONS, MILLIGRAMS/MILE

Pollutant	Summer		
	Region 1	Region 2	Winter
Running loss VOC	328.53	294.15	0.00
Hot soak VOC	84.11	80.97	0.00
Diurnal VOC	93.34	63.62	0.00
Refueling VOC	53.33	53.33	0.00
Nonexhaust VOC	559.31	492.07	0.00
Exhaust VOC	907.00	907.00	1341.00
Total VOC	1306.48	1215.10	1341.00
NO_x	1340.00	1340.00	1540.00
Running loss benzene	3.75	3.36	0.00
Hot soak benzene	0.96	0.93	0.00
Diurnal benzene	0.97	0.66	0.00
Refueling benzene	0.56	0.56	0.00
Nonexhaust toxics	6.24	5.51	0.00
Exhaust benzene	53.54	53.54	77.62
Acetaldehyde	4.44	4.44	7.25
Formaldehyde	9.70	9.70	15.34
1,3-butadiene	9.38	9.38	15.84
POM	3.04	3.04	4.50
Exhaust toxics	80.10	80.10	120.55
Total toxics	86.34	85.61	120.55

Exhaust Emissions Model

1. Data Sources

The relationship between fuel properties and exhaust emissions is complex and the theory behind such relationships continues to be developed. As a result, EPA has asked industry, state regulatory agencies, and other organizations with relevant test data to make their data available to the Agency to ensure that this rule is based on as much relevant information as possible. The complex model described in the following section is based on data generated from a number of exhaust emissions testing programs. These programs, their design intent, and their limitations are discussed in Section IV.A of the RIA. Data from these programs were excluded from EPA's analysis if the data were not based on a valid FTP measurement cycle, if the vehicle in question did not employ 1990-equivalent emission control technology, if the vehicles did not exhibit stable, repeatable emissions performance, or if the data were clearly inconsistent with the bulk of the data available to EPA (based on statistical considerations). In addition, data from programs that did not measure nonmethane hydrocarbon emissions were not used to develop EPA's exhaust VOC complex model. The Agency believes its analysis considered all valid, and relevant data on the exhaust emissions effect of fuel modifications when used in 1990 model year and

equivalent vehicles that was available at the time the model was developed.

2. Analysis Method

Exhaust emissions are affected by both vehicle and fuel characteristics. Since the test programs described above generally involved different vehicles, different fuels, and in some cases different test procedures, the analysis required to determine the relationship between fuel properties and emissions is complex. However, EPA believes that the methods used to develop the complex model considers and addresses these complexities appropriately. EPA utilized statistical analysis techniques to isolate the effects of fuel modifications on exhaust emissions of VOC, NO_X, and toxics from other factors affecting exhaust emissions.

At a series of six public workshops held over the past two years, the Agency presented its views on data sources, analysis methods, and preliminary emissions models for public review and comment. The Agency also requested other organizations to share their data, analysis expertise, and emissions models at these workshops. The methods used to develop the model promulgated today appropriately incorporate the comments and suggestions regarding the analysis process received at the workshops, as well as other comments and suggestions received from industry, state and federal government authorities, and other interested parties during the course of this rulemaking. Information regarding the workshops, public comments and suggestions, and EPA's analysis methods can be found in Docket A–92–12. The approach chosen by EPA to analyze the available data is summarized below and is discussed more fully in Section IV.A of the RIA.

Since the vehicle and the fuel both affect exhaust emissions, EPA's analysis separated exhaust emissions into fuel components and vehicle components. In all test programs analyzed by EPA, the single most significant determinant of the level of emissions from a given vehicle on a given fuel was the vehicle itself. Fuel properties exert a much smaller influence on exhaust emissions than do vehicle characteristics such as emission control system technology, vehicle mileage, catalyst efficiency, oxygen sensor efficiency, engine size, engine design, vehicle size, fuel efficiency, vehicle maintenance, etc. To identify the effects of fuel property modifications on emissions, EPA found it necessary to identify the effect of each vehicle on emissions and separate this effect from the fuel effects. For vehicles used in more than one test program, EPA found it necessary to determine the vehicle effect separately for each test program since vehicle effects were observed to change between studies.

The fuel components of exhaust emissions were separated into two main categories. The first category consisted of the effects of individual fuel parameters. For example, the effect of sulfur on NO_X emissions was best modeled by a relationship containing a linear sulfur term (of the form c_1S, where c_1 is a constant and S is the sulfur level) and a second-order sulfur term (of the form c_2S^2, where c_2 is a constant). The second category of fuel terms consisted of interactive effects between two fuel parameters. For example, EPA's analysis found that the effect of aromatics on hydrocarbon emissions is related to the E300 level of the fuel. This effect cannot be represented as an aromatics or E300 effect alone but must be represented as an interactive term of the form c_3AE, where c_3 is a constant, A is the aromatics level, and E is the E300 level.

In the February 1993 proposal, EPA indicated that it planned to make several changes to the method used to develop the complex model. As discussed in that proposal and in the RIA, fuels can be characterized in terms of a number of different sets of fuel parameters. EPA used the results of individual fuel studies and its public workshops to select the set of fuel parameters used to model exhaust emissions in its February 1993 proposal. At that time, the Agency indicated that it might alter its choice of parameters to represent gasoline distillation characteristics from a temperature basis (using T50 and T90) to a percent evaporated basis (using E200 and E300, the percentage of the fuel's volume that evaporates when heated to 200°F and 300°F, respectively). For reasons outlined in the February 1993 NPRM and section IV.A of the RIA, EPA has chosen to make this change and has converted its exhaust emission models to a percent evaporated basis since the NPRM was issued, removing the T50 and T90 terms from its models in the process. The Auto/Oil Heavy Hydrocarbon and EPA Phase II Reformulated Gasoline Test Program studies have been added to the complex model database. Finally, EPA has changed the confidence level required to permit terms to remain in the model to 90 percent, in keeping with the approach used in developing the simple model. The Agency was not able to determine the influence of the type of aromatic compounds in fuels, specifically heavy aromatics, on exhaust emissions, and hence such terms have not been included in the complex model at this time.

Because vehicles can have different emission control systems, the Agency anticipated that fuel modifications would have different emission effects on different types of cars. To account for these differences, EPA's February 1993 proposal divided vehicles into two "emitter classes" (normal and higher emitters) based on their exhaust emission levels. EPA then subdivided vehicles in each emitter class into "technology groups" based on the emission control technology with which each vehicle was equipped. However, as discussed in the NPRM, EPA was concerned that technology group distinctions among higher emitters might not be appropriate, since such vehicles' high level of emissions indicated that their emission control systems were not functioning properly. In addition, the limited quantity of data for higher emitters made it difficult to identify genuine differences in emissions response between higher emitters of different technology groups. Many commenters expressed similar concerns. Hence the model promulgated today does not divide higher emitters into technology group categories but retains such distinctions when analyzing normal emitters. In response to numerous comments, EPA attempted to reduce the number of normal emitter technology groups. However, as discussed in section IV.A of the RIA, EPA was unable to identify an appropriate basis for consolidation. EPA considers its retention of emitter class and technology group distinctions to be justified by the presence of statistically significant fuel effects specific to individual emitter classes and technology groups in today's complex model.

At the same time, EPA recognized the validity of comments received from a number of sources that (1) many emission effects were likely to be consistent across multiple technology groups or across emitter classes, and (2) insufficient data were available to model many potential terms, particularly interactive terms. The approach used by EPA to construct the complex model proposed in February 1993 did not incorporate these legitimate concerns. To do so, EPA has utilized a modified version of the "unified" approach advocated by API and other commenters (as described in the RIA) to develop today's complex model. This modeling approach, the statistical criteria used by EPA in conjunction with this approach, and the techniques used to simplify the models

are discussed in detail in section IV.A of the RIA and are summarized below.

First, interactive terms were permitted to enter the models only when sufficient data were available. The model proposed in the February 1993 NPRM permitted all interactive terms to enter the models, regardless of whether sufficient data were available to estimate such an effect, and it did not apply statistical criteria to evaluate whether terms added to the model introduced more risk of inaccuracy in the model than they removed.

Second, preliminary models for higher emitting vehicles were constructed based solely on data from such vehicles. Only those terms that satisfied EPA's statistical criteria (discussed at length in the RIA) were retained. These criteria included measures to balance overfitting (introducing too many terms to explain the observed data) and underfitting (not including terms necessary to explain the observed data). The NPRM model did not include measures to prevent overfitting.

Third, the entire database was analyzed using the unified approach. The effects of each term on emissions was divided into two parts: an average effect across all vehicles, and a series of adjustment terms for each technology group and for higher emitters. Only those terms that satisfied EPA's statistical criteria were retained, with two exceptions. Higher emitter adjustment terms were retained regardless of statistical significance since they had been found to be statistically significant when examining the higher emitter data separately. EPA was concerned that failure to do so might cause genuine higher emitter effects to be "washed out" by the greater number of data for normal emitters. In addition, some overall terms were retained for hierarchy reasons despite low statistical significance. For example, a linear term for a given fuel parameter (e.g., E300) might not be significant while a squared term for the same parameter (e.g., $E300^2$) might be significant. Since the mathematical form of the squared terms includes the corresponding linear effects, the linear term would be retained regardless of significance to preserve the model's hierarchical structure. The importance of hierarchy was emphasized by a number of workshop participants and commenters, as discussed in the RIA. The NPRM model included separate terms for each technology group and emitter class and hence did not include terms to represent the average effect of a fuel parameter across all vehicles. The NPRM model also did not incorporate hierarchy considerations.

Fourth, outlying and overly influential data were dropped from the database and the model was re-estimated based on the remaining data. Outlying data consist of observations that differ from the average observed effect by so large a margin that they are more likely to represent observational error, reporting error, or other measurement artifacts than genuine phenomena. Outlying data can obscure genuine emissions effects. Influential data consist of observations that by themselves materially affect the resulting model, i.e., the model would differ materially if they were excluded. In a database the size of the Complex Model database, individual data points should not have such unusually large effects. Excluding outlying and influential observations is standard statistical practice. The NPRM model did not exclude either type of observation.

Fifth, terms were deleted from the resulting model to avoid overfitting and collinearity problems. Overfitting occurs when so many terms are included in a regression model that the expected error due to the erroneous inclusion of a term exceeds the expected error due to not including the term. Collinearity problems occur when the fuel parameters included in the model are correlated with one another in the fuels tested. For example, the addition of oxygenate to gasoline causes E200 to increase. The oxygenate-containing fuels in the complex model database tend to have higher E200 values than fuels without oxygenate. In a sense, one can predict the E200 value of a fuel by knowing its oxygen content. Hence these two parameters would be considered to be highly collinear. Since regression models are developed under the assumption that terms are not collinear, the presence of strong collinearities can introduce error into the regression. Today's complex model takes both collinearity and overfitting into account by using a standard statistical criterion called Mallow's C_p criterion to remove terms which introduce large overfitting and collinearity problems. This approach resulted in a simpler, more reasonable, and statistically more sound model than had been proposed in the February 1993 NPRM. It should be noted that high emitter terms forced into the model earlier in the process could be dropped at this stage of the analysis. Measures were taken to limit collinearity problems in the NPRM model, but overfitting concerns and the C_p criterion were not addressed.

Sixth, the contribution of each remaining term to the model's explanatory power was estimated, and those terms whose contribution summed to less than one percent were deleted (i.e., the retained terms accounted for 99 percent of the explanatory power of the model) to simplify the form of the model without materially reducing its ability to predict the emissions impact of fuel modifications. This step was not taken during development of the NPRM model.

Finally, the resulting models for each technology group within the set of normal emitting vehicles were consolidated into a single equation using a random balance approximation. The details of that approximation are given in Section IV.A of the RIA. This step was not taken during development of the NPRM model.

The results of EPA's modeling efforts confirms the importance of technology group and emitter class distinctions, as can be seen by examining the differences in the exhaust emission equations for specific normal emitter technology groups or for normal and higher emitter class categories (as discussed in greater detail in the RIA). Efforts to reduce the number of technology group categories for normal emitters were not successful. Efforts to subdivide higher emitters by their emission characteristics such as exhaust hydrocarbon to NO_X ratio did not improve the quality of EPA's higher emitter model. However, as discussed above, EPA found it unnecessary to separate higher emitters by technology group. This modification reflects EPA's belief, supported by preliminary field information, that one or more emission control components on higher emitters tend to be malfunctioning, which renders a classification scheme based on vehicle equipment questionable.

3. Exhaust Model

As was discussed in the April 1992 and February 1993 proposals, the weight assigned to each technology group or emitter class for modeling purposes was set equal to its contribution to in-use emissions for each pollutant. The weight assigned to each emitter class was set equal to its projected contribution to in-use emissions. The weighting factor assigned to normal emitters was then broken down further by technology group, again according to their projected contribution to in-use emissions. These estimates and projections are essentially unchanged from the February 1993 proposal, although minor changes have been made to reflect more complete

information about the fraction of 1990 sales accounted for by each technology group. The rationale for, derivation of, and renormalization of the weighting factors themselves are discussed in more detail in the RIA.

Various commenters indicated that they considered EPA's previously proposed models were too complex. In response, the Agency has modified its analysis method in several ways. The resulting method, described in Section IV.B.2, results in exhaust emission models containing two equations for each pollutant instead of as many as sixteen separate equations, as was the case for the model proposed in February 1993. Each equation also has far fewer terms than the February 1993 equations. However, EPA does not believe that today's less complicated complex model is less accurate than the complex models presented at public workshops or in the February proposal. This belief is based on the models' comparable explanatory power (as reflected in their similar R^2) and the superior accuracy of today's model in accounting for the emission effects seen in the vehicle testing programs that comprise the complex model database. Today's VOC and NO_X models are based on the most accurate of the three sets of models included in EPA's July 14, 1993 docket submittal, while also taking into account relevant comments regarding specific aspects of the models. Today's toxics models are a further simplification of the models included in the July 1993 docket submittal in response to comments received by EPA on its docket submittal. These points are discussed more fully in Section IV.A of the RIA.

The specific equations that comprise the complex model can be found in section 80.45 of the regulations for this rule. Their derivation is discussed in detail in Section IV.A of the RIA. The range of parameter values for which these equations are valid is discussed in Section D and in Section IV.D of the RIA. As discussed in Section V, refiners are required to submit data to augment the model if they wish to certify fuels with properties that fall outside this range as reformulated gasolines.

C. Nonexhaust Model

Nonexhaust emissions are less strongly affected by vehicle design and are influenced by fewer fuel characteristics than are exhaust emissions. In addition, the theoretical principles involved in nonexhaust emissions (which include evaporative, running loss, and refueling emissions) are better understood, and nonexhaust emission control technologies are more consistent across vehicles, than are exhaust emissions and emission control technologies. Since the relationship between fuel properties and nonexhaust emissions is less complex and better understood than for exhaust emissions, there was much less need for EPA to generate additional data to evaluate nonexhaust emissions than was the case for exhaust emissions. EPA was able to base its nonexhaust VOC emission model on data generated from EPA's ongoing nonexhaust emissions testing program that has been used to develop EPA's MOBILE emission inventory models, specifically the MOBILE4.1 and MOBILE5.0A models. EPA believes this data to be sufficient to model the relationship between fuel properties and nonexhaust VOC emissions for the purposes of this rule. Additional information about MOBIL4.1 and MOBILE5.0A can be found in Dockets A–91–02 and A–92–12.

EPA is in the process of developing an enhanced model of nonexhaust VOC emissions, based on a more complete set of theoretical principles and additional test data, that is expected to be more accurate and more widely applicable to oxygenated fuels than the MOBILE models. A preliminary version of this model was discussed at a public workshop held on August 25, 1992, and materials related to this model have been placed in the docket for this rulemaking. At this time, however, this enhanced nonexhaust VOC emissions model is not complete and hence is not incorporated in today's complex model.

The nonexhaust VOC model in today's complex model is based on correlations between RVP and nonexhaust VOC emissions derived from the July 11, 1991 version of MOBILE4.1 for Phase I of the reformulated gasoline program (1995–1999) and from MOBILE5A for Phase II (2000 and beyond). This approach is consistent with the definition of baseline emissions set forth in Section IV.A and is based on the same considerations outlined in that section.

To develop the correlations shown below, the MOBILE models were used with temperatures of 69 to 94 degrees Fahrenheit for Class B areas and 72 to 92 degrees Fahrenheit for Class C areas. As discussed in Section IV.A, a basic inspection and maintenance program was assumed for Phase I while an enhanced I/M program was assumed for Phase II. In addition, the presence of Stage II evaporative emissions recovery systems with an overall vapor recovery efficiency of 86 percent was assumed (as discussed in the SNPRM and NPRM). EPA is in the process of promulgating requirements for onboard refueling emission controls which may be more effective at controlling refueling emissions than Stage II vapor recovery systems. However, these requirements did not apply to 1990 model year vehicles and hence cannot be incorporated into the model for certification purposes. In addition, EPA has chosen not to incorporate the effects of onboard refueling controls in its evaluation of the effects of reformulated fuels on emissions from the entire in-use vehicle fleet, which includes vehicles from a number of different model years. This decision was made for several reasons. First, requirements for onboard refueling controls have not yet been finalized, making evaluation of their impact on in-use emissions difficult. Second, onboard refueling controls are not expected to be required on all new vehicles until 2000 and are not expected to be present on the bulk of in-use vehicles for several years after that time. Third, while onboard controls are expected to be more efficient at controlling refueling emissions than Stage II controls, the difference is not expected to be large in areas affected by the reformulated gasoline program and will affect only a small portion of total nonexhaust VOC emissions. Since EPA's analysis of the additional benefits of onboard vapor recovery controls is not yet available, and since such benefits are expected to be small relative to overall emissions, EPA has chosen to retain its assumptions regarding Stage II vapor recovery in forecasting the effects of fuel modifications on nonexhaust VOC emissions from the in-use vehicle fleet.

The only toxic air pollutant covered by the reformulated gasoline program that is found in nonexhaust emissions is benzene, which is a natural component of gasoline. The other four toxic air pollutants listed in section 211(k) are solely products of fuel combustion and hence are not found nonexhaust emissions. As discussed in the SNPRM, the Agency's correlation between fuel benzene content and summer non-exhaust benzene emissions is based on results from General Motors' proprietary model of tank vapors, as confirmed independently by EPA-generated data using a number of fuels. Both the derivation and verification of the non-exhaust benzene emissions model are discussed more fully in the RIA. The nonexhaust benzene emission model also depends on the RVP of the fuel, as is the case for the nonexhaust VOC emission model. The derivation of the nonexhaust benzene and VOC models is discussed more fully in the RIA.

D. Range/Extrapolation

Like all regression models, the complex model is not valid for all possible input values. The range of fuel parameter values over which the complex model accurately predicts vehicle emissions is given in Table IV–3. These ranges are based on the range of data used to develop the models and on comments received by the Agency on this issue. The limits proposed in the February 1993 were, in some cases, narrower than the range of data used to develop the complex model. In addition, the limits proposed in the NPRM would have prevented a number of very low emitting fuels from being certified using the model.

TABLE IV–3.—PARAMETER RANGES FOR WHICH THE COMPLEX MODEL CAN BE USED

Fuel Parameter	Valid range for:	
	Reformulated fuel	Conventional fuel
Aromatics, vol %	0–50	0–55
E200, %	30–70	30–70
E300, %	70–100	70–100
Olefins, vol %	0–25	0–30
Oxygen, vol %	0–3.7	0–3.7
RVP, psi	6.4–10	6.4–11
Sulfur, ppm	0–500	0–1000
Benzene, vol %	0–2.0	0–4.9

EPA has received a number of comments requesting alterations in the model's range. After considering these comments and re-evaluating the data on which the complex model is based, EPA has modified the range limits. In some cases, EPA has chosen to extrapolate the complex model slightly beyond the range for which data were available in order to allow additional fuels, both conventional and reformulated, to be evaluated using the model without recourse to expensive and time-consuming vehicle testing. These extrapolations are limited to those parameters whose effects appear to be well-characterized by the complex model. A detailed discussion of the limits of the available data, EPA's rationale for extending the valid range of the model for some parameters, and the extrapolation method used to extend the model can be found in Section IV.D of the RIA.

E. Winter

While the VOC performance standard for reformulated fuels applies only in the summer, the toxics and no-NO_x-increase requirements apply year-round. EPA therefore recognized the need to model the exhaust toxics and NO_x emissions performance of reformulated gasolines during the winter months as well as during the high ozone season. Modeling winter emissions performance, however, presented a number of difficulties. First, the data sources described earlier provided data on emissions performance only under summer conditions and for gasolines with RVP levels typical of summer gasolines. Second, the RVP levels of fuels included in the complex model database ranged from 7 to 10 psi, while winter fuels tend to have RVP levels in the 11.5 psi range and are not restricted by other regulations. Hence the complex model cannot be used directly for fuels with typical winter RVP levels.

RVP's impact on canister loading and subsequent purging is thought to be the primary cause of its effects on exhaust emissions. Since data do not exist on the effects of winter fuels on canister loading under winter conditions, the Agency is not able at this time to model the effects of winter RVP levels on exhaust emissions. To avoid making unsound or speculative predictions, EPA proposed and is now promulgating a requirement that for purposes of evaluating emissions effects using the complex model, the RVP of winter fuels be set at the summer statutory baseline RVP value. In effect, this requirement builds into the model the assumption that the RVP level of winter gasolines has no effect on NO_x or exhaust toxics emissions. As a result, refiners will not be required to alter the RVP levels of winter gasolines. Refiners will receive neither benefit nor penalty for changing the RVP of their winter gasolines. To evaluate winter fuels using the complex model, an RVP value equal to that of summer baseline gasoline (8.7 psi) must be used instead of the fuel's actual RVP. Doing so effectively removes the contribution of RVP to winter exhaust emissions.

When sufficient data is developed on the emissions impact of winter RVP levels under winter ambient conditions, EPA will be able to revise the complex model accordingly. Until then, EPA believes it is more appropriate to assume that RVP levels have winter exhaust emission effects than to speculate about the magnitude of such impacts.

In its prior proposals, EPA had proposed that winter nonexhaust emissions, including winter nonexhaust benzene emissions, be considered zero. EPA received a number of comments requesting that both baseline emissions and the nonexhaust toxics model include winter nonexhaust benzene emissions. This request was based on the belief that the year-round benzene limits would result in reduced nonexhaust benzene emissions in the winter months. EPA has evaluated this claim, taking into account temperature ranges and the effects of inspection and maintenance programs on such emissions. EPA acknowledges the validity of this claim, since winter nonexhaust emissions, including nonexhaust benzene emissions, are likely to be nonzero under all winter temperature ranges. In the past, the lack of sufficient data on nonexhaust emissions under winter temperature conditions has prevented EPA from developing reliable, accurate models of winter nonexhaust emissions. The commenters provided a limited quantity of data on winter nonexhaust emissions to support their claim. However, the data submitted in support of this claim were based on measurements of nonexhaust emissions from vehicles with very low nonexhaust emissions. EPA's analysis indicates that these vehicles are not representative of in-use vehicles. In addition, the chemical composition of the measured nonexhaust emissions were characteristic of resting losses (losses that occur due to permeation through fuel system components) rather than of diurnal, hot soak, or running loss emissions. Resting losses are not included in EPA's baseline emission estimates, so EPA does not consider it appropriate to include resting losses in its nonexhaust emission models. Finally, no data were submitted on nonexhaust benzene emissions from fail vehicles under winter conditions. Since nonexhaust benzene emissions from such vehicles will comprise a significant portion of winter nonexhaust benzene emissions, EPA is concerned that a model based on the submitted data would not provide accurate estimates of such emissions. Given the theoretical merits of the claim, however, EPA will consider including a model of winter benzene nonexhaust emissions in the complex model in the future when sufficient data become available.

F. Fungibility

EPA has long recognized the importance of maintaining a fungible fuel system, in which complying gasolines can be mixed freely without resulting in mixtures that do not themselves comply with regulatory requirements. Fungibility is essential to smooth, cost-effective operation of fuel distribution systems such as pipelines. The Agency has received numerous comments on the need to maintain fungibility. At the same time, the Agency considers it essential that gasolines certified as reformulated meet

all required emission performance levels in the field. In cases where the effects of a given fuel parameter on emissions are non-linear, it is possible for two complying fuels to produce a non-complying fuel when mixed.

The complex model contains a number of nonlinear terms, which introduces the possibility that gasolines which comply with this rule's requirements in isolation would not comply if mixed with other complying fuels. EPA has been concerned with this possibility and has undertaken extensive analyses to determine its likelihood and to develop methods to cope with its occurrence. EPA's analyses, which have utilized methods that have been supported by a number of organizations, indicate that the complex model promulgated in today's rule will not create fungibility problems despite its inclusion of nonlinear terms. This analysis is explained in greater detail in Section IV.F of the RIA.

G. Future Model Revisions

The complex model promulgated in this rulemaking reflects EPA's best understanding of the relationship between fuel characteristics and vehicle emissions. However, EPA expects future research to clarify this relationship. EPA also recognizes that changes in in-use vehicle emission control programs (e.g., I/M programs) will continue to occur and that these changes may alter the relationship between fuel characteristics and in-use emissions. In addition, the Agency is concerned that augmentations to the model through vehicle testing (Section V) may, over time, accumulate to the point that a revised complex model, incorporating the current complex model database and all relevant information gathered since then, would be beneficial. As discussed in Section V, EPA plans to issue revised complex models when the Agency deems that sufficient new information is available to warrant such action. Model revisions will be developed through a formal rulemaking process.

H. Complex Model Performance of Simple Model Fuels

Fuels qualifying as reformulated under the simple model must meet specified benzene, oxygen, and RVP requirements while also satisfying the toxics performance standard. The RVP requirement differs between VOC control regions, and the requirements and standards also vary depending on whether compliance is being achieved on a per-gallon or averaging basis. In addition, levels of other fuel parameters are only specified under the simple model in terms of deviations from each refiner's baseline fuel. Evaluating the performance of simple model fuels under the complex model is difficult since fuel properties can vary widely.

However, it is possible to evaluate a set of fuels that are representative of expected, typical simple model fuels. EPA expects most refiners to pursue compliance on average (for all or part of their product slate) in order to maximize flexibility in day-to-day refinery operations and recoup compliance margins. Given present and projected conditions, EPA also expects that MTBE and ethanol will be the most commonly used oxygenates during Phase I of the reformulated gasoline program. The fuels specified in Tables IV–4 and IV–5 below include fuels designed to meet the requirements of the simple model in both VOC control regions and using both oxygenates. The level of olefins, sulfur, E200, and E300 have been set to Clean Air Act baseline levels, while the level of aromatics has been set at the level necessary to comply with the toxics requirements of the simple model. Aromatics levels were assumed to be the same for summer and winter fuels.

TABLE IV–4.—TYPICAL SIMPLE MODEL FUELS USING MTBE

[Under Averaging]

	Fuel			
	1	2	3	4
Fuel Description:				
Season	Summer	Summer	Winter	Winter
VOC Control Region	1	2	1	2
Fuel Parameter:.				
RVP, psi	7.1	8.0	N/A	N/A
Oxygen, wt%	2.1	2.1	2.1	2.1
Benzene, vol%	0.95	0.95	0.95	0.95
Aromatics, vol%	27.5	26.3	27.5	26.3
Olefins, vol%	9.2	9.2	11.9	11.9
E200, %	41	41	50	50
E300, %	83	83	83	83
Sulfur, ppm	339	339	338	338

TABLE IV–5.—TYPICAL SIMPLE MODEL FUELS USING ETHANOL

[Under Averaging]

	Fuel			
	5	6	7	8
Fuel Description:				
Season	Summer	Summer	Winter	Winter
VOC Control Region	1	2	1	2
Fuel Parameter:.				
RVP, psi	7.1	8.0	N/A	N/A
Oxygen, wt%	2.1	2.1	2.1	2.1
Benzene, vol%	0.95	0.95	0.95	0.95
Aromatics, vol%	25.5	24.3	25.5	24.3
Olefins, vol%	9.2	9.2	11.9	11.9
E200, %	41	41	50	41

TABLE IV–5.—TYPICAL SIMPLE MODEL FUELS USING ETHANOL—Continued
[Under Averaging]

	Fuel			
	5	6	7	8
E300, %	83	83	83	83
Sulfur, ppm	339	339	338	338

The performance of these fuels according to the complex model (using the MOBILE4.1 baseline as previously discussed) is summarized in Table IV–6.

TABLE IV–6.—PERFORMANCE OF TYPICAL SIMPLE MODEL FUELS UNDER THE PHASE I COMPLEX MODEL
[Under Averaging][1]

Fuel	Emission reduction versus CAAB fuel (percent)				
	Exhaust VOC	Nonexhaust VOC	Total VOC	NO_x	Toxics
1	7.92	51.42	36.57	1.46	27.33
2	5.35	23.93	17.11	1.28	24.57
3	0.33	N/A	0.33	−0.21	12.83
4	0.80	0.00	0.80	0.04	13.87
5	8.64	51.42	36.82	1.90	25.70
6	6.09	23.93	17.38	1.76	22.56
7	3.55	N/A	3.56	0.58	11.52
8	4.01	N/A	4.01	0.88	12.48

[1] Performance of summer fuels (#s 1, 2, 5, 6) given relative to that of Clean Air Act summer baseline fuel. Performance of winter fuels (#s 3, 4, 7, 8) given relative to that of the winter baseline fuel defined in Section III.

I. Phase I Performance Standards Under the Complex Model

All fuels produced during Phase I of the reformulated gasoline program must meet the VOC, toxics, and NO_x requirements of the Act. Fuels certified using the complex model in Phase I must show either no increase in NO_x emissions from baseline levels on a per-gallon basis as discussed in the February 1993 proposal or a 1.5% reduction from baseline levels on average as discussed in Section VII. In addition, as discussed in Section III.E., such fuels must result in either a 15% reduction in total toxics emissions from baseline levels on a per-gallon basis or a 16.5% reduction in total toxics emissions from baseline levels on average.

With regard to the VOC standards, EPA considers fuels produced to meet the provisions of the simple model to be producible. Thus, as discussed in the February 1993 proposal, EPA believes it feasible to base the Phase I standards for VOC emissions on the performance of fuels that meet the Simple Model requirements, provided that this performance is more stringent than minimum performance required by the Act. EPA considers the fuels whose VOC performances were evaluated in Section IV.H to be representative of Simple Model fuels. Under the reformulated gasoline program, VOC emissions are controlled only during the high ozone season. For this reason, the VOC performance standard has been determined by the performance of the Phase I summer fuels presented in Section IV.H. Since these fuels achieve emissons reductions that equal or exceed the minimum requirements set forth in the Act, the VOC performance standard during Phase I for fuels certified under the complex model has been based on the performance of these fuels. Setting the VOC performance standards in 1998–1999 equal to this VOC performance level, which EPA believes to be a reasonable estimate of the average performance of fuels produced in 1995–1997, preserves the integrity of the two-phase program specified by Congress and is consistent with the Agreement in Principle signed in 1991.

The summer VOC performance of "typical" high ozone season simple model reformulated gasolines according to the complex model is presented in Table IV–6. In VOC Control Region 1, the simple model fuel reduces VOC emissions by 36.6 percent for the MTBE-containing fuel (Fuel 1) and 36.8 percent for the ethanol-containing fuel (Fuel 5). Since the 1998 performance requirements in VOC Control Region 1 are to be based on the performance of typical simple model fuels, and since Fuels 1 and 5 both satisfy the simple model requirements and are considered by EPA to be representative of typical simple model fuels, EPA has set its 1998 performance standards in VOC Control Region 1 so as to permit both of these fuels to meet the 1998 performance standards. In addition, EPA considers Fuel 1 to be more representative of typical simple model fuels in VOC Control Region 1 since MTBE does not boost fuel RVP levels to the extent that ethanol does. As was discussed in the April 1992 and February 1993 proposals, EPA believes that per-gallon performance standard should be set 1.5 percentage points below the averaging performance standard. Hence high ozone season fuels certified using the complex model during Phase I of the reformulated gasoline program must provide a VOC emission reduction from baseline levels of 36.6 percent when complying on average and 35.1 percent when complying on a per-gallon basis. Similarly, high ozone season fuels certified using the complex model during Phase I in VOC Control Region 2 must provide a VOC emission reduction from baseline levels of 17.1 percent when complying on average and 15.6 percent when complying on a per-gallon basis. These standards are summarized in Table IV–7 for both VOC

control regions, under averaging and per-gallon compliance. Note that a negative performance standard signifies a reduction from baseline emission levels.

TABLE IV–7.—REFORMULATED GASOLINE PERFORMANCE STANDARDS RELATIVE TO CLEAN AIR ACT BASELINE GASOLINE FOR 1998–1999

[Percent]

Emission	VOC control region 1		VOC control region 2	
	Average	Per gallon	Average	Per gallon
VOC	−36.6	−35.1	−17.1	−15.6
Toxics	−16.5	−15.0	−16.5	−15.0
NO_X	−1.5	0.0	−1.5	0.0

In summary, the per-gallon and averaging VOC performance standards under the complex model during Phase I is set by the performance of the corresponding simple model fuel when evaluated using the complex model. The toxics performance standard is set at the statutory requirement of a 15 percent reduction from baseline levels for per-gallon compliance and a 16.5 percent reduction for compliance on average. Similarly, the NO_X performance standard under the complex model during Phase I must satisfy the no NO_x increase requirement on a per-gallon basis, or meet a 1.5% reduction for compliance on average.

V. Augmenting the Models Through Testing

During the regulatory negotiation process, vehicle testing and emission modeling procedures for certifying that a gasoline complies with the NO_X, toxics, and VOC requirements were discussed. Emission models such as the simple model described in Section III and the complex model described in Section IV offer several advantages over testing to determine emission effects. First, models can better reflect in-use emission effects since they can be based on the results of multiple test programs. Second, individual test programs may be intentionally or unintentionally biased due to vehicle selection, test design, and analysis methods. Third, fuel compositions tend to vary due in part to factors beyond the control of fuel suppliers such as variations in crude oil compositions and the inherent variability of refining processes. As a result, without one or more modeling options, each batch of fuel would have to be tested to ascertain its emission performance. Such levels of testing are neither desirable (because of the potential for intentional or unintentional bias in vehicle test programs) nor practical (because of the time and expense involved in vehicle testing). Fourth, models make more efficient use of scarce and expensive emission effects data than is possible otherwise. For these reasons, EPA believes that the modeling options outlined above are necessary for the reformulated gasoline program to achieve its environmental objectives and to minimize the costs of the program.

These emission models, however, reflect currently-available information and hence do not allow refiners to take advantage of emission benefits derived from new fuel additives or changes in fuel parameters not contained in the models. To allow for fuel technology development and innovation, the Agency also believes that testing has a role in certification as a means of supplementing the models. This section contains a detailed discussion of the provisions EPA is promulgating regarding the conditions under which testing is permitted, the manner in which test results can be used to supplement the models, and the minimum requirements for vehicle testing programs. As was first outlined in the February 1993 NPRM, the vehicle testing process described in this section has undergone significant changes since it was first proposed in the April 1992 SNPRM. These changes have been made in response to changes in EPA's approach to modeling the relationship between fuel properties and emissions, as described in Section IV, and comments received in response to the April 1992 and February 1993 proposals. The following discussion addresses the major substantive comments received by EPA regarding certification of fuels by vehicle testing. A detailed summary and analysis of comments can be found in Section IV.G of the RIA.

A. Applicability of Testing

Vehicle testing is the primary way that the effects of various gasoline formulations on motor vehicle emissions can be determined. As described above, data from vehicle testing programs forms the bulk of the basis for the simple and complex models.

EPA believes that fuel certification through single test programs is inherently less reliable than certification through a testing-based model. The simple and complex models developed by EPA are based on a far greater amount of testing than would be available from any single test program. These models incorporate and balance the varying and conflicting results of numerous test programs. The statistical variation associated with an individual test program may cause a fuel to show emission effects during testing that would not occur in-use. Therefore, EPA proposes that testing only be permitted to augment the models for fuel effects that are not covered in the models.

B. Augmenting the Simple Model

Due to the belief that fuels certified by vehicle testing should be evaluated in conjunction with the most complete emission model available to more accurately determine the emission benefits of the fuels being tested, EPA proposed that vehicle testing be permitted to augment the simple model only for the effect of oxygenates on NO_x emissions beyond the simple model's oxygen caps. All other testing was to have been performed to augment the complex model. Based on data collected since the time of the proposal on the effect of oxygenates on NO_x, EPA no longer believes it appropriate to augment the simple model even in the limited manner described above. Considerably more data are available in the complex model database regarding the effect of oxygenates on NO_x emissions than would be provided by any individual test program. Therefore, testing can only be performed to augment the complex model. Fuels with oxygen concentrations in excess of 2.7 weight percent must be certified using the complex model.

C. Augmenting the Complex Model

EPA believes that the objective of testing under the complex model should be to evaluate the emission effects of fuels whose emission effects cannot be adequately represented by the model. Such fuels would include fuels claiming emission effects from parameters not included in the complex model and fuels containing complex model parameters at levels beyond the range covered by the model. Without this constraint, it may be possible for a fuel producer to use the statistical variation associated with testing to claim emission effects through testing which would not be demonstrated in-use, when tested to a greater degree, or when modeled. For example, a fuel that would fail to meet the VOC requirement by a small margin when evaluated under the complex model could be tested and shown to meet the VOC requirement due to the testing error associated with any vehicle testing program. In addition, allowing testing of existing modeled parameters essentially would make the complex model, and the associated emission performance standards, a fluid target. Fuel producers would lose the certainty associated with a fixed model and the confidence that their capital investments will be useful for a fixed amount of time. Therefore, vehicle testing can be used only to determine the emission effects of parameters not adequately represented by the complex model. The emission effects of the fuel parameter in question will be determined by combining the emission effects determined through vehicle testing with the emission effects predicted by the complex model. Furthermore, each testing program can be used to identify the effects of only one new fuel parameter, unless the changes in other fuel parameters are a natural and inherent consequence of the primary fuel modification. Without this constraint, EPA believes that accurate determination of the effects of specific fuel parameters would be more difficult due to the inherent variability in testing programs and the increased opportunities for gaming.

In addition, fuel suppliers opting to augment the complex model through vehicle testing must examine the extent to which emissions are affected when fuels certified with the augmented complex model are mixed with other fuels. The Agency is concerned with two potential problems when different fuels are combined. First, the emission effects of a parameter, as determined from vehicle testing, may not behave linearly as fuels with one level of the parameter are mixed with fuels with different levels of the same parameter. The degree to which this process occurs is referred to in this notice as the parameter's dilution effect. Dilution effects are evident in the complex model proposed in February 1993 and in the model being promulgated today. Second, the emission effects of various fuel parameters may be affected by the level of other fuel parameters. The degree to which this process occurs is referred to in this notice as an interactive effect. If such effects are present (as in the complex model proposed in February 1993 and in the complex model being promulgated today), actual emission performance of the fuel mixture in-use could be worse than emission performance predicted from the complex model augmented by vehicle testing results. Therefore, the testing process must be structured so as to identify dilution and interactive effects.

D. Advance Approval of Test Programs

Given the number of factors involved in designing a test program, the potential for inappropriate design is high. EPA wishes to avoid submittal of petitions based on test data from poorly designed programs in order to assure that the time and money invested in such programs is well-spent and to assure that all augmentations to the model are based on accurate data from well-designed test programs. Hence EPA will require petitioners to obtain advance approval from the Agency for their proposed vehicle testing programs. EPA will consider petitions to augment the model only if based on the results of approved testing programs. Furthermore, EPA retains the discretion to evaluate other data when evaluating petitions to augment the complex model and when determining the nature, extent, and limitations of the augmentation. This data may include the existing complex model database, additional vehicle testing programs, and other augmentation applications.

Petitioners are required to include the following information when submitting a test program plan for approval: the fuel parameter to be evaluated for emission effects; the number and description of vehicles to be used in the test, including model year, model name, VIN number, mileage, emission performance, technology type, and vehicle manufacturer; the methods used to procure and prepare the vehicles for testing; the fuels to be used in the testing program, characterized as defined in Section V.I.5; the pollutants and emission categories to be evaluated; the methods and precautions to be used to ensure that the effects of the parameter in question are independent of the effects of other parameters already included in the complex model; a description of the quality assurance procedures to be used during the test program, and the identity and location of the organization performing the testing. EPA anticipates and encourages petitioners to submit the information listed above in stages beginning with the most general and ending with the most specific in order to streamline the approval process and eliminate wasted effort. EPA will work with petitioners to remedy unsatisfactory aspects of their proposed testing program.

These provisions provide the Agency with greater assurance that petitioners would not selectively report test results to the Agency that support their petitions. Petitioners would still be able to "game" the testing process by pre-screening vehicles to obtain a test fleet with the desired sensitivity to the proposed parameter. However, such a test fleet would have to be re-tested as part of the formal test program and hence would be subject to the variability inherent in vehicle testing, which would tend to reduce the gaming benefits from pre-screening. EPA believes that the risks and costs associated with re-testing will tend to dissuade petitioners from attempting to manipulate the testing process in this manner.

EPA further requires that the results of all approved testing programs be submitted to the Agency, even if the parameter in question proves not to provide an emission benefit. The Agency believes this requirement is necessary to ensure that all available data is at the Agency's disposal when evaluating proposed augmentations to the complex model and when updating the model itself. EPA does not intend to use this provision to limit legitimate, innovative test programs. Rather, EPA is only interested in preventing the creation of artificial fuel parameters that claim to be the source of emission effects which are in reality only normal statistical variability.

An example may help clarify the problems that can arise if testing is permitted for such artificial parameters. The level of C10+ aromatics (aromatics whose molecules contain ten or more carbon atoms) influences a fuel's E200, E300, and total aromatics levels. A testing program to identify the effects of C10+ aromatics may indicate that an emission effect from such compounds exists when the effect is actually due to differences in the fuels' E200, E300, and total aromatics levels or to the inherent statistical variability associated with vehicle testing. A petition for approval

of a test program to identify the effects of C10+ aromatics would be required to identify specific measures to be taken to isolate the emission effects of C10+ aromatics from those of E200, E300 and total aromatics, all three of which are included in the complex model. In this example, EPA might require that certain test fuels contain identical levels of E200, E300, and total aromatics; that more rigorous statistical tests be used to identify genuine C10+ aromatics effects beyond those already incorporated in the complex model for E200, E300, and total aromatics; that the fuels used in the test program meet more detailed compositional criteria to ensure their representativeness; or that additional vehicles and/or fuels be tested. This provision helps assure that the effects observed in vehicle testing programs are genuine and will occur in-use.

E. Exclusive Rights to Augmentation

EPA's April 1992 and February 1993 proposals discussed the advantages and disadvantages of providing a system of exclusive rights to model augmentations. EPA has given this matter further consideration, including consideration of comments regarding exclusive rights. The Agency has concluded that the reasons given in its April 1992 proposal for not providing a system of exclusive rights are still valid. Hence the regulations governing augmentation of the complex model through vehicle regulation being promulgated today do not provide for exclusive rights to augmentations. Each augmentation will be available to any refiner desiring to utilize it, and no restrictions are provided under this rulemaking for exclusive rights, other than those granted under other legal code (e.g., patent law). The Agency does not believe adequate authority exists to promulgate exclusive rights provisions under this rulemaking. Furthermore, as discussed in the April 16, 1992 proposal, there are a number of reasons from economic, administrative, and air quality perspectives that make open use of model augmentations a desirable public policy.

To allow interested parties to review and comment on a model augmentation, EPA will publish a description of the augmentation and its supporting data and information for public comment prior to approving an augmentation for use. In keeping with the provision of the Act, EPA will take into account any comments received, and act upon any request received for fuel certification through model augmentation within 180 days of such a request being completed.

F. Duration of Augmentation

In its April 1992 proposal, EPA proposed that augmentations would remain in effect until the next subsequent complex model update was issued. EPA further proposed that if an augmentation had been valid for three or fewer years upon implementation of the subsequent update to the complex model, then refiners were permitted to continue using the augmentation in conjunction with the previous complex model for an additional length of time, subject to certain restrictions. EPA has received a number of comments on this proposal. Today's rule includes a set of limitations on the duration of the augmentation that incorporate some elements of these comments. These limitations are described below.

The Agency is concerned that fuel suppliers not be allowed to claim emission effects in perpetuity based on the testing program described in this section due to the smaller degree of statistical confidence in such effects compared to those included in an updated complex model. The Agency also recognizes the need for fuel suppliers to recoup investments made to reformulate gasoline, including investments to utilize the emission effects identified through vehicle testing. Therefore, petitioners will be permitted to use emission effects determined through vehicle testing only for a limited period of time. In general, this period of time extends until an updated version of the complex model takes effect. Updates to the complex model will be issued by EPA through a formal rulemaking process at such time that the Agency determines that sufficient additional data has become available to warrant issuing such an update. Since some augmentations may be in place for a relatively short period of time before the model is updated, the Agency may not be able to adequately assess the augmentation. However, if a proposed update to the complex model is issued within three years of the time at which the augmentation takes effect, then fuel suppliers may be permitted to continue using the augmentation to determine the emission effects of reformulated gasolines. Specifically, if the Agency does not formally accept, reject, or modify the augmentation in question for inclusion in the updated complex model, then the augmentation will remain available until the next update to the model takes effect. If the Agency reviews the augmentation and either excludes the augmentation entirely or includes the augmentation in a modified form, then the augmentation will remain available for use in its original form, in conjunction with the complex model for which the augmentation was issued, to those fuel producers who can demonstrate to the Administrator's satisfaction that they have begun producing fuels that are certified using the augmentation. In such cases, the augmentation may continue to be used for five years from the date the augmentation took effect or for three years of fuel production, whichever is shorter.

For the reasons discussed above, augmentations to the model for the effects of a given parameter over a particular range are permitted only once. Regardless of whether the emission effects of a parameter are included in an updated model, the augmentation can neither be used nor renewed (even with data from a second identical test program) once the maximum time period for use of a model augmented with the effects of that parameter has expired. Further testing is permitted, however, to provide EPA with the additional data needed to include the effect in a future update to the model.

G. Limits on the Range of an Augmentation

Fuel suppliers will be permitted to claim the emission effects of augmentations only to the extent that the test program measured the effects of the fuel parameter in question over the range in question. If the parameter is included in the complex model, then the augmentation will be valid for fuels containing levels of the parameter between the level tested in the test program and the nearest limit of the complex model (as described in Section IV). If the parameter is not included in the complex model, then the augmentation will be valid for fuels containing levels of the parameter between the candidate and baseline levels (i.e., the levels found in Addition Fuels 1 and 3 in Table V.1). This provision is intended to be consistent with the limits on the application of the simple and complex models as expressed in Sections III and IV.

H. EPA Approval, Confirmatory Testing, and Fees

In the process of reviewing a model augmentation, EPA must confirm the accuracy of the test results. To this end, EPA intends to monitor the petitioner's test program. The Agency also reserves the right to perform confirmatory testing to assure the validity of the test results and the emission performance of the reformulated fuel before allowing augmentation of the model. EPA further reserves the right to collect fees any

lawful of an amount sufficient to recoup all costs associated with such confirmatory testing. EPA anticipates that if any confirmatory testing is performed that it will be of a limited nature and focused only on those aspects of the test program which are unexpected or contrary to prior test programs and engineering knowledge. Since EPA has not proposed methods to be used to calculate and collect such fees, these provisions will be handled through a subsequent rulemaking.

I. Test Requirements

1. Winter Testing

To be certified as reformulated, a gasoline must meet the air toxics and NO_X emission requirements year-round; the oxygen, benzene, and heavy metal content requirements year-round, and the VOC emission requirements in the high ozone season. As discussed in Section IV of this notice and Sections III and IV of the RIA, the Agency does not have sufficient data to model winter exhaust emissions. While differences between the effects of fuel parameters under summer and winter conditions beyond those discussed in Section IV may exist, the Agency does not have any evidence to date to suggest that they are significant. Therefore, EPA will apply the exhaust models developed for summer emissions to winter fuels as well for purposes of determining their air toxics and NO_X emissions. The Agency is concerned that allowing winter testing for some fuel parameters while modeling the effects of other parameters based on summer emission data creates the possibility of "gaming" the testing process. Fuel suppliers could use the summer model to determine the effects of parameters that would behave unfavorably under winter conditions and use winter testing to determine the effects of parameters that would behave favorably under winter conditions. This possibility may result in fuels being certified for winter use (through a combination of winter testing and summer modeling) that result in smaller emission reductions in-use than are intended by the Act or than would occur by using the summer model. Therefore, EPA is at this time requiring that all testing be performed under summer ambient conditions. As the Agency gathers additional data in the future with which to revise the model, EPA will consider whether sufficient winter test data exists to permit the development of winter NO_X and air toxics models. If such models can be developed, the Agency will consider whether to allow winter testing.

2. Pollutants to be Measured

To the extent testing is performed to augment the complex model, it must be performed to determine the emission effects on all the pollutants covered by the reformulated gasoline certification requirements, including toxics (carbon monoxide and carbon dioxide emissions must also be measured to permit validation of test results). Failure to have such a requirement might result in important emission effects being overlooked and could allow fuel producers to "game" the certification requirements by permitting them to utilize the modeling option for one pollutant and the test results for another pollutant when it would be advantageous. The resulting certified reformulated gasolines may not meet all of the applicable emission reduction requirements in-use. For example, the model augmented by test results may indicate that a fuel meets the VOC requirement but fails the toxics requirement, while the model alone may indicate that the fuel meets the toxics requirement but fails the VOC requirement. Allowing the petitioner to claim the toxics emission effects predicted by the model while claiming VOC benefits determined through testing would ignore fuel effects on toxics that may not be addressed by the model.

Testing costs would be significantly reduced if only VOC and NO_X emissions were measured by testing, and toxics emissions were allowed to be modeled. However, since the testing option can only be used when the candidate fuel's parameters fall outside of the range of the model, EPA believes that adequate information seldom would be available to allow toxics emissions from such fuels to be modeled adequately if adequate information on VOC and NO_X emissions were not available. If a fuel parameter is expected to affect VOC or NO_X and is not covered by the model, toxics emissions may very well be affected and should be measured.

It should be noted, however, measurement of toxics emissions for the fuels used to determine interactive effects (discussed below in section IV.I.4.) need not be performed. During development of the complex model, EPA found that interactive effects for air toxics are either statistically insignificant, impossible to discern given the accuracy and extent of available data, or too small to contribute substantially to the model's explanatory and predictive power. The complex model being promulgated today contains no interactive terms for air toxics emissions for these reasons, and hence EPA considers it unnecessary to require testing for interactive effects on air toxics. Specifically, toxics emissions need not be measured when testing additional Extension Fuels to determine interactive effects or when testing Addition Fuels 4, 5, 6, and 7, as described in Section V.I.5. However, EPA reserves the right to require that toxics be measured during vehicle testing programs when evidence exists that adverse interactive effects may exist for toxics. In particular, EPA reserves the right to require testing for interactive toxics effects if future revisions to the complex model include such effects.

To better optimize the test program for the particular fuel parameter being evaluated, the Administrator may approve a request to waive certain pollutant measurement requirements contained in this section. Any such waiver would have to be obtained in advance of vehicle testing. A request for such a waiver must include an adequate justification for the requested change, including the rationale for the request and supporting data and information. Such a request must justify the reason that measurement of certain pollutants clearly is not necessary, and identify those pollutants for which additional testing may be warranted. For example, a petition might note that reducing the concentration of a specific high molecular weight aromatic decreased VOC emissions even though the overall concentration of similar aromatics remained unchanged. The petitioner may be able to justify a reduced need for toxics measurement based on the results of other studies which show that toxics are proportional to total aromatics rather than to individual aromatics species. In exchange, additional testing may be justified for VOC emissions to enable a greater degree of statistical confidence in the test results. As a result, the fuel supplier may be able to present EPA with sufficient justification to warrant increased testing for VOC emissions and decreased testing for toxics emissions.

3. Exhaust and Nonexhaust Testing

VOC and air toxics emissions occur in both exhaust and nonexhaust emissions. However, EPA believes that the relationship between fuel characteristics and nonexhaust emissions is known with greater certainty and precision than the relationship between fuel characteristics and exhaust emissions. Nonexhaust emissions are a much simpler phenomenon to model than exhaust emissions. Nonexhaust emissions are driven primarily by well-understood principles of physical chemistry and are modified by devices such as charcoal canisters that are

relatively easily modeled. Exhaust emissions, by contrast, involve combustion and catalysis reactions that are not as well understood theoretically and are much more difficult to model. In addition, exhaust emissions are estimated directly from the Federal Test Procedure (FTP) utilizing the Urban Dynamometer Driving Schedule, while nonexhaust emissions are estimated from both FTP and non-FTP test cycles in a complex process. Finally, data on nonexhaust emissions is much more extensive and internally consistent than data for exhaust emissions. For these reasons, EPA is restricting testing to augment the model to exhaust emission testing. Vehicle testing of nonexhaust emissions will not be accepted by EPA as the basis for augmentations to the nonexhaust emission model promulgated in today's rulemaking.

EPA reserves the right to revise the nonexhaust emission model in the future to reflect new data acquired by the Agency, with such revisions taking effect after the start of Phase II of the program. In particular, either a new MOBILE model or ongoing research aimed at modeling nonexhaust emissions as a function of true vapor pressure over a range of temperatures may provide the basis for a revised nonexhaust model. The nonexhaust complex model being promulgated today relies on the Reid vapor pressure (RVP) to characterize fuels' nonexhaust emission characteristics. However, RVP is measured at a fixed fuel temperature (100 °F), while nonexhaust emissions occur over a wide range of fuel temperatures (80 °F to 130 °F). Since different oxygenates alter the relationship between RVP and true vapor pressure at a given temperature to different extents, EPA believes that a model based on true vapor pressure would be more accurate for fuels containing oxygenates than a model based solely on RVP.

By permitting nonexhaust emissions from a given fuel to be estimated only from models and exhaust emissions to be estimated based in part on vehicle testing, EPA believes that the accuracy of fuel emission estimates will be enhanced. EPA also believes that this restriction will focus testing resources on those emission effects which the model predicts with the least degree of certainty (i.e., exhaust emissions), thereby improving the degree of certainty of emission predictions over the long run.

4. Eligibility of Fuel Properties for Testing

In providing for augmentation of the complex model through vehicle testing, EPA's intent is to provide refiners with the ability to take advantage of new or ongoing research into the relationship between fuel properties and exhaust emissions. As discussed elsewhere in this section, however, the Agency believes that the complex model is more accurate and reliable than any single test program for the parameters included in the model.

Therefore, augmentation by testing will be permitted only for certain fuel parameters and for certain levels of those parameters. Augmentations will not be permitted for fuel parameters that are included and quantified in the complex model database, regardless of whether they appear in the complex model itself. Such parameters were either not identified or identified and later rejected during the rulemaking process, which included a series of regulatory negotiation meetings, public workshops, and public meetings. EPA believes that the opportunities for error far exceed the potential emission benefits from allowing model augmentations using parameters that did not survive the peer review process.

Augmentation through vehicle testing will be permitted to extend the valid range of the complex model for parameters already included in the model. The purpose of such testing would be to determine the behavior of the parameter within this extended range. Augmentations also will be permitted for parameters that neither have been included in today's complex model nor were measured for the fuels contained in the complex model database. The purpose of testing in this case would be to determine the behavior of new parameters, including any dilution and interactive effects. The test requirements differ for these two cases to reflect differences in existing knowledge and environmental risk.

5. Test Fuels

The Agency has three major goals that must be satisfied before accepting an augmentation to the complex model. First, the augmentation must provide proper credit for fuel modifications. Second, the augmentation must account for dilution effects properly. Third, the augmentation must account for interactive effects between the parameter being tested and other fuel parameters properly. EPA believes that these three goals cannot be met without specifying at least some of the characteristics of fuels to be included in a test program. The remainder of this section describes the basic characteristics of the fuels required as part of a vehicle test program.

a. *Fuels required to extend the range of existing complex model parameters.* Three "extension fuels" must be included in test programs intended to extend the range of the complex model for a given parameter to a more extreme level. Extension fuel #1 would contain the more extreme level of the parameter being extended in order to determine the parameter's effects on emissions at this more extreme level. Extension fuel #2 would contain the parameter being extended at levels at or near its current lower limit in the model. Extension fuel #3 would contain the parameter being extended at levels at or near its current upper limit in the model. These latter two fuels are necessary in order to estimate the size and significance of squared terms involving the parameter being extended. For all three fuels, the levels of other complex model parameters are to be set at the levels specified in Table V.2, which the Agency believes are representative of levels that will be found in typical reformulated fuels. In addition, all three fuels must be blended from representative refinery streams to the extent practicable. The three extension fuels must meet the requirements presented in Tables V.1 and V.2 to within the blending tolerances specified in Table V.4.

If the Complex Model contains interactive effects between the parameter in question and other parameters, two additional fuels must be tested to quantify the magnitude of any such effect at extended levels of the parameter in question. For each interacting parameter, the two additional fuels would contain the parameter being tested at levels identical to that found in Extension Fuel #1. The interacting parameter would be present at the levels specified in Table V.1 for Extension Fuels 2 and 3, respectively, in the two additional fuels in order to quantify the size of the interactive effect over its full range. Other parameters would be set at the levels specified in Table V.2. It should be noted that since today's complex model includes only one interactive term (involving aromatics and E300), this situation would arise relatively infrequently.

TABLE V.1.—LEVEL OF EXISTING COMPLEX MODEL PARAMETERS BEING EXTENDED

Fuel property being extended	Extension fuel #	Extension fuel #2	Extension fuel #3
Sulfur, ppm.	Extension Level.	80	450
Benzene, vol%.	Extension Level.	0.5	1.5
RVP, psi .	Extension Level.	6.7	8.0
E200, % .	Extension Level.	38	61
E300, % .	Extension Level.	78	92
Aromatics, vol%.	Extension Level.	20	45
Olefins, vol%.	Extension Level.	3.0	18
Oxygen, wt%.	Extension Level.	1.7	2.7
Octane, R+M/2.	87.5	87.5	87.5

TABLE V.2.—LEVELS FOR FUEL PARAMETERS OTHER THAN THOSE BEING EXTENDED

Fuel property	Extension fuel #1	Extension fuel #2	Extension fuel #3
Sulfur, ppm	150	150	150
Benzene, vol%	1.0	1.0	1.0
RVP, psi	7.5	7.5	7.5
E200, %	50	50	50
E300, %	85	85	85
Aromatics, vol%	25	25	25
Olefins, vol%	9.0	9.0	9.0
Oxygen, wt%	2.0	2.0	2.0
Octane, R+M/2	87.5	87.5	87.5

b. *Fuels required to qualify new complex model fuel parameters.* Seven "addition fuels" must be included in test programs intended to augment the complex model with fuel parameters not included in the model. These fuels are intended to provide the data necessary to estimate linear, squared, and interactive emission effects for the parameter being tested. The fuel parameter values for all seven addition fuels are specified in Table V.3; these values must be met to within the blending tolerance ranges specified in Table V.4.

TABLE V.3.—PROPERTIES OF FUELS TO BE TESTED WHEN AUGMENTING THE MODEL WITH A NEW FUEL PARAMETER

Fuel property	Fuels						
	1	2	3	4	5	6	7
Sulfur, ppm	150	150	150	35	35	500	500
Benzene, vol%	1.0	1.0	1.0	0.5	0.5	1.3	1.3
RVP, psi	7.5	7.5	7.5	6.5	6.5	8.1	8.1
E200, %	50	50	50	62	62	37	37
E300, %	85	85	85	92	92	79	79
Aromatics, vol%	27	27	27	20	20	45	45
Olefins, vol%	9.0	9.0	9.0	2.0	2.0	18	18
Oxygen, wt%	2.1	2.1	2.1	2.7	2.7	1.5	1.5
Octane, (R+M)/2	87	87	87	87	87	87	87
New Parameter[1]	C	C+B	B	C	B	C	B
		2					

[1] C=Candidate level, B=Baseline level.

In Table V.3, Fuel 1 is the candidate fuel, Fuel 3 is the candidate-baseline fuel, and Fuel 2 is a dilution fuel that is tested to determine whether emissions respond linearly to levels of the candidate fuel parameter. Testing on addition fuels 1, 2, and 3 will provide the data needed to assess the emission effects of the parameter being tested in isolation. Three separate levels of the parameter are specified in order to provide data to estimate both linear and squared terms involving the parameter, while other fuel parameters have been set at levels expected to be typical of in-use reformulated gasolines. Fuels 4 and 5 are low-emitting fuels with candidate and baseline levels of the parameter in question. Fuels 6 and 7 are the corresponding high-emitting fuels. Testing on these four fuels will provide the data needed to assess the existence and size of interactive effects between the parameter being tested and other fuel parameters already included in the complex model. Estimating these effects for very high emitting fuels (addition fuels 6 and 7) and very low emitting fuels (addition fuels 4 and 5) maximizes the sensitivity of the test program to such effects.

If the parameter being tested is not specified for CAA baseline gasoline, its baseline level must be comparable to its level in gasoline representative of commercial reformulated gasolines. Petitioners are required to obtain approval for the baseline level of this parameter from the Agency prior to beginning their vehicle test programs. Such approval would depend in part on the use of an appropriate basis for determining the properties of "representative" commercial reformulated gasolines. The basis for this specification and for the specifications described in Table V.3 are discussed more fully in section IV.G of the RIA.

c. *Other fuels requirements.* To produce fuels with the parameter values listed above for the extension and addition fuels, the amount and type of paraffins present in each fuel may require adjustments. These adjustments must reflect the distribution of paraffin types in representative refinery streams. Two other issues must also be addressed regarding the composition and properties of extension and addition fuels. First, non-compositional fuel properties such as RVP, E200, and E300 may differ from the values specified in Tables V.2 and V.3 as a natural result of compositional differences among fuels or as a result of the inherent variability in blending processes. In such cases, the complex model is to be used to compensate for such differences when

evaluating vehicle testing results, as described in section 80.48 of today's regulations.

Second, EPA also is concerned that variations due to blending may cause fuel parameters not included in the model to vary among fuels, and such parameters may have significant emission effects not predicted by the model. To minimize this risk, the properties of the various fuels must match those specified in Tables V.1 through V.3 to within the tolerances defined in Table V.4. In addition, the extension and addition fuels must be blended from identical refinery streams to the extent possible. Failure to meet this requirement would reduce the certainty that emission effects found in vehicle testing are due solely to the parameter being tested. However, if a petitioner can show that it is not feasible to meet all such tolerances for the petitioner's fuels due either to: (1) Naturally-resulting changes in fuel parameters arising from changes in the parameter(s) in question or (2) blending technology limitations, EPA will consider modifying the relevant tolerances. Any such request must come prior to the start of the test program. In such cases, EPA reserves the right to use the model and relevant data from prior augmentation petitions to adjust for whatever differences remain among the fuels.

TABLE V.4.—FUEL PARAMETER BLENDING TOLERANCES

Fuel parameter	Blending tolerance
Sulfur content	±25 ppm.
Benzene content	±0.2 vol %.
RVP	±0.2 psi.
E200 level	±2 %.
E300 level	±4 %.
Oxygenate content	±1.0 vol %.
Aromatics content	±2.7 vol %.
Olefins content	±2.5 vol %.
Saturates content	±2.0 vol %.
Octane	±0.5.
Candidate parameter	To be determined as part of the augmentation process.

An octane requirement of 87.5 (measured by the (R+M)/2 method) must be met for all fuels used in vehicle testing to within the tolerance specified in Table V.4, unless octane itself is the fuel property being evaluated for its effect on emissions. All test fuels must also contain detergent additives in concentrations adequate to meet the requirements of section 211(l) of the Act, and the concentration must be within ten percent of the average detergent concentration for all fuels included in the test program.

6. Test Procedures

For the reformulated gasoline program to achieve actual in-use reductions in fuel-related VOC and toxics emissions, certification test results must correlate with reductions in in-use emissions. No test procedure, however, is completely representative of all in-use conditions. The range of vehicle uses and operating conditions and the range of geographical and climatic conditions throughout the country prevent a single test procedure from being entirely representative. However, EPA has developed or is in the process of developing test procedures which attempt to reflect a broad spectrum of in-use vehicle operating conditions. These test procedures were used in part to develop the emission factors in EPA's MOBILE4.1, MOBILE5, and MOBILE5A emission models, which in turn have been used to develop the modeling option for fuel certification. To maintain consistency between the certification methods, these test procedures also are to be used for vehicle testing to augment the model.

a. *Exhaust emission testing.* Exhaust emissions must be measured through the use of the Federal Test Procedure (FTP) for new vehicle certification (Subpart B of Part 86 of the Code of Federal Regulations) with modifications to allow vehicle preconditioning between tests on different fuels and to provide for benzene, formaldehyde, acetaldehyde, and 1,3-butadiene sampling and analysis. Since POM (the fifth regulated toxic air pollutant) cannot currently be measured accurately and since no single measurement procedure is generally accepted, its measurement is not required. A detailed description of the toxics measurement procedures can be found in section 80.55 and section 80.56 of the regulations for this rulemaking.

b. *Fuel parameter measurement precision.* One source of error in testing programs as described in this section is uncertainty in the composition and properties of the fuels being tested. Since fuel testing is far less expensive than vehicle emission testing, EPA believes it is highly cost effective to measure the properties of the fuels multiple times to reduce the uncertainty in projected emissions due to uncertainty in fuel composition. As a result, at minimum, the properties defined in Table V.5 must be measured a sufficient number of times to reduce the 95 percent confidence interval, as calculated using a standard t-test, to the tolerances defined in Table V.5.

TABLE V.5.—FUEL PARAMETER MEASUREMENT TOLERANCES FOR FUEL CERTIFICATION BY VEHICLE TESTING

Parameter	Measurement tolerance (95 percent confidence interval)
API Gravity	±0.2 °API.
Sulfur content	±5 ppm.
Benzene content	±0.05 vol %.
RVP	±0.08 psi.
Octane	±0.1 (R+M/2).
E200 level	±2 %.
E300 level	±2 %.
Oxygenate content	±0.2 vol %.
Aromatics content	±0.5 vol %.
Olefins content	±0.3 vol %.
Saturates content	±1.0 vol %.
Octane	±0.2.
Candidate parameter	To be determined as part of the augmentation process.

EPA recognizes that fuels used in vehicle testing may differ significantly in composition in terms of specific chemical species while appearing to be identically composed in terms of broad chemical families. The Agency further recognizes that such compositional differences may result in emission effects, and that such differences may confound or be used to "game" testing programs. Therefore, the fuels used in vehicle testing must be blended from representative refinery streams, and their composition must be fully characterized by gas chromatography or equivalent analysis methods (following the methodology used in the Auto/Oil study [3]) and the results submitted to EPA. Petitioners would have the option of either submitting these results for approval prior to beginning vehicle testing or including these results in their completed petition. However, in either case, EPA would retain the authority to require modifications to the test fuels to ensure that their compositions are appropriate. Hence petitioners electing not to obtain prior approval of their fuel compositions would assume the risk that EPA may require modifications to the petitioner's test fuels upon receipt of the completed petition, thereby invalidating any testing the petitioner may have completed.

EPA received a number of comments on its fuel specification and measurement precision proposals. Many of these comments have been

[3] Auto/Oil Air Quality Improvement Research Program, Technical Bulletin #1, December 1990.

incorporated in today's testing regulations, notably removal of the end point specification and inclusion of detergents and octane specifications. A detailed discussion of comments can be found in Section VI.G of the RIA.

c. *Other test fuel provisions.* To maximize the accuracy and confidence in the results from a test program of the magnitude specified in this section, it is good practice to ensure that systematic changes in the emission characteristics of the test vehicles do not occur during testing. Such effects can overwhelm the fuel effects being measured. Therefore, the first fuel tested in any given vehicle must be retested in that vehicle at the end of the test program. In addition, the order in which fuels are tested on each vehicle must be randomized to prevent carryover effects from biasing test results.

In response to comments, EPA has decided to remove the requirement for repeat measurements of VOC and NO_X emissions from each fuel. EPA considers the measures described above to provide adequate quality assurance without repeat measurements and recognizes that removal of the repeat testing requirements will make vehicle testing significantly less onerous and time-consuming.

7. Vehicle Selection

a. *1990 Equivalency.* Section 211(k)(3) of the CAA specifies that the required reductions in VOC and toxics emissions are to be measured from the emissions of those pollutants from "baseline vehicles." Section 211(k)(10)(A) defines baseline vehicles as representative model year 1990 (MY–90) vehicles. However, in order to simplify test vehicle selection and remain consistent with the practices used to develop the complex model, other model year vehicles may be included in the test program. Specifically, 1986 through 1989 model year vehicles may be tested if the 1990 version had an engine and exhaust system that was not different from the earlier model year versions in ways that could affect the emission performance of the vehicles (i.e., if the model's EPA emission certification data were "carried over" through the 1990 model year[4]). EPA retains the right to reject any non-1990 model year vehicle that the manufacturer deems to be different in terms of emission control technology or engine design from 1990 vehicles made by that manufacturer. The test fleet must be composed only of light-duty vehicles and light-duty trucks, in keeping with the practices followed in developing the complex model.

b. *Vehicle selection criteria.* Another consideration in vehicle selection is the condition of the test vehicles. EPA believes that Congress intended that the required VOC and toxics emission reductions be achieved not only at certification but also in-use. In order for this to be true, the test vehicles' condition should be representative of that of in-use vehicles. Therefore, for the purposes of the reformulated gasoline program, representative vehicles must have emission performances typical of the in-use emission performance of 1990 vehicles over their lifetime, a technology mix similar to that of the 1990 model year fleet, and a minimum of 4,000 miles of service to assure break-in of engine and emission control system components. In addition, the test fleet must contain vehicles with a distribution of VOC emissions similar to that of in-use vehicles. Emissions of other pollutants tend to respond in a similar manner (e.g., carbon monoxide and air toxics) or in an essentially uncorrelated manner (e.g., NO_X).

In order for the emissions effects measured during vehicle testing to reflect the emission effects that will be experienced by actual in-use vehicles, EPA considers it necessary to control the composition of the test fleet. As discussed in Section IV, EPA's complex model has identified significant differences in the effects of fuel modifications on emissions among vehicles from different emitter classes and technology groups. EPA's vehicle fleet requirements are intended to assure that a sufficient number of vehicles are tested to provide statistical confidence in observed emission effects, to assure that the vehicles tested are representative of the emission characteristics of in-use vehicles, and to assure that the vehicles tested have emission control technologies that are representative of emission control technologies found on 1990 model year vehicles.

(1) *Higher Emitters/Normal Emitters.* In order that the test fleet for exhaust emission testing reflect the distribution in vehicle emission performance in-use, the test fleet must consist of two exhaust VOC emitter subfleets, normal emitters and higher emitters. The proportion of vehicles in each subfleet is to be set equal to the distribution of vehicle emission performance when enhanced I/M programs are in place. These proportions are shown in Table V.6, which is based on an EPA analysis[5] of the distribution of the in-use emission performance of a hypothetical fleet composed entirely of 1990 model year vehicles when subject to an enhanced I/M program. This distribution is consistent with the assumptions made in developing the Phase II Complex Model.

TABLE V.6.—EMITTER GROUPS AND IN-USE EMISSIONS

Emitter group	Fraction of in-use fleet	Emission fraction	
		VOCs	NO_X
Normal: <2 x THC Standard (<0.82 g/mi)	0.738	0.444	0.738
Higher: ≥2 x THC Standard (≥0.82 g/mi)	0.262	0.556	0.262

An option had been proposed for comment which would not have separated the test fleet into separate emitter groups under the assumption that they may not respond differently to fuels. However, EPA's analysis of the complex model database and the complex model itself indicates that this assumption is invalid. Hence EPA has determined that the test fleet must contain vehicles from both emitter groups.

Assembling a test fleet with the specified emission performance distribution requires vehicles to be obtained with the desired emission performance. For the reformulated gasoline program, such vehicles must be obtained by randomly selecting vehicles with the desired emission performance from the in-use fleet and testing those vehicles in their as-received condition. This method helps assure that the vehicles selected for testing have emission control problems that are representative of in-use emission problems. EPA had considered allowing normal emitting vehicles with intentionally-disabled emission control systems to serve as higher emitting vehicles, but no suitable disablement scheme has been identified and evidence indicating that disabled vehicles would have emission performance representative of in-use higher emitters has not been found. For these reasons, EPA will not permit

[4] For a more complete explanation of this issue, please see "1990 Baseline Vehicles," memorandum from David Korotney to EPA Air Docket A–92–12, November 30, 1993.

[5] "Exhaust VOC Emission Inventory By Vehicle Emitter Class Following Implementation of an Enhanced Inspection and Maintenance (I/M) Program", Memorandum from Christian Lindhjem and David Brzezinski to EPA Air Docket A–92–12, June 24, 1993.

higher emitting vehicles to be created by intentionally disabling normal emitting vehicles.

Test vehicles' emission performance will need to be pre-screened to place them in the appropriate emitter group and to assure the proper emissions distribution within the test fleet. Such prescreening tests must be conducted using EPA vehicle certification fuel (Indolene) over the Federal Test Procedure since these were the conditions which were used to generate the data for the in-use emission distribution. Prescreening tests can also be performed using the Clean Air Act baseline gasoline and/or the I/M 240 test procedure. Results from such tests can be correlated with FTP test results with Indolene (as outlined in section 80.62 of the accompanying regulations).

(2) *Technology Groups.* As discussed in Section IV, the development of the complex model revealed that the emissions effect of fuel modifications in normal emitting vehicles varied among the engine and exhaust system technologies present in 1990 model year vehicles. Hence EPA has concluded that the normal emitter test fleet must have a technology distribution that is representative of the technology distribution present in the 1990 model year fleet. The required distribution is shown in Table V.7.

In addition to the technology group criteria of Table V.7, approximately 30 percent of the vehicles selected for each emitter class sub-fleet must be light-duty trucks (LDTs) to reflect the representation of LDTs in the light-duty vehicle fleet. EPA believes that the benefits of providing flexibility in determining the selection of LDTs for the test fleet outweigh the benefits of accuracy achieved by specifying which vehicles from Table V.7 should be LDTs. However, as is also the case for other design elements of the test program, the distribution of LDTs among the normal emitter technology groups is subject to EPA approval.

A number of commenters objected to the application of this technology group distribution to the higher emitting vehicle subfleet, as was specified in prior proposals. EPA's experience in developing the complex model, as discussed in Section IV and the RIA, confirms that higher emitter emissions tend to be much less dependent on vehicle technology differences than are normal emitter emissions. Therefore, the higher emitting vehicle subfleet need not meet the technology distribution requirement, though a mixture of vehicle models and manufacturers should still be included. The higher emitter subfleet also must meet the 1990 model year and light duty vehicle criteria described previously and, like other elements of proposed testing programs, is subject to EPA approval.

TABLE V.7.—TEST VEHICLE CHARACTERISTICS

Veh. #	Fuel system	Catalyst	Air injection	EGR	Tech. group	Manufacturer
1	Multi	3W	No Air	EGR	1	GM.
2	Multi	3W	No Air	No EGR	2	Ford.
3	TBI	3W	No Air	EGR	3	GM.
4	Multi	3W+OX	Air	EGR	4	Ford.
5	Multi	3W	No Air	EGR	1	Honda.
6	Multi	3W	No Air	No EGR	2	GM.
7	TBI	3W	No Air	EGR	3	Chrysler.
8	Multi	3W+OX	Air	EGR	4	GM.
9	TBI	3W+OX	Air	EGR	7	Chrysler.
10	Multi	3W	Air	EGR	5	Toyota.
11	Multi	3W	No Air	EGR	1	Ford.
12	Multi	3W	No Air	No EGR	2	Chrysler.
13	Carb	3W+OX	Air	EGR	9	Toyota.
14	TBI	3W	No Air	EGR	3	Ford.
15	Multi	3W+OX	Air	EGR	4	GM.
16	Multi	3W	No Air	EGR	1	Toyota.
17	Multi	3W	No Air	No EGR	2	Mazda.
18	TBI	3W	No Air	EGR	3	GM.
19	Multi	3W+OX	Air	EGR	4	Ford.
20	Multi	3W	No Air	EGR	1	Nissan.

TABLE V.8—TECHNOLOGY GROUP DEFINITIONS

Tech. group	Fuel system	Catalyst	Air injection	EGR
1	Multi	3W	No Air	EGR
2	Multi	3W	No Air	No EGR
3	TBI	3W	No Air	EGR
4	Multi	3W+OX	Air	EGR
5	Multi	3W	Air	EGR
6	TBI	3W	Air	EGR
7	TBI	3W+OX	Air	EGR
8	TBI	3W	No Air	No EGR
9	Carb	3W+OX	Air	EGR

Legend for Tables V.7 and V.8

Fuel System:
Multi = Multi-point fuel injection
TBI = Throttle body fuel injection
Carb = Carburetted
Catalyst:
3W = 3-Way catalyst
3W+OX = 3-Way catalyst plus an oxidation catalyst
Air Injection:
Air = Air injection

No Air = No air injection
EGR:
EGR = Exhaust gas recirculation
No EGR = No exhaust gas recirculation

Vehicles must be added to the normal emitter sub-fleet in the order in which they appear in the table. If more than 20 vehicles are included in the normal emitter sub-fleet, then the additional vehicles must be selected starting over with vehicle number one in Table V.7.

(3) *Number of Test Vehicles.* Exhaust emissions are subject to considerable variability due to the complexity of combustion chemistry, engine behavior, and emission control. As a result, substantial statistical uncertainty typically exists in exhaust emission reduction estimates based on a single test program. To reduce this uncertainty, an adequate number of vehicles must be tested for their exhaust emissions. In order to keep statistical uncertainty reasonably low while at the same time limit the test fleet size to reasonable levels, the test fleet for exhaust emissions must consist of a minimum of 20 vehicles. To maintain adequate statistical confidence in test results, however, the distribution of the test fleet among the emitter groups must also be defined so as to minimize statistical uncertainty. As discussed in the April 16, 1992 proposal, differences in VOC, NO_X and toxics emission distributions for in-use vehicles prevents optimization of the size of the emitter groups for all three pollutants simultaneously. EPA is basing the number of vehicles in each emitter group on their VOC emission performance, based on the reasons discussed in the April 16, 1992 proposal and on the use of VOC emission performance to define emitter groups.

The uncertainty associated with VOC emissions is quite complex. The higher emitting vehicles in various test programs have tended to have significantly greater variability in emission effects than normal emitting vehicles. Hence to minimize statistical uncertainty, a greater proportion of higher emitters should be tested than would be suggested by their contribution to in-use emissions. However, EPA believes that pre-screening and stabilization of higher emitters can reduce their variability to approach that of normal emitters. Therefore, to minimize the statistical uncertainty in the test program the number of normal and higher emitters in the test fleet should represent the contribution of each sub-fleet to total in-use emissions. Since the relative contribution of normal and higher emitters to total VOC emissions is approximately equal (as discussed at length in the RIA), equal numbers of normal and higher emitters must be contained in any test fleet.

(4) *Waiver Provisions for Different Test Program Requirements.* A number of options were discussed in April 16, 1992 which attempted to simplify or minimize the vehicle test fleet requirements while still maintaining the statistical confidence in the results of any test program. Based upon EPA's experience with the programs conducted as part of the complex model development, the test fleet provisions promulgated here represent the minimum possible if adequate statistical confidence in test program results is to be maintained. In fact, EPA believes that many petitioners may desire to test additional vehicles in order to improve their study's statistical power and thereby improve the likelihood that an augmentation petition would be granted.

Nevertheless, in some instances petitioners may believe that a more optimal test fleet composition than the one specified above exists for the fuel parameter being tested. In such cases, petitioners can petition the Administrator to approve a waiver from certain of the requirements in this section relating to the number of test vehicles and their distribution among the normal and higher emitter groups. Any such waiver would have to be obtained in advance of the start of the test program involved. A request for such a waiver must include an adequate justification for the requested change, including the rationale for the request and supporting data and information. EPA reserves the right to require testing of additional vehicles beyond the 20-vehicle minimum where such testing is necessary to evaluate emission effects properly.

8. Data Analysis

a. *Weighting of emission test data.* The manner in which the test data is to be analyzed must be consistent with the goal that the emission benefits from reformulated gasoline be realized in-use, just as is the case for the exhaust emission complex model itself (as discussed in Section IV). Therefore, augmentation of the models with vehicle testing results must reflect the effects of fuel modifications on emissions of each exhaust pollutant (VOC, NO_X, benzene, 1,3-butadiene, formaldehyde, and acetaldehyde) on 1990 vehicles. The augmentation also must incorporate differences in these effects for vehicles with different emission control technologies and different emission levels. The vehicle selection criteria discussed above are intended to satisfy these requirements without requiring an extremely large test fleet. The results of vehicle test programs will be weighted to reflect the contribution of each emitter class and technology type to in-use emissions according to the procedure described in Section IV for the exhaust emission complex model.

b. *Data analysis to extend the range of existing model parameters.* When extending the range of a fuel parameter already included in the complex model, EPA believes that the data generated through vehicle testing should be combined with the data used to develop the complex model itself. This approach offers several important advantages. First, it takes full advantage of existing knowledge regarding the effects of the parameter in question on emissions. Second, it reduces inconsistencies between the complex model and the augmentation, thereby simplifying certification and enforcement. Third, it reduces the possibility of petitioners deliberately manipulating the test program to obtain a desired augmentation since the limited data generated by the test program will be combined with the much more extensive data available in the complex model database.

The analysis process is described in detail in section 80.48 of today's regulations and in Section IV.G of the RIA. The process requires that the emission effects of the parameter being tested be verified at the extended level while not permitting emission effects of other parameters to be modified from the effects incorporated in the complex model. In addition, the augmentation would only apply to fuels with levels of the parameter being tested that fall outside the range for which the complex model is valid. These safeguards are intended to prevent the results of vehicle testing from being used to alter aspects of the complex model that a fuel supplier or other organization deems undesirable.

c. *Data analysis to add new fuel parameters.* Vehicle test data for new fuel parameters such as new additives cannot be analyzed in the manner described above for existing fuel parameters. Vehicle-to-vehicle variability can cause significant differences in vehicle responses to parameters already included in the complex model from what the complex model would predict. The analysis method described above would apply these differences entirely to the new parameter, which would allow substantial opportunities to game the testing and model augmentation process. To minimize the risk of gaming

and assure proper representation of the effects of new fuel parameters, a different analysis process must be used when augmenting the model with a new fuel parameter. This process is designed to identify the effects of the new parameter itself, including its behavior upon dilution, as well as any interactive effects between the parameter and existing complex model parameters.

The process itself is described in detail in section 80.48 in today's regulations and in Section IV of the RIA. The modeling process incorporates five techniques to minimize gaming and isolate the actual emission effects of the new parameter being tested. First, the complex model is used to adjust the emissions performance of the test vehicles on the three fuels for any differences in fuel parameters other than the one being tested. These adjustments should be minor, since fuel properties other than the one being tested are required to be nearly identical. Second, the linear and squared terms for the new parameter are determined based on test data from addition fuels 1, 2, and 3 before interactive effects are introduced into the augmented complex model based on the results of testing addition fuels 4, 5, 6, and 7. This approach is used because the direct effects of fuel parameters (represented by the linear and squared terms) are less easily gamed or obscured than are interactive effects since fewer variables are involved. Third, the statistical criteria defined in section 80.57 are used to assure that only statistically significant terms are included in the augmentation.

Fourth, the model must include all terms for the pollutant being modeled that are already included in the complex model. In addition, only the linear, squared, and interactive terms involving the new parameter are permitted to enter the augmentation. The coefficients for the complex model terms will be fixed at the values established in this rule. By not permitting the augmentation to change existing complex model terms, the analysis process reduces opportunities to game to modify complex model effects that the testing organization considers undesirable.

Fifth, augmentations are not permitted for parameters not contained in the complex model but for which measurements exist in the complex model database. Including such parameters in an augmented complex model is likely to result in large changes in complex model coefficients due to the interrelationship between fuel properties. Such changes would complicate enforcement and might introduce fungibility problems that would diminish the in-use effectiveness of reformulated fuels. Further, EPA's experience in developing the complex model suggests that including such parameters would introduce collinearity problems and exacerbate the risk of test program gaming. Since such parameters were considered for inclusion in the complex model but were rejected based on input from affected parties and EPA staff, EPA has decided not to permit augmentations for such parameters. However, the Agency will consider including such parameters in subsequent revisions to the complex model.

Interactive terms were not permitted to enter EPA's complex models for exhaust toxics, as discussed in Section IV and the RIA. Hence interactive effects on toxics emissions are not permitted in augmentation petitions, unless the test program was intended and specificially designed to investigate such effects.

The preceding discussion assumes that the interactive effects identified through testing cannot be traced to a specific cause. If the cause of the interactive effect can be identified, it may be appropriate to determine a greater beneficial augmentation due to the parameter in question than the effects identified through the procedure above or to include an interactive term in the complex model. Therefore, EPA will allow testing of additional fuels to identify the cause of the interactive effect and the magnitude of the effect for representative in-use fuels (again subject to Agency approval regarding the appropriateness of the petitioner's definition of representative gasoline). Petitioners will be required to obtain approval from the Administrator for the proposed additional testing before beginning such testing. Petitioners will be permitted to claim larger benefits for the parameter in question based on the results of such tests, subject to the approval of the Administrator.

For a more complete description of these procedures, the reader is referred to section 80.57 of the regulations and to Section IV of the RIA.

d. *Acceptance criteria.* As discussed in Section H, EPA reserves the right to evaluate the quality of testing data submitted in support of petitions to augment the models, to reject test data or analyses submitted to the Agency if such data or analyses are found to be insufficient, flawed, or otherwise deficient, and to include test data or analyses from other sources when evaluating the proposed augmentation to the model.

VI. Phase II (Post-1999) Reformulated Gasoline Performance Standards and NO_x Standards for Reformulated Gasoline

A. Introduction

The Clean Air Act (the Act), as amended in November 1990, establishes a more stringent minimum level of control of ozone-forming VOCs and air toxics emissions from reformulated gasoline beginning in the year 2000 than is required prior to that date. For the first five years of the reformulated gasoline program (Phase I; January 1, 1995 through December 1999), Congress established a minimum requirement of 15% reduction of ozone forming VOCs and toxic air pollutants [CA section 211(k)(3)(B)].[6] Starting with January 1, 2000 (Phase II), the 15% minimum required reductions are increased to 25%, with the provision that EPA may increase or decrease this level based on technological feasibility, considering cost, but may not decrease it below 20% [CA section 211(k)(3)(B)]. The restriction on increases in NO_x emissions continues to apply during Phase II of the program.

The regulatory negotiation conducted by EPA for this rulemaking did not address the Phase II VOC and toxics standards, nor did it address a reduction in NO_x emissions beyond the statutory cap imposed under section 211(k)(2)(A). After analyzing the costs and benefits of various controls, along with other relevant factors, EPA proposed a range of possible Phase II standards for VOC and toxics. Furthermore, based on EPA's view that NO_x reductions were important to achieve attainment of the ozone NAAQS in many nonattainment areas, EPA also proposed a NO_x reduction performance standard for Phase II reformulated gasoline relying on EPA's authority under section 211(c)(1)(A). A more detailed discussion of EPA's Phase II proposals for VOCs, toxics, and NO_x is provided in subsection 2 below.

For the reasons described below, EPA has decided to establish per gallon Phase II VOC performance standards of 25.9% for VOC control region 2 (northern areas) and 27.5% for VOC control Region 1 (southern areas).[7] EPA is also promulgating a per gallon toxics performance standard of 20% for all

[6] The numerical performance standard of § 211(k)(3)(B) sets the minimum level of reductions, as it is more stringent than the reductions achieved by the formula fuel in § 211(k)(3)(A).

[7] The 27.9% VOC performance standard for VOC control region 1 is measured against the statutory baseline gasoline, which has an RVP of 8.7 psi. This amounts to a 17.7% VOC reduction when measured against a baseline gasoline with RVP of 7.8 psi.

reformulated gasoline. Reformulated gasoline will also have to meet a 5.5% per gallon reduction in emissions of NO_X. EPA has also established more stringent VOC, toxics, and NO_X performance standards where a refiner or importer complies on average, as well as minimum per gallon standards, as explained in section C below.

1. Statutory Requirements

Section 211(k)(1) requires that reformulated gasoline achieve the greatest reductions possible in volatile organic compounds (VOCs) and toxics emissions, "taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements. Specifically, section 211(k)(3)(B) of the Act requires that, in the year 2000 and beyond, "aggregate emissions of ozone-forming volatile organic compounds from baseline vehicles[8] when using reformulated gasoline shall be 25 percent below the aggregate emissions of ozone forming volatile organic compounds from such vehicles when using baseline gasoline[9]." Similarly, a 25% reduction in emissions of toxic air pollutants is required. The Act also specifies that the Administrator may adjust the 25 percent reduction level to provide for lesser or greater reductions based on technological feasibility, giving consideration to the cost of achieving such reductions. In no case can the required reduction be less than 20 percent. The Act further provides that emissions of oxides of nitrogen (NO_X) cannot increase as a result of the use of reformulated gasoline. These VOC and toxics reductions and NO_X limit are known as the Phase II reformulated gasoline standards.

Section 211(c) of the Act allows the Administrator to regulate fuels or fuel additives if "any emission product of such fuel or fuel additives causes, or contributes to, air pollution which may reasonably be anticipated to endanger the public health or welfare." Section 211(c)(2) further provides that EPA cannot control these fuels and fuel additives "except after consideration of all relevant medical and scientific evidence available * * *, including consideration of other technologically or economically feasible means of achieving emissions standards." In addition, EPA must find that the prohibition "will not cause the use of any other fuel or fuel additive which will produce emissions which will endanger the public health or welfare to the same or greater degree than the use of the [regulated fuel/fuel additive]."

EPA has elected to use this authority to require reformulated fuels to also achieve NO_X reductions in order to reduce ozone formation, based on scientific evidence regarding the benefits of NO_X control and on the cost-effectiveness of NO_X reductions. The determination of the need for, scientific justification of, and cost-effectiveness of NO_X control is presented in the RIA and summarized in subsection C.2 below.

2. Proposal

EPA proposed a range of VOC and toxics performance standards for Phase II reformulated gasoline, covering a variety of options for setting these standards [see the Notice of Correction for the Proposed Rule 58 FR 17175 (April 1, 1993)]. The proposed VOC standards ranged between 29.7 and 37.7 percent reduction in emissions for VOC control region 1 areas (Class A and B, the southern areas of the country) based on a baseline fuel with an RVP of 8.7 psi[10], and between 26.7 and 34.7 percent reduction for VOC control region 2 areas (Class C, the northern areas of the country) [58 FR 17178, 17179, 17180 (April 1, 1993)]. These percentage reductions are in comparison to the emissions performance of baseline vehicles operating on baseline gasoline; the proposed version of the complex model was used to establish a fuel's emissions performance. In proposing the range of values EPA considered the costs of VOC control, the cost-effectiveness of the controls, the health and environmental effects, energy impacts, and technological feasibility.

EPA's analysis showed that fuels meeting the proposed VOC and toxics standards were expected to show no increase in NO_X emissions, and in fact would likely achieve some reduction in NO_X. Based on the expected benefits of NO_X reduction, and considering various other factors, EPA also proposed NO_X emissions reduction standards for Phase II reformulated gasoline based on the authority of section 211(c)(1)(A) of the Act. The proposed NO_X standards ranged from 0 to 14.8 percent reduction for VOC control region 1 (southern areas) and 0 to 15.4 percent reduction for VOC control region 2 (northern areas) [58 FR 17178–9 (April 1, 1993)]. Again, the NO_X emissions performance of a fuel would be determined using the proposed complex model. The range of proposed standards was based, in part, on different levels of potentially acceptable cost-effectiveness as well as whether the cost-effectiveness was calculated based on reductions in NO_X emissions alone or on the combined reduction in VOC and NO_X emissions.

EPA proposed alternative VOC standards that would apply depending on whether EPA adopted a NO_X reduction standard. These were based on changes in the cost-effectiveness analysis from combined VOC plus NO_X emissions reductions. As explained in the proposal, measures taken to achieve the NO_X reductions under this option would result in VOC emission reductions incremental to those obtained under the proposed VOC only standards, which were based solely on the cost per ton of VOC reduced. These additional VOC emission reductions obtained through a combined VOC plus NO_X standard presented the option of setting a standard for larger VOC reductions. EPA analyzed the cost-effectiveness of a more stringent VOC standard in connection with a NO_X standard, and proposed a range of values depending on the target cost-effectiveness level: for southern areas, 29.7–40.2 percent based on an 8.7 psi baseline RVP (20.7–33.8 percent reduction based on a 7.8 psi baseline RVP); for northern areas, 26.7–37.3 percent reduction.

In analyzing potential VOC and NO_X reduction requirements, EPA looked at two potential cost-effectiveness targets: $5,000/ton and $10,000/ton. These figures were selected as representative of the range of cost-effectiveness for controls which would be incurred by many ozone nonattainment areas in achieving attainment. In addition, they reflected higher cost-effectiveness values than those for any then-existing federal nationwide motor vehicle or motor vehicle fuel control programs.

Finally, EPA proposed a toxics emissions reduction standard between 20 and 25 percent. The 25 percent reduction standard proposed was based on the level specified in section 211(k)(3)(ii) of the Act. In the proposal, EPA recognized that while on average this level of toxics control was cost effective, it could be highly cost ineffective for some refiners. The statutory minimum 20 percent reduction standard was proposed as an alternative to allow refiners further flexibility in meeting the VOC and NO_X standards (and for some to reduce the need for capital intensive modifications

[8] According to section 211(k)(10)(A) of the Act, "baseline vehicle" means representative model year 1990 vehicles.

[9] The formulation for summertime baseline gasoline is defined in section 211(k)(10)(B) of the Act. See further discussion of baseline emissions in section IV.

[10] Relative to a baseline fuel including an RVP of 7.8 psi, the proposed VOC standards ranged between 20.7 and 31.7 percent reduction.

specific to toxics control), under circumstances where in most cases large reductions in toxics emissions would automatically result from the VOC and NO_X controls.

3. General Comments Received on Proposal

EPA received several comments recommending a reproposal of the Phase II standards once the complex model was finalized and EPA could develop a single standard for each pollutant. One comment stated that the construct of the complex model will have a significant effect on the standards, and it was therefore not possible to comment on the costs or performance of the Phase II standards as proposed (since they were not based on the final complex model). Others commented that it was improper to establish standards until the model that predicts benefits exists. EPA does not believe it is necessary to repropose these standards, since the proposal presented a range of values for the standards and outlined all of the options that were considered. The final standards were derived based on the final complex model, so the standards include the effect of the complex model on the emissions reductions predicted. EPA had proposed, and it was agreed in Reg-Neg, that the Phase II standards would be promulgated with the complex model.

Briefly described below are the factors EPA considered in setting the standards being promulgated today, the methodology used in determining the cost-effectiveness of fuel controls, and the reasoning used in determining the standards. The full analysis leading to the final standards is more thoroughly discussed in section VI of the regulatory impact analysis (RIA) associated with this rulemaking.

B. Factors Affecting Selection of the Phase II Standards

In determining the Phase II reformulated gasoline standards, EPA considered the health, environmental, and energy impacts, as well as the cost and the technological feasibility of reformulating gasoline to attain emission reductions of VOCs, toxics, and NO_X. EPA's analyses of these factors are discussed briefly below, and in detail in the RIA.

1. Health and Environmental Impacts

The purpose of the reformulated gasoline program is to reduce motor vehicle emissions of ozone forming VOCs and certain specified toxic air pollutants in those areas most in need of such reductions. As discussed above, EPA is also reducing ozone forming NO_X emissions from RFG as a part of this rulemaking. EPA measured the health and environmental benefits of the reformulated gasoline program in terms of the number of tons of VOC, NO_X, and toxics reduced, since the Act specifies mass-based emissions reductions. The benefits of toxics reductions were further evaluated on the basis of the number of cancer incidences avoided, since this is a common measure of the effectiveness of toxics control. The reader is directed to section C below for quantified estimates of these reductions.

The benefits of ozone reduction will be gained through the reduction of both VOC and NO_X emissions. Ambient ozone levels and the effect of VOC emission reductions on these levels vary from city to city, making it difficult to quantify the benefits of the VOC reduction beyond tons of emissions reduced. In general, reductions in VOC emissions will improve the air quality of most affected areas and thereby reduce the negative health impacts of exposure to high levels of ozone. Visibility and other environmental measures are also improved through reductions in emissions of ozone precursors. Similar benefits will be gained through reductions in NO_X emissions. The reader is directed to subsection C.2 for further discussion on the health and environmental benefits of NO_X control.

Reducing ozone levels in highly populated urban areas would help to reduce short-term health effects such as impaired lung function, cough, nausea, chest pain, throat irritation, increased susceptibility to respiratory infection, and increased sensitivity of asthmatics to allergens (e.g., pollen) and other bronchoconstrictors. Long-term health effects of exposure to ozone include accelerated aging of the lungs, reduced elasticity of the lungs, scarring of lung tissue, and permanent reductions in baseline lung function.

Although the reformulated gasoline program is concentrated in urban areas, some reformulated gasoline will be used in rural areas as a result of spillover in the distribution system. Reducing ozone levels in rural areas would enhance agricultural crop yield, currently estimated to be reduced by as much as $2–3 billion per year by existing ozone concentrations.[11] In addition, lower ozone levels would help reduce damage to forest ecosystems which experience lower tree growth rate, foliage damage, and increased susceptibility to stress (e.g., insects, disease, drought) caused by current tropospheric ozone levels.[12]

Reductions in mobile source emissions of the air toxics addressed in the reformulated gasoline program (benzene, 1,3-butadiene, formaldehyde, acetaldehyde, and POM) may result in fewer cancer incidences. A number of adverse noncancer health effects have also been associated with exposure to air toxics, particularly with higher level exposures experienced in particular microenvironments such as parking garages and refueling stations. These other health effects include blood disorders, heart and lung diseases, and eye, nose, and throat irritation. Some of the toxics may also be developmental and reproductive toxicants, while very high exposure can cause effects on the brain leading to respiratory paralysis and even death. The use of reformulated gasoline meeting the Phase II standards will likely help to reduce some of these health effects, as well. A more thorough discussion of the variety of possible non-cancer effects of concern from exposure to air toxics is contained in EPA's Motor Vehicle-Related Air Toxics Study.[13]

The emissions reductions and cancer incidences avoided as a result of today's standards are discussed below in section C.

In addition to the benefits from reductions in emissions of VOC, NO_X, and toxics, other environmental benefits will be realized as a result of the use of reformulated gasoline. Emissions of carbon monoxide will decrease as the result of adding oxygen to the fuel, to the benefit of areas out of attainment for this air pollutant and to human health in general.[14] In addition, since reformulated gasoline is projected to cost more than conventional gasoline, it is possible that consumers will purchase and, thus, use less gasoline, resulting in fewer overall emissions due to mobile sources.

2. Energy Impacts

Production of Phase II reformulated gasoline subject to performance standards for VOC, NO_X, and toxics will require an increase in the amount of energy used at the refinery. An estimate of the energy used depends on many factors, including how the energy balance is evaluated, the type and source of oxygenate, the refinery configuration, and the reformulation approach. Determining an exact energy

[11] U.S. EPA, "Air Quality Criteria for Ozone and Other Photochemical Oxidants," EPA Report No. EPA–600/8–84/020A-E, p.1–27.

[12] Ibid., p. 7–1 through 7–4.

[13] EPA document 420–R–93–005, April 1993.

[14] Most of this benefit will occur as a result of the use of oxygen in Phase I RFG, not from the Phase II reductions.

increase associated with reformulated gasoline production (on the basis of a constant level of gasoline energy produced) is difficult.

As later sections of this document will show, the standards for VOC and NO_x reduction promulgated today will likely be met largely through reductions in the sulfur content and Reid vapor pressure (RVP) of the fuel. The process used to remove sulfur from gasoline, hydrodesulfurization, is an energy intensive process; mainly due to the need for and consumption of hydrogen. The energy impact will depend on the sulfur level of the crude used by the refinery and the level of sulfur control necessary for that refinery to meet the standards. Reducing the RVP of the fuel requires removal of the lighter compounds in the fuel, also an energy consuming process. Overall, it is expected that the energy consumption by refineries in producing Phase II reformulated gasoline will increase slightly (perhaps a couple percent) over the level of energy used to make Phase I RFG, but the magnitude of this increase is difficult to measure due to the many variables involved.

3. Technological Feasibility

EPA also considered the technological feasibility of producing fuels to meet the Phase II standards. EPA believes that the refinery modeling results (from which the fuel parameter control costs were estimated) indicated that it is technologically feasible to make the fuel parameter changes that were analyzed in developing the standards. The refinery models utilize only well-developed, demonstrated, commercially available technologies, and are designed to only model fuels within the limits of these technologies.[15] Given the cost incentives created by this rulemaking, in all likelihood new technologies will be developed between now and the year 2000 which will reduce the costs for certain types of fuel parameter changes. Thus, EPA believes that the determination of fuel parameter control costs using the results of the existing refinery models is reasonable, that the costs generated are perhaps conservative, and that the technological feasibility of producing such emission-reducing fuels is justifiable. This position was supported by many of the comments received. While other commenters questioned the costs used in developing the proposal (as discussed in subsection 4.b), no comments questioned the technological feasibility of these refinery configurations.

Because the standards promulgated today will not take effect until the year 2000, and because all the processes needed to produce complying fuels are already commercially available, EPA does not believe that lead time will be an issue in achieving the required emissions reductions.

4. Fuel Safety and Driveability

EPA evaluated safety concerns associated with the use of low RVP fuels and found no significant negative impacts, as discussed in the RIA. Comments also raised concerns about driveability problems arising from the use of low RVP fuels. They raised concerns that EPA's analysis in the proposal did not address spring months (the transition time to the VOC control period), September RVP fuel sold in October, and low RVP gasoline sold in low temperature areas near nonattainment areas.

While neither EPA nor any other organization conducted driveability testing at low ambient summer temperatures, EPA has looked at the actual vapor pressure of fuels currently in production, as documented in the draft RIA.[16] Based upon a comparison of actual vapor pressures, EPA believes that 6.5 psi RVP fuel in the summer should have similar driveability to current winter fuels. At this time EPA believes there should be no significant driveability problems with gasoline at an RVP level down to 6.5 psi. Until such time as data can be gathered to more fully evaluate the driveability impacts of low RVP fuels, EPA believes that 6.5 psi may present a practical lower limit below which the existence of adverse driveability impacts is unknown. Discussions with representatives of both the oil and automotive industries reflected a similar uneasiness in going below 6.5 psi RVP given the lack of data at lower levels. However, the standards for Phase II RFG are performance based standards. As a result, flexibility exists for refiners to meet the Phase II standards, without reducing the RVP of the gasoline below 6.5 psi.

5. Cost-Effectiveness of Emissions Reductions

a. *Introduction.* For purposes of this discussion, EPA defines cost-effectiveness as the ratio of the incremental cost of a control measure to the incremental benefit, e.g., tons of VOC or other emissions reduced. Considering cost-effectiveness allows the Agency to develop a relative ranking of various ozone and toxics control strategies so that an environmental goal can be achieved at minimum cost. As the cost-effectiveness of an emission reduction strategy increases, it may be possible to achieve similar, substantial emission control in other ways (e.g., through other regulatory programs) at the same or lower cost per unit of benefit. EPA therefore considered cost-effectiveness in deciding what VOC, NO_x, and toxics control, if any, to impose beyond the minimum levels required under section 211(k)(3)(B).

One commenter recommended that EPA evaluate the cost-effectiveness of this program separately for small and large refiners, and also that EPA consider granting small refiners more time to comply with the requirements (as is allowed by California for California reformulated gasoline). The California reformulated gasoline program requires all refiners selling gasoline in the state to produce reformulated gasoline, and thus does not afford any flexibility to refiners, large or small. The federal RFG program, however, does not require 100% production of RFG in any region, nor does it require that every refiner produce RFG. Hence, small refiners can choose not to produce RFG and instead supply conventional gasoline if the costs of complying with the program are too burdensome. For those small refiners electing to produce RFG, the option to select between per gallon and averaging standards, as well as the ability to set their own baselines, gives them flexibility to meet the standards in the manner that is most cost effective for them. Furthermore, the enforcement structure is based on a single set of standards for Phase II RFG. Allowing some refiners to comply with a different set of standards would require additional and more complicated enforcement provisions, and could jeopardize the fungibility of reformulated gasolines.[17] Since EPA believes that the existing program provides sufficient flexibility to small refiners, there is no need to pursue multiple enforcement programs. See section XV for additional discussion of the impact of this rule on small refiners.

b. *Fuel Parameter Control Costs.* Fuel parameter control costs and interrelationships between fuel parameters are integral parts in the

[15] See the RIA for additional details on the refinery models used for this analysis.

[16] "Draft Regulatory Impact Analysis for the Notice of Proposed Rulemaking of the Complex Model, Phase II Performance Standards, and Provisions for Renewable Oxygenates," February 5, 1993.

[17] For Phase I RFG, the standards are set at the statutory minimum for both VOCs and toxics. EPA could not lawfully allow small refiners less stringent standards or more time to comply with the Phase I standards.

evaluation of the cost-effectiveness of Phase II RFG controls. The costs and interrelationships used to develop the VOC and toxics standards were estimated from the results of refinery modeling performed by Bonner and Moore Management Science,[18] by Turner, Mason, and Co. for the Auto-Oil Air Quality Improvement Research Program; [19] by Turner, Mason, and Co. for the Western States Petroleum Association (WSPA); [20] and by EPA in-house (using the Bonner and Moore refinery model).[21] EPA used these regional refinery models to estimate the cost and interrelationships of various fuel parameter controls. The final average nationwide costs were obtained by weighing the regional values by the estimated fraction of total reformulated gasoline (RFG) production in each region.

Many comments were received on the costs used in the proposal. Some of these comments, and EPA's response, are summarized here, while the RIA contains a complete discussion and analysis of the comments received. Several commenters questioned the appropriateness of using independent refinery models to generate costs for control of individual parameters. In addition, they questioned the aggregation of results from regional models to generate national average costs, and recommended instead using a model from the region likely to realize the highest costs for producing reformulated gasoline (PADD 1). While using regional models to estimate national average costs requires an acknowledgment of the inherent limitations in such models, EPA believes that it is appropriate to use them for the purpose of determining the costs to produce reformulated gasoline. The limitations and assumptions made in using the refinery models and the results of this analysis are discussed in detail in the RIA.

The manufacturing cost of producing gasoline is the sum of the capital recovery cost and the operating costs, adjusted for changes in the energy content of the fuel (to represent consistent fuel economy). VOC control is mandated only during the high ozone season, and thus all costs were allocated to the high ozone season in the refinery modeling work. In contrast to VOC control, toxics control and the benefits from reductions in toxics emissions occur year-round. Although the costs of toxics control should be determined on an annual basis, EPA used the same costs that were used for the VOC analysis, since it had been determined in the RIA (and supported by many comments received) that additional toxics control would be highly cost-ineffective. The level of either VOC or toxics control that is cost effective is not greatly affected by the accuracy of the costs, due to the magnitude of reductions achieved.

Some comments received on the proposal raised the concern that this method of determining costs did not accurately reflect all of the costs of the program, since the "compliance costs" for record keeping and enforcement, as well as costs incurred by pipelines or other entities, were not included. While it is true that "compliance costs" will be incurred as a result of the reporting and enforcement requirements of Phase II RFG, EPA does not anticipate the costs to be greater than those incurred by the Phase I RFG program. Refiners will already be supplying the information required by EPA for Phase I, and will continue to do so under Phase II. Hence, there is no additional cost of compliance to add to the costs of Phase II RFG.

Other factors affecting incremental fuel parameter control costs include the amount of reformulated gasoline produced by the refinery and the effects of fuel parameter changes on fuel economy. Because producing reformulated gasoline reduces flexibility in refinery operations, the cost of producing such fuels increases with the amount of reformulated gasoline that is produced in a given refinery. In this analysis, EPA used a scenario of RFG production based on participation in the reformulated gasoline program by the nine mandated areas, those areas which had opted into the program as of August 14, 1993 (the close of the comment period on the proposal), the entire Northeast Ozone Transport Region (including both attainment and nonattainment areas), and all other ozone nonattainment areas. This scenario was chosen to represent the Phase II RFG program that would result if all eligible areas opted into the program. Since the Ozone Transport Commission has not announced plans to opt-in to the RFG program, and the only additional nonattainment areas that have opted into the program since August 14 are those located in Kentucky, the volume of RFG production used for this analysis is overstated by about 20 percentage points. As a result, the cost estimates are higher than will likely be experienced, since use of RFG in the entire Northeast would severely limit refinery production in that region, incurring somewhat higher costs to individual refiners, particularly to those refiners which for economic reasons would choose not to produce RFG and merely continue producing conventional fuel.

EPA evaluated the costs for incremental control levels for a variety of fuel parameters. This evaluation revealed that the greater the level of control, the higher the costs of achieving that level. Complete information on the development of the individual parameter costs is provided in the RIA.

Several comments were received questioning the validity of evaluating the cost-effectiveness of Phase II RFG on a parameter by parameter basis. The recommended alternative was to evaluate the cost of producing a gasoline meeting the standards for a variety of refinery configurations, and to use this information to determine the cost-effectiveness of the standard. As explained in the RIA, EPA determined that it was appropriate to evaluate cost-effectiveness on an incremental basis to properly compare fuel controls to other forms of emission control.

c. *Emissions reductions.*—In determining the emission reductions and the associated cost-effectiveness of VOC control, EPA employed a convention typically used in estimating the benefit of both mobile and stationary source VOC controls. This convention requires the determination of cost-effectiveness on the basis of annual tons of VOC reduced. Thus, even though VOC emission reductions required under section 211(k) occur only during the high ozone season, the convention is to calculate the cost of the fuel parameter control per ton of VOC removed as if the high ozone season emission reductions were spread over the whole year. Comments were received that questioned the appropriateness of evaluating the cost-effectiveness on an annualized tons reduced basis rather than on a summer tons reduced basis, since the program is a summer program. The purpose of

[18] Bonner and Moore Management Science, "Study of the Effects of Fuel Parameter Changes on the Cost of Producing Reformulated Gasoline," Prepared for EPA under contract through Southwest Research Institute and the National Institute for Petroleum and Energy Research. This data, as well as data generated by EPA in-house, was made available to the public through the following document: "DOE and API Phase II Cost Estimates," EPA Memorandum from Lester Wyborny, FSSB, to the Air Docket, November 4, 1993.

[19] "Costs of Alternate Gasoline Reformulations, Results of U.S. Refining Study," Turner, Mason & Co. for the Economics Committee of the Auto/Oil Air Quality Improvement Research Program, April 1992.

[20] "WSPA Study of the Cost Impacts of Potential CARB Phase 2 Gasoline Regulations," Turner Mason & Company for the Western States Petroleum Association, November 18, 1993.

[21] "Aromatics and E200 Reformulation Costs," Memorandum from Lester Wyborny, EPA, to the Air Docket, December 10, 1993.

applying this convention to the evaluation of Phase II RFG was to allow direct comparison of the cost-effectiveness of this program with the cost-effectiveness of other VOC control strategies, which is typically calculated on a year-round basis. The only other appropriate alternative would be to recalculate the cost-effectiveness of all other programs on the basis of cost per ton of control during the high ozone season, the only time period when emission reductions for the purposes of ozone control are of any significant value.

Reductions in emissions of both exhaust and evaporative VOC are determined for a given fuel parameter change using the complex model. As discussed in earlier sections, the complex model statutory baseline emissions are based on 1990 vehicle technology, and compliance with the Phase II standards is measured relative to these base emissions. As explained in the RIA, EPA determined that the olefin level specified in the statutory baseline was not representative of the actual olefin level of gasoline in 1990. Phase I RFG includes no specific limits on olefins, and thus refiners can meet Phase I standards (under the complex model) by controlling any fuel parameters. However, refiners whose olefin baseline is significantly higher than the statutory level may need to reduce olefins to meet the no NO_x increase requirement, putting them at a competitive disadvantage because olefin control is costly. Hence, using data from Bonner and Moore modelling as well as fuel surveys from cities across the country, the baseline olefin level was reevaluated and set at 13.1 vol% for the purposes of determining cost-effectiveness.

Although the standards require reductions for baseline vehicles relative to the emissions from the statutory baseline fuel, the cost-effectiveness of a given fuel parameter control is measured based on actual, i.e., in-use emission reductions. For this reason, EPA determined the cost-effectiveness of fuel parameter changes relative to the incremental in-use emissions. The baseline in-use emissions were determined for 2003, a typical post-1999 year, using MOBILE5a with enhanced inspection and maintenance (I/M), as discussed in section IV.[22] Exhaust and evaporative percent reductions for in-use emissions are determined separately by applying the percent reduction in emissions predicted by the complex model to the in-use emissions, and then totalled to get total in-use emissions reductions. The cost, emissions reductions, and cost-effectiveness of incremental changes in fuel parameters for Phase II RFG is calculated relative to Phase I RFG.

To determine the cost-effectiveness of the toxics standard, EPA employed the convention of basing cost-effectiveness on the number of cancer incidences avoided. The number of cancer incidences avoided is determined based on the reduction in emissions of each regulated air toxic. The complex model was used to calculate the annual reduction in both exhaust and evaporative emissions of each toxic for each fuel reformulation. Each toxic emission has a different unit risk factor, defined as the number of cancer incidences per year per gram-per-mile-emission per person. Therefore, the emissions of each toxic pollutant were converted to an estimate of annual cancer incidences using the risk factor for that pollutant and the population of the participating reformulated gasoline areas. The total cancer incidences resulting from the total toxics emissions were then calculated by summing the cancer incidences for the individual toxics.

d. *Cost-effectiveness.* The costs and emissions reductions for each parameter change are combined to determine the incremental cost-effectiveness ($/ton) of each level of control, assigning all of the costs to the control of the pollutant of concern (VOC or NO_x). Several comments were received regarding this method of establishing cost-effectiveness. One comment suggested that refiners are likely to reduce parameters to levels lower than the mandated limits to ensure compliance with the standards. Thus it was suggested that the cost analysis should be based on a marginal increase in the standard to determine the true cost-effectiveness of the program. EPA's cost-effectiveness analysis is inherently an averaging analysis, however, since the cost estimates are based on the responses of average regional refineries to changes in fuel composition. Averaging allows refiners to be high or low for any batch of fuel, as long as their average meets the standard over the course of the entire compliance period. Measurement error goes both above and below the true values on any given batch of fuel, but should average zero over the course of many batches. As a result, there is no need for a compliance margin in setting an averaging standard.

EPA proposed a range of VOC and NO_x emission reduction standards based, in part, on two possible benchmarks for cost-effectiveness, $5,000/ton and 10,000/ton.[23] Several commenters stated that $5,000/ton was most appropriate, particularly in light of the inaccuracies in the cost analysis. Some commenters believed that $5,000/ton was too high compared to alternate control strategies, while others stated that this was reasonable compared to other strategies currently required.

Upon review of the costs of other VOC and NO_x control programs (see subsections C.1 and C.2 below), EPA believes that a cost-effectiveness benchmark of $10,000/ton is too high at this point in time and that a cost-effectiveness of approximately $5,000/ton is more appropriate for the Phase II VOC standard and the accompanying NO_x standard. The standards presented today fall within this guideline.

The cost-effectiveness of toxics control was similarly determined as the ratio of the total incremental cost for the incremental reduction in emissions to the total tons of toxics reduced. The cost-effectiveness of toxics control was also calculated as the ratio of total costs to incremental reductions in cancer incidences. EPA's proposal did not include any benchmark limits for the cost-effectiveness of toxics control, but did acknowledge that in most cases control above the statutory minimum was not cost-effective. This conclusion was supported by the comments received, and by the final analysis presented here.

C. Phase II Reformulated Gasoline Standards and NO_x Standards for Reformulated Gasoline

The following sections explain the development of the VOC standards for Phase II reformulated gasoline, and the NO_x standards EPA is setting for gasoline sold in RFG areas after 1999. The final standards are summarized in subsection 3 below.

1. VOC Standards Development

Table VI–1 shows the incremental fuel parameter control costs, emissions reductions, and cost-effectiveness calculated by EPA for use in setting the VOC emissions standards. The specific fuel parameter changes shown in the table are only examples; refiners may achieve the required standards by any combination of fuel component controls resulting in the required emissions performance. EPA received conflicting comments regarding which parameters

[22] Following the precedent set in the proposal, the *in-use* baseline for VOC Control Region 1 areas included an RVP of 7.8 psi. The standards set today are based on reductions relative to the statutory baseline fuel with an RVP of 8.7 psi, however.

[23] As discussed later, EPA considered a number of issues, including flexibility of refiners and burden to the industry, in addition to cost-effectiveness when setting the Phase II RFG standards.

would likely be controlled to meet the proposed standards in a cost effective manner. As demonstrated in the RIA, EPA has used all available information to determine which parameters can be controlled in a cost effective manner to achieve VOC emission reductions

TABLE VI–1.—FUEL PARAMETER CONTROL COSTS AND VOC REDUCTIONS[1]

Fuel parameter control	Incremental cost (¢/gal)	Cumulative reduction (%)	Incremental cost-eff. ($/ton)	Incremental to phase I ($/ton)
Phase I—RVP: 8.0 psi, Oxygen: 2.1wt%, Benzene: 0.95%:				
RVP to 7.1 psi	0.18	22.9	400	400
RVP to 6.7 psi	0.08	25.5	600	400
Sulfur to 250 ppm	0.12	[2]26.1	3,700	600
Sulfur to 160 ppm	0.56	27.1	11,000	1,300
Sulfur to 138 ppm	0.24	27.4	19,000	1,600
Sulfur to 100 ppm	0.52	27.8	24,000	2,300
Olefins to 8.0 vol%	0.78	26.2	(–)	3,700
Aromatics to 20 vol%	2.01	27.8	24,000	6,000
Oxygen to 2.7 vol%	0.61	28.2	28,000	6,600
Olefins to 5.0 vol%	2.77	27.4	(–)	11,000
E300 to 88%	0.35	27.4	48,000	11,000
E300 to 91%	2.01	27.5	198,000	14,000
E200 to 44%	0.38	27.7	37,000	14,000
E200 to 47%	1.32	28.4	36,000	15,000
E200 to 50%	2.97	29.0	96,000	18,000

[1] Based on costs and emissions reductions for VOC control region 2 (northern areas). Assumes all costs allocated to VOC control.
[2] RVP control down to 6.5 psi, the limit considered reasonable at this point in time for driveability purposes, would increase this value to 27.2% at a similar cost-effectiveness level.

As the information in the Table VI–1 shows, RVP control down to 6.7 psi achieves virtually all of the VOC emission reductions that are achievable at less than $5,000 per incremental ton of VOC reduced.[24] Sulfur can be reduced to a level of approximately 250 ppm at an incremental cost-effectiveness of less than $5,000 per ton, gaining an additional 0.6% VOC reduction, to achieve a total reduction (on average) of 26.1%. RVP could also be reduced further to 6.5 psi, the level currently considered a reasonable limit for driveability purposes, to obtain an additional 1.1% reduction (for a total of 27.2%). Incremental changes in fuel parameters other than RVP have only a marginal effect on VOC emissions and can be very costly; less than an additional one percent reduction would be achieved at a significantly higher incremental cost of over $10,000/ton VOC. In spite of the uncertainty in the cost estimates used, the level of VOC control that is cost effective is relatively insensitive to variations in cost due to the fact that anything other than RVP and the first increment of sulfur control causes the costs to escalate dramatically, making control of other parameters cost ineffective.

The cost-effectiveness of VOC control in Phase II RFG presented in Table VI–1 has been compared to the cost-effectiveness of other stationary and mobile source VOC control strategies. As summarized in the RIA, a review of the estimated cost-effectiveness of controlling VOC emissions from stationary sources yielded a wide range of values. Many of the existing VOC control strategies have minimal costs or even result in savings. However, a number of VOC control options have significant costs associated with them. For example, the estimated cost-effectiveness of reducing emissions from automobile and light truck coating operations in assembly plants is $1,090–4,000/ton VOC. Reducing emissions from the production of pneumatic rubber tires is estimated to cost between $150 and $18,800 per ton of VOC reduced, depending on the operation to which control is applied. Control of emissions from floating roof tanks used for storage of petroleum liquids can cost up to $3,700/ton VOC reduced. Reducing emissions from the production of high density polyethylene, polypropylene, and polystyrene resins can cost between $1,000 and $3,000/ton VOC reduced depending on the level of control.

Control of VOC emissions from mobile sources similarly is estimated (see the RIA) to result in a wide range of cost-effectiveness values, depending on the type of program and level of control achieved. Enhanced inspection and maintenance (I/M) programs will cost between $900–1,700/ton VOC reduced, while basic I/M was estimated to cost $5,400/ton VOC.[25] The Tier 1 standards for light duty vehicles (already implemented for the 1994 model year) were estimated to cost about $6,000/ton VOC.

2. NO_x Standards Development

While section 211(k)(2)(A) of the Act specifies that there be no net increase in NO_x emissions (over baseline levels) resulting from the use of reformulated gasoline, both a National Research Council study[26] and a study prepared for EPA[27] have indicated that additional NO_x reductions could significantly reduce ozone formation in many areas. Gasoline vehicles contributed 20–35% of total urban NO_x inventories in 1990 and are expected to contribute similar amounts in 2000.[28] As identified in subsection A.1 above, section 211(c) of the Act gives the Agency broad regulatory authority to regulate motor vehicle fuel quality if any emission

[24] Note that the cost of this level of reduction incremental to the emission reductions achieved by Phase I RFG is significantly less than $1,000/ton VOC.

[25] "Inspection/Maintenance Program Requirements," Final Rule, 57 FR 52984, November 5, 1992.

[26] "Rethinking the Ozone Problem in Urban and Regional Air Pollution," National Research Council, December 18, 1991.

[27] "Modeling the Effects of Reformulated Gasolines on Ozone and Toxics Concentrations in the Baltimore and Houston Areas," prepared for EPA,OPPE,APB by Systems Applications International, September 30, 1992.

[28] While Tier I vehicles, which have lower NO_x emissions than conventional vehicles, will be entering the fleet, they will have only had five years to displace older, dirtier cars by 2000. Anticipated growth in vehicle miles travelled will offset any emissions benefits gained from the use of cleaner cars.

product of such fuel causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare. Based on the reports cited above, other EPA work in ambient ozone analysis, and the authority granted EPA under section 211(c), EPA proposed setting a NO_x emission reduction standard in connection with the Phase II standards to further reduce ozone formation during the high ozone season.

A number of aspects of the RFG program lead naturally to a focus on NO_x control. First, Phase II RFG is focused on the worst ozone nonattainment areas. Second, these areas will be required to use VOC controlled Phase II RFG only during the time of the year when control is needed (the summer months). Third, special fuel distribution for RFG will already be in place in these areas; many of the costs of producing and distributing this new gasoline will have been incurred as a result of the Phase II program. Fourth, EPA has shown (in the RIA and the following sections) that gasoline can be refined cost-effectively to reduce NO_x emissions.

EPA sees little benefit in creating a second gasoline program, which would likely differ only slightly from RFG in the geographic areas affected, to control NO_x emissions. A large segment of the industry is already making the changes necessary to comply with the Phase I RFG standards in 1998 relative to the statutory baseline for sulfur and olefin levels (and all other parameters defined). Therefore, many refiners will be assessing the need for sulfur and olefin control in the next few years to ensure they comply with the no NO_x increase requirement of the Act. Promulgated separately, a NO_x standard would require refiners to make changes to their refineries in addition to those already made to comply with Phase I RFG and the Phase II VOC and toxics standards, perhaps making some of the original refinery changes obsolete. By enacting a NO_x emissions reductions program at this time EPA hopes to avoid this concern. EPA believes that in locations where reformulated gasoline is found necessary to reduce the formation of ozone, a NO_x standard is appropriate as well, as discussed below and in Section VI of the RIA.

The Agency received many comments about the proposed NO_x standards. Some commenters claimed it was counter to the regulatory negotiation agreement. This concern has been addressed in section A above. Others felt that NO_x control should be considered on a local basis to meet local needs and thus should not be part of a national fuel program. Another stated that states should have to demonstrate the need for mobile source NO_x control before EPA required it. Some commenters supported NO_x control based on the cost-effectiveness analysis presented in the proposal because of the similarity with the costs of other current NO_x control programs. One comment suggested that EPA control NO_x by eliminating the oxygen requirement using the authority granted in section 211(k)(2)(A). It was also questioned whether EPA had satisfied the requirements to use the authority granted in section 211(c) regarding the supporting information presented in the proposal. The remainder of this section presents EPA's response to these concerns; additional detail may be found in the RIA.

a. *Scientific justification for NO_x control.* As discussed in the RIA, a recent study by the National Research Council (NRC) indicated that VOC control alone is of minimal benefit to ozone nonattainment areas such as Houston which have high VOC to NO_x ratios in the ambient air.[29] The NRC study and work by EPA [30] and others [31] have also indicated that NO_x control is an effective ozone control strategy for the northeast (including New York-Connecticut and Boston-Maine) as well as the Lake Michigan region (Milwaukee, Chicago, and Muskegon). In general, many studies have shown that NO_x control alone may be helpful in achieving ozone reductions in some areas, though not necessarily in all areas, again depending on the VOC to NO_x ratios. Reductions in emissions of both VOC and NO_x should benefit all areas, however. Those areas that do not benefit from the reduction in NO_x emissions should benefit from the large reduction in VOC emissions that will be achieved by Phase II RFG.

There are also non-ozone benefits of NO_x control, such as reductions in emissions leading to acid rain formation, reductions in toxic nitrated polycyclic aromatic compounds, lower secondary airborne particulate (i.e. ammonium nitrate) formation, reduced nitrate deposition from rain, improved visibility, and lower levels of nitrogen dioxide. A complete discussion of these benefits can be found in the RIA. A NO_x standard also should effectively protect against an increase in the olefin content of the fuel, reducing concern over a possible increase in the reactivity of vehicle emissions.

b. *Consideration of section 202 motor vehicle controls.* Before controlling or prohibiting a fuel or fuel additive under section 211(c)(1)(A), the Administrator must consider "other technologically or economically feasible means of achieving emission standards under section [202]." This has been interpreted as requiring consideration of regulation through motor vehicle standards under section 202 prior to regulation of fuels or fuel additives under section 211(c)(1)(A) [*Ethyl Corp. v. Environmental Prot. Agcy.*, 541 F.2d 1, 32 (D.C. Cir. 1976)]. This does not establish a mandatory preference for vehicle controls over fuel controls, but instead calls for the good faith consideration of motor vehicle standards before imposition of fuel controls [541 F.2d at 32 n.66]. This reflects Congress' recognition that fuel controls under section 211(c)(1)(A) might logically involve controls on fuel composition itself, while vehicle standards under section 202 are generally performance standards, regulating vehicle emissions and not the design or structure of the vehicle. Fuel controls might therefore lead to greater government involvement in the regulation of the manufacturing process than would be expected from vehicle controls [541 F.2d at 11 n.13].

Congress addressed this concern by requiring agency "consideration" of vehicle standards under section 202 before imposition of fuel controls under section 211(c)(1)(A). It is important to note that the Administrator must in good faith consider such vehicle controls, but retains full discretion in deciding whether to adopt either fuel or vehicle controls, or both [541 F.2d at 32 n.66].

In evaluating motor vehicle controls under section 202 in this context, the first major point to consider is that EPA has already imposed more stringent NO_x control standards on motor vehicles. The Tier 1 standards for light-duty motor vehicles and trucks require reductions in light-duty motor vehicle NO_x emissions starting with model year 1994, with a percentage phase-in of the more stringent Tier 1 standards until they apply to all new model year 1996 and later light-duty vehicles and trucks. These vehicles are also required to meet in-use standards.[32] For heavy-duty vehicles, EPA recently reduced the NO_x standard to 4 g/bhp-hr, starting with

[29] National Research Council, *Rethinking the Ozone Problem in Urban and Regional Air Pollution*, National Academy Press, Washington, D.C., 1991.

[30] U.S. EPA, *Regional Ozone Modelling for Northeast Transport* (ROMNET), EPA Report 450/4-91-002a, June 1991.

[31] See the RIA for additional references.

[32] 56 FR 25724, June 5, 1991. Also, note that the Tier 1 standards apply to light-duty trucks with a loaded vehicle weight rating of 3,750 lbs. or less.

model year 1998 [58 FR 15781, March 24, 1993]

While these motor vehicle and motor vehicle engine controls are expected to reduce mobile source emissions of NO_X, this result is limited by certain basic facts. First, the standards only apply to new motor vehicles and engines. It will therefore take several years after the first model year of the standards before vehicles and engines certified to these standards will make up a significant portion of the motor vehicle fleet.[33] In addition, it is expected that emissions reductions based on the reduction in the NO_X standard will be offset to a significant extent by an increase, over time, in total vehicle miles travelled.

In addition to motor vehicle controls under section 202, EPA has recently adopted or proposed other controls aimed at in-use NO_X emissions from mobile sources. The enhanced inspection and maintenance (I/M) rules call for use of these more stringent I/M procedures starting with 1996 [57 FR 52950, November 5, 1992]. EPA has also proposed standards that would limit NO_X emissions from new large horsepower diesel non-road engines, pursuant to section 213 of the Act [58 FR 28809, May 17, 1993]. While enhanced I/M programs will directly affect the motor vehicle fleet, the non-road engine regulations are similar to the motor vehicle regulations under section 202 in that they would apply to new non-road engines only, and therefore involve a certain time before a significant portion of this category of non-road engines is replaced by new engines certified to meet the NO_X standards.

Additional mobile source controls, whether under section 202 or under other authority such as described above, may well be cost effective and reasonable options that EPA might decide to adopt. However, there are certain limitations imposed by Congress on adoption of more stringent standards ("Tier 2 standards"). For example, Congress spelled out when and under what conditions EPA may promulgate more stringent NO_X standards for light-duty vehicles and trucks. Congress required that EPA conduct a study on whether more stringent standards for light-duty vehicles and trucks should be adopted, and report back to Congress no later than June 1, 1997 [section 202(i)(1), (2)]. Based on the study EPA must conduct a rulemaking to determine whether there is a need for such further reductions, whether the technology will be available for such reductions, and whether further reductions in emissions from such vehicles will be cost effective. If these determinations are made in the affirmative, then EPA would proceed to promulgate emissions standards that are more stringent than the Tier 1 standards [section 202(i)(3)(C)]. If EPA does promulgate more stringent standards, they may not take effect any earlier than model year 2004, and no later than model year 2006.

It is clear from this that EPA has not, at this time, completed the lengthy process for determining whether or not more stringent standards should be established for light-duty vehicles and trucks under section 202(i). Congress established a detailed provision spelling out the procedures to follow and the substantive determinations that must be made before such controls could be adopted. There is no indication, and EPA does not believe, that these mandated procedures and criteria preclude the exercise of discretion under section 211(c)(1)(A) prior to completion of the rulemaking under section 202(i). Congress required that EPA consider motor vehicle controls, but did not establish a mandatory preference for such controls and did not preclude the adoption of fuel controls prior to a decision on Tier 2 motor vehicle standards.

In any case, it is clear that a decision to impose more stringent NO_X standards for light-duty vehicles and trucks under section 202(i) could not take effect prior to model year 2004. It would then take several years before a significant portion of the in-use fleet would include vehicles or trucks certified to a NO_X standard more stringent than the Tier 1 standard. A similar situation would apply to a more stringent NO_X standard for heavy-duty engines. The mandatory leadtime and stability provision of section 202(a)(3)(C) would preclude imposition of more stringent NO_X standards for heavy-duty engines until model year 2001 at the earliest. It would again take several years before a significant portion of the in-use heavy-duty fleet contained engines certified to a more stringent NO_X standard. For non-road engines and vehicles, EPA expects to continue to explore NO_X controls. But as with motor vehicles, any new or more stringent NO_X standards will only apply to new non-road engines, after providing a reasonable period for leadtime. The effect on in-use emissions is delayed based on the time needed before new non-road engines replace earlier models.

Given these circumstances, there are several important reasons why promulgation of a NO_X reduction standard for reformulated gasoline is important, whether or not additional vehicle or engine controls are later adopted by the Agency. First, emissions reductions from the NO_X performance standard would start as soon as the standard is applicable, with no delay based on fleet turnover time. Significant NO_X emission reductions would be achieved right away, in the summer of 2000, while more stringent light-duty or heavy-duty standards would not be expected to significantly affect in-use emissions until much later in that decade. Second, a NO_X reduction standard for reformulated gasoline would act to reduce emissions from all mobile sources that use gasoline, whether on-road or off-road, while section 202 or section 213 standards only act to limit emissions from new engines or vehicles in that specific category of mobile sources. Third, this fuel control is specifically aimed at areas of the country that are in nonattainment for ozone, and is limited in time to that part of the year when ozone is of most concern. Vehicle or engine controls, in contrast, apply to all new engines or vehicles, wherever they are used, throughout the year. This fuel control thus allows a more narrow regulatory solution aimed at the specific geographical areas and time periods when control is needed. Fourth, the expected increase in vehicle miles travelled over time leads EPA to believe that this fuel control is needed to continue to achieve the in-use NO_X emission reductions necessary for many areas of the country to reach attainment for ozone. Finally, the NO_X fuel standard adopted here minimizes any concern there might be that a fuel control would tend to interfere in the production process by directing refiners on how to make their product. The NO_X standard is not a fuel recipe, but instead establishes a performance standard, leaving refiners free to produce their gasoline in any way that achieves the desired reductions.

EPA is not at this time determining whether additional vehicle or engine NO_X controls should be adopted under section 202 or any other provision of the Act. Instead, based on all of the above, EPA believes that a NO_X reduction standard for reformulated gasoline under section 211(c)(1)(A) is an appropriate exercise of discretion, whether or not the agency imposes additional vehicle or engine NO_X controls in the future.

c. *Cost-effectiveness of NO_X control in RFG.* EPA has evaluated the cost-effectiveness of NO_X control using the same costs that were used in establishing the standard for VOC control. The results are summarized in

[33] As supported by the MOBILE5a model, 58 FR 29409, May 20, 1993.

Table VI–2 below. The table indicates that sulfur is the only fuel parameter that results in significant NO_X reductions at a reasonable cost. Changes in fuel parameters other than sulfur have only a small effect on NO_X emissions at significantly higher costs, with the possible exception of olefin control (which would increase VOC at the same time it reduced NO_X). A NO_X reduction of approximately 6.8% could be achieved with sulfur control down to approximately 138 ppm at a reasonable cost, whether compared on the basis of the cost of the last increment of reduction (5.8% to 6.8% NO_X) or the overall cost incremental to Phase I RFG reductions.

TABLE VI–2.—FUEL PARAMETER CONTROL COSTS AND NO_X REDUCTIONS [1]

Fuel parameter control	Incremental cost (¢/gal)	Cumulative reduction (percent)	Incremental cost-eff. ($/ton)	Incremental to phase II ($/ton) [2]
Phase I:				
RVP: 8.0 psi, Oxygen: 2.1wt percent, Benzene: 0.95 percent.				
RVP to 6.7 psi	.....	0.4		
Sulfur to 250 ppm	0.12	2.4	1,300	3,200
Sulfur to 160 ppm	0.56	5.8	3,700	3,500
Sulfur to 138 ppm	0.24	6.8	5,200	3,700
Sulfur to 100 ppm	0.52	8.7	6,200	4,200
Olefins to 8.0 vol percent	0.78	10.8	8,000	5,000
Aromatics to 20 vol percent	2.01	11.9	40,000	8,200
Oxygen to 2.7 vol percent	0.61	12.5	25,000	8,900
Olefins to 5.0 vol percent	2.77	14.1	37,000	12,000
E300 to 88 percent	0.35	14.1	(–)	13,000
E300 to 91 percent	2.01	14.2	820,000	16,000
E200 to 44 percent	0.38	13.9	(–)	17,000
E200 to 47 percent	1.32	13.7	(–)	19,000
E200 to 50 percent	2.97	13.5	(–)	24,000

[1] Based on costs and emissions reductions for VOC control region 2 (northern areas). Assumes all costs allocated to NO_X control. Cost effectiveness values will be slightly lower if credit given for the VOC reductions that also result with some of the fuel changes.
[2] NO_X cost effectiveness incremental to a Phase II VOC standard would be slightly lower, especially for the first few increments.

A NO_X emissions reduction of 6.8% would be slightly less than half of that achieved from California Phase II reformulated gasoline, since California requires sulfur reduction to approximately 30 ppm,[34] aromatics reduction to 22 vol%, olefins reduction to 4 vol%, and control of fuel distillation parameters.[35] However, the cost-effectiveness of producing a fuel with the requirements of California Phase II RFG in a national program would be extremely poor (roughly an order of magnitude higher) relative to that of the standards being set today.

d. *Cost-effectiveness of other NO_X control strategies.* The cost-effectiveness of a 6.8% NO_X standard has been compared to the cost-effectiveness of other existing and planned mobile and stationary source NO_X control programs. The Tier 1 emissions standards for light duty vehicles (already implemented for the 1994 model year) described above in 2.b will incur an estimated incremental cost of $2,000–6,000/ton NO_X if credit is only given for those emission reductions achieved in ozone nonattainment areas (to allow direct comparison with reformulated gasoline). Increasing the stringency of the NO_X cutpoint in enhanced inspection and maintenance programs (in effect, causing a greater number of vehicles to fail the test and incur repair costs) is estimated to have a cost-effectiveness of $4,000–8,000/ton. Achieving the Tier 2 mobile source NO_X standards (should EPA determine that such standards are necessary to meet air quality requirements) are likely to cost more than $10,000/ton of NO_X reduced.

Certain NO_X controls for heavy-duty highway and nonroad vehicles are likely to be as or more cost effective as a 6.8% NO_X reduction standard. EPA is in the process of developing and studying such controls. However, as discussed in subsection 2.b, heavy-duty NO_X controls cannot be implemented without mandatory leadtime provisions, and thus the benefits of these controls will not be realized for many years beyond implementation of the Phase II RFG standards. In addition, all heavy-duty mobile source NO_X control strategies that have not yet been implemented or are not already under consideration are likely to be very costly. NO_X control combined with the reformulated gasoline program is very reasonable by contrast.

The comparative cost-effectiveness to stationary source NO_X emission controls is based on control strategies suggested for utility boilers.[36] In ozone nonattainment areas, standards are being considered that will require controls more stringent than suggested by reasonably achievable control technology (RACT) standards. The RACT standards will likely be met through the use of low NO_X burner technology. This technology has a relatively low cost-effectiveness at up to $1,000/ton, but the achievable emissions reduction is limited. In order to attain the required level of control for utilities to meet the ozone air quality standard in many areas, additional controls will likely be required, especially by the year 2000. One of the likely strategies utilized will be selective catalytic reduction (SCR) which is estimated to cost $3,000–$10,000/ton NO_X.

3. Final VOC Standards and NO_X Standards

To reduce the cost to the industry of complying with the Phase I and Phase II RFG standards, EPA had proposed granting refiners the option of meeting the VOC and the air toxics emission standards on an averaging basis rather than requiring compliance on a per

[34] All values based on the averaging standard.

[35] Based on the same methodology used to determine the 7.0% NO_X reduction for federal RFG (using the complex model), California Phase II RFG is estimated to achieve a NO_X reduction of about 14.6%.

[36] "Evaluation and Costing of NO_X Controls for Existing Utility Boilers in the NESCAUM Region": Draft Report prepared by Acurex Corp., prepared for Bill Neuffer, OAQPS, U.S. EPA, October 1992.

gallon basis. However, the NO_X emissions standards had to be met on a per gallon basis rather than on an average basis.

Several comments received on the NO_X standard expressed a desire for the allowance of NO_X averaging as well as a per gallon standard. According to these comments NO_X averaging would provide greater flexibility to refiners, and was consistent with the Reg-Neg agreement. One comment stated that NO_X averaging would not cause air quality concerns, while a per gallon NO_X standard (even at no NO_X increase) would impose substantial constraints on VOC.

NO_X averaging would provide the industry with greater flexibility in meeting the NO_X standard for Phase II RFG. In addition, the cost-effectiveness analysis is inherently based on averaging (since the costs are derived based on regional refinery models). Hence, EPA has elected to allow both a per gallon and an averaging standard for NO_X emissions under the Phase II RFG program. As discussed in section VII, the Phase II averaging standard for NO_X is set 1.3 percentage points more stringent than the per gallon standard (slightly smaller than the increment for VOC and air toxics). A minimum per gallon standard (under averaging) will be set at 4 percentage points below the averaging standard, following the precedent set with the VOC standard for Phase I RFG.

Based on all of the factors discussed above, as well as the results of the regulatory impact analysis, EPA today is setting VOC reduction standards for Phase II reformulated gasoline and concurrent NO_X reduction standards for gasoline sold in areas participating in the RFG program beginning in the year 2000. (The toxics standard is discussed below in subsection 4.) The standards are shown in Table VI–3 below. The combination of fuel parameters on which the standards are based is just one of many fuel formulations which could be used to achieve the standards. From EPA's analysis of cost-effectiveness, however, it is clear that RVP control and sulfur control are expected to be the basic fuel parameter changes that refiners will rely on to comply with these standards. At the same time, it must be stressed that today's standards are performance standards which may be met by the refiner's choice of fuel parameter controls; EPA is not establishing specifications for fuel composition. Specific issues concerning these final standards are discussed in the following sections.

TABLE VI–3.—VOC STANDARDS FOR PHASE II REFORMULATED GASOLINE AND NO_X REDUCTION STANDARDS

[Percent Reduction in Emissions]

Controlled emission	VOC control region 1	VOC control region 2
VOC:		
Per gallon	[1] 27.5	25.9
Averaging	29.0	27.4
Minimum	25.0	23.4
NO_X:		
Per gallon	5.5	5.5
Averaging	6.8	6.8
Minimum	3.0	3.0

[1] Reductions relative to a base fuel with RVP at 7.8 psi on a per gallon basis would be 17.2% for VOC and 5.3% for NO_X.

a. *Flexibility for refiners.* The VOC and NO_X standards presented in Table VI–3 were determined assuming both controls were necessary. Were EPA not to set a NO_X standard, there may be greater flexibility to further control RVP for the purposes of VOC control. As shown in Table VI–1, for the purposes of VOC control RVP to 6.5 and sulfur to 250 ppm would achieve a reduction of 27.2% in VOC control region 2, at an incremental cost-effectiveness of $3,700/ton VOC (or less than $600/ton incremental to the Phase I reductions). This is nearly the same level of reduction achieved with RVP at 6.7 psi and sulfur reductions to 138 ppm under the combined VOC and NO_X standards.

Various comments questioned basing the VOC standard on a gasoline RVP of 6.5 psi, due to potential driveability problems with fuels at lower RVPs (which refiners will produce on occasion to meet the average standard). Commenters were concerned that the VOC standard would reduce the flexibility available to refiners by essentially requiring all RFG to have an RVP of 6.5 psi. As discussed previously, EPA currently believes that 6.5 psi RVP is a practical limit in the reduction of gasoline volatility, due to the lack of information at the present time to ascertain whether or not driveability problems exist below that level. In the absence of NO_X control, EPA believes that adequate flexibility would still exist for refiners to meet a VOC performance standard based on the control of RVP down to 6.5 psi, since some flexibility still exists in adjusting sulfur and olefin levels. However, in the context of a NO_X standard this flexibility is greatly reduced.

A fuel meeting the combined requirements of 6.5 psi RVP and 138 ppm sulfur would achieve a VOC reduction of 28.4% (in VOC control region 2) and a NO_X reduction of 6.9%. Standards based on this fuel formulation could severely restrict the flexibility for some refiners, and pose an undue burden on others. For example, refiners with various parameter levels above the statutory baseline would need additional VOC control to offset the VOC impact of these parameters. Under the above scenario, these refiners would be limited in achieving further RVP control, since the ability to further reduce RVP and sulfur and/or increase olefins would be limited. This would significantly increase the cost-effectiveness of the VOC control.

Upon consideration of these concerns, among other issues, EPA decided to set a VOC standard derived based on a fuel RVP of 6.7 psi to allow refiners some flexibility to meet the performance-based VOC standard through control of RVP without the need to go below 6.5 psi. By setting a concurrent NO_X standard based largely on additional sulfur control, which also achieves some small additional VOC reductions, refiners will not need to go as low as 6.5 psi to meet the equivalent level of VOC control. The cost-effectiveness of a 6.8% (on average) NO_X reduction standard when credit is given for the additional level of VOC control obtained at this level of sulfur reduction is approximately $5,000/ton NO_X reduced.

b. *Costs and emissions reductions.* The overall cost of the Phase II reformulated gasoline VOC standards and NO_X standards for Phase II RFG is approximately 1.2 cents per gallon (incremental to Phase I RFG). This value appears to be reasonable, as the less stringent Phase I reformulated gasoline cost is estimated to be about 3–5 cents per gallon, as discussed in section V. EPA does not expect non-production related costs, such as distribution costs, recordkeeping and reporting costs, etc., to increase relative to Phase I reformulated gasoline. A complete discussion of the development of these costs is found in the RIA.

As a result of today's standards, VOC emissions will be reduced by about 10,000 tons in VOC control region 1 (southern) areas each summer and 32,000 tons in VOC control region 2 (northern) areas. In addition, southern areas will experience a reduction of about 8,300 tons NO_X and northern areas will experience a reduction of 13,800 tons NO_X. The emissions reductions experienced in southern areas are smaller than experienced in northern areas due to the fact that southern areas are already required to use fuels with lower Reid vapor pressures, and thus the emissions reduction benefits of RFG use in these areas is smaller.

c. *Compliance margin consideration.* Several commenters expressed a desire for looser standards to account for compliance margins. The optional provision for averaging standards allows refiners to meet the standards in the manner which is most cost-effective for their refinery in exchange for meeting a standard that is considered at least or more stringent as the per gallon standard plus a compliance margin. The VOC and NO_X reduction standards have both been based in part on a cost-effectiveness analysis that implicitly is based on an averaging standard. In that case, a compliance margin becomes much less relevant, if at all, because of the flexibility introduced through averaging.

d. *Local selection of VOC or VOC and NO_X control.* EPA requested comments on an option to allow nonattainment areas to select between either VOC control or combined VOC and NO_X control, depending on the air quality needs of that area. A potential problem with this option is that it would require production of another type of reformulated gasoline in one or more grades. Distribution problems and complications already expected with implementation of the reformulated gasoline requirements could increase.

Many commenters opposed this option, citing added costs and complications to the distribution system which would likely result. No commenters appeared to be strongly in favor of it. Hence, the Agency has chosen not to allow local selection of a VOC and/or NO_X control program. The standards for VOC and NO_X emissions will apply to all reformulated gasoline areas.

e. *Other options considered.* EPA proposed [37] and investigated several options for VOC standards. One proposed option was to set a VOC standard at the statutory level of 25% reduction; this standard could also be set higher based on the cost-effectiveness analysis. Also mentioned in the NPRM was the option to relax the VOC standard if a NO_X standard was promulgated to allow refiners more flexibility in meeting both standards. Finally, EPA proposed granting refiners the option to trade off VOC and NO_X control within fixed limits on either standard.

EPA determined that setting only a 25% reduction VOC standard (with a requirement of no NO_X increase) would provide minimal NO_X reductions and marginal VOC benefits to southern (VOC Control Region 1) areas which will already use lower RVP fuel than northern areas under Phase I. A higher VOC standard selected based on a cost-effectiveness benchmark of about $5,000/ton would get somewhat greater NO_X reductions and some additional VOC reductions in southern areas.

EPA has set the VOC standard based on a level of reduction that would allow flexibility to refiners and would not be too economically burdensome. Since a NO_X standard is being set concurrently, EPA set the VOC standard based on a slightly more relaxed RVP than might have been used if only a VOC standard were implemented, as discussed above in subsection a. One comment on the proposal strongly opposed lessening the maximum achievable level of VOC reduction to achieve NO_X reductions. As discussed above, however, roughly the same level of VOC reduction is being achieved with both a NO_X standard and a VOC standard (basing the standard on a fuel with 138 ppm sulfur and an RVP of 6.7 psi) as would be achieved if only VOC control were required (basing the standard on a fuel RVP of 6.5 psi and a sulfur level of 250 ppm).

The final option proposed by EPA was to set a combined VOC and NO_X standard and allow refiners flexibility in controlling emissions of either. As discussed in subsection C.2 above, EPA believes it is important to achieve both VOC and NO_X control. VOC control alone would not provide significant ozone reduction benefits in all areas using RFG. The option of allowing refiners to meet a combined VOC and NO_X standard would have likely resulted in VOC control (primarily through RVP reductions) with minimal NO_X control. Refiners would have had a strong incentive to augment the complex model through vehicle testing and push RVP well below the 6.5 psi level in order to avoid sulfur control (for NO_X reductions), since RVP control is much less costly. As mentioned previously, EPA has significant concerns about driveability problems with fuels with RVPs lower than 6.5 psi. Since refiners would be limited in their ability to cost effectively achieve the combined standards, the reductions achieved through this type of program would be in question. Hence, EPA has decided not to implement a combined VOC and NO_X standard. No significant comments were received on this option.

4. Toxics Standard

The statute sets the minimum Phase II standard for toxics reduction at 25%, although EPA has the authority to reduce this to no lower than 20% "based on technological feasibility, considering cost." [38] EPA proposed both levels of reductions as options for the toxics standard. EPA has looked at the technology required to attain a 25% toxics standard, and the cost of implementing that technology. EPA expects that the technology implemented by refiners to comply with the required VOC and NO_X reductions will result on average in a 26% reduction in annual toxics at reasonable costs, as discussed earlier. For certain refiners with higher baseline levels of various parameters, however, EPA expects that compliance with the VOC and NO_X standards will not automatically lead to compliance with a 25% toxics standard. For these refiners, additional toxics control will typically require further benzene reduction or aromatics reduction (if octane can be maintained). Benzene reductions would impact only emissions of benzene, not 1,3-butadiene, which has been shown to be of greater cancer-causing risk to the public than the other air toxics.[39] (The statutory requirements of section 211(k) requires a focus on reductions in mass emissions of air toxics, not on a reduction in cancer risk, and therefore does not permit EPA to set the standard based on cancer risk.) Implementation of the benzene and/or aromatics reduction technology will be expensive and will raise their costs of production, putting refiners facing this situation at a competitive disadvantage to those refiners who comply with the toxics standard "for free" based on their compliance with the VOC and NO_X standards. In addition, a requirement of additional toxics reductions may also limit refiners' flexibility in producing reformulated gasoline.

EPA has considered two additional factors in considering the feasibility of requiring this subset of refiners to pay the costs of implementing additional toxics control technology in order to meet a 25% standard. First, even if the toxics standard is reduced to 20%, EPA believes that the average toxics reduction across all refiners will still be above 25% based upon the fuel changes used to comply with the VOC and NO_X standards. Second, the additional toxics control required by this subset of refiners results in very high cost per cancer incidence avoided. The main control strategies for toxics, benzene and aromatics reductions, are very expensive, in excess of $100 million/CI. This is well beyond the $1–10 million/

[37] As corrected in 58 FR 17175, Thursday, April 1, 1993.

[38] The toxics standard is a requirement for an average percent reduction over the entire year, not solely in the summer (high ozone) season.

[39] "Motor-Vehicle Related Air Toxics Study," EPA Report 420–R–93–005, April 1993.

CI which the Agency believes to be achievable through other programs. Even though a 25% toxics standard is technologically feasible, the unique circumstances discussed above raise questions about the increased cost to this subset of refiners of implementing additional toxics reduction technology.

Based on these concerns regarding the costs of implementing toxics control technology, EPA is setting the toxics standard for Phase II RFG in both VOC control regions at 20%. There was general support in the comments received for the fact that the cost-effectiveness of toxics control beyond a 20% reduction is questionable. No substantive comments were received opposing the option of setting the standard at the minimum 20% reduction.

Based on today's standards and the analysis summarized in the RIA, about 630 tons of toxics will be reduced in VOC control region 2 each summer and 370 tons of toxics in VOC control region 1. Emissions of all toxics except formaldehyde will be reduced. As a result of these emissions reductions, approximately 3–4 cancer incidences will be avoided annually nationwide (incremental to Phase I).

VII. Enforcement

Section 211(k) of the Clean Air Act requires, beginning January 1, 1995, that the gasoline sold or dispensed in certain ozone nonattainment areas must be certified as reformulated. Gasoline that is not certified as reformulated is classified as conventional gasoline and must be sold outside these nonattainment areas. Under the enforcement scheme promulgated today, refiners and importers will be required to designate all gasoline as either reformulated or conventional. Gasoline designated as reformulated must meet the standards for reformulated gasoline, and conventional gasoline must meet the anti-dumping standards for conventional gasoline. In addition, refiners and importers will be required to prepare product transfer documents for all gasoline produced or imported, that identify the gasoline as reformulated or conventional and specify restrictions as to the time and place where the gasoline may be used.

Parties downstream of refiners and importers that transport, store, or dispense gasoline are responsible for ensuring that only reformulated gasoline is used in reformulated gasoline covered areas, and that reformulated gasoline is used at a time and place consistent with the time and place of use restrictions recited in the product transfer documents. In addition, downstream parties are responsible for ensuring that reformulated gasoline does not violate the per-gallon minimum and maximum standards, discussed more fully below.

During calendar years 1995 through 1997, refiners and importers may certify reformulated gasoline pursuant to either the Phase I simple model standards, or the Phase I complex model (early use) standards. This election must be made separately for each refinery on a calendar year basis. During calendar years 1998 and 1999, all reformulated gasoline must meet the Phase I complex model standards, and beginning in 2000, all reformulated gasoline must meet the Phase II complex model standards.

The final rule establishes reformulated gasoline standards for oxygen, benzene, toxics emissions performance, and heavy metals under all models. Standards for RVP, sulfur, T–90, and olefins are included only under the simple model, and standards for VOC and NO_X emissions performance are included only under the Phase I and II complex models.

A refiner or importer electing early use of the complex model during 1995, 1996, or 1997 must determine individual refinery or importer performance standards for VOC, toxics, and NO_X. These standards are determined by evaluating the following slate of fuel parameter values in the Phase I complex model: The simple model requirements, per section 80.41(a) or (b), for benzene, RVP and oxygen; the aromatics value necessary to meet the simple model toxics standard using these values for benzene, RVP and oxygen; the refinery or importer individual baseline values for E–300, sulfur, and olefins; and the statutory summertime or wintertime baseline value for E–200.

The percent reductions in VOC, toxics, and NO_X emissions determined using the above fuel in the Phase I complex model are the reformulated gasoline standards for a refinery or importer electing early use of the complex model.

Beginning in 1998, the Phase I reformulated gasoline VOC, toxics, and NO_X standards for a refinery or importer are as specified in section 80.41 (c) and (d). As a result of the individual refinery or importer baselines under complex model early use, gasoline that is produced under this option at any specific refinery or imported by any specific importer, may not be fungibly mixed with gasoline that is produced at another refinery or imported by another importer. This segregation of early use complex model gasolines, and other segregation requirements, are discussed more fully below.

Refiners and importers may elect to meet certain reformulated gasoline standards either on a per-gallon basis or on average. This election, which must be made separately for each parameter and separately for each calendar year, applies to all gasoline produced at a refinery by a refiner, or imported by an importer, during a calendar year. Refiners and importers cannot meet the standard for any single parameter on a per-gallon basis for certain batches and on average for other batches during any calendar year.

A refiner or importer that opts for compliance on average must also meet requirements for gasoline quality surveys. Standards that may be met on average are RVP, oxygen, and benzene, and VOC, toxics, and NO_X emissions performance.

The purpose of the gasoline quality surveys is to ensure, for example, that RVP averaging by refiners or importers does not result in a covered area receiving reformulated gasoline that, on average over the covered area, has a higher RVP than would occur without such refiner or importer averaging. This applies for each parameter subject to refiner or importer averaging. In the event a gasoline quality survey reveals that the gasoline being used in a covered area does not meet the per-gallon standard for any regulated parameter, the per-gallon maximum or minimum standard for that parameter is made more rigorous, and except in the case of oxygen the standard for average compliance is made more rigorous. With certain limited exceptions, these adjusted standards apply to all gasoline produced at each refinery that supplied the covered area with the failed survey during the year of the survey failure, or during any year the adjusted standards apply. These gasoline quality survey requirements also apply to oxygenate blenders that meet the oxygen standard on average.

The final rule also includes other mechanisms to ensure that refiner or importer averaging will not result in a covered area receiving reformulated gasoline that, on average, is less "reformulated" than would occur absent such refiner or importer averaging. To meet this goal, EPA established standards for average compliance that are more rigorous than the standards for per-gallon compliance, and established the per-gallon maximums and minimums that apply to gasoline meeting the averaged standards. These maximums and minimums limit the range of averaging for the averaged standards, and the more stringent

averaged standards require refiners and importers to further reformulate their gasoline to meet these standards.

Refiners and importers may meet the averaged standards for oxygen and benzene through the exchange of credits. Credits are generated as a result of a refiner producing, or an importer importing, gasoline that on average exceeds the averaged standards for oxygen or benzene over the averaging period. An oxygenate blender using the averaged oxygen standard may generate, or use, oxygen credits.

The final rule specifies the manner in which credits must be used. Credits must be generated in the same averaging period as they are used—credits may not be banked for use in a later averaging period; all credit transfers must occur within fifteen days following the end of the averaging period in which they are generated; and only validly created credits may be used to achieve compliance.

The final rule constrains the use of the averaged standard for oxygen, and the use of oxygen credits in certain circumstances. Reformulated gasoline subject to simple model standards that is designated for use in the high ozone season—VOC-controlled reformulated gasoline—must meet both the oxygen standard and the RVP standard separately during the VOC control period (discussed more fully below). Simple model VOC-controlled gasoline may not be averaged with simple model non-VOC-controlled gasoline to show compliance with the oxygen standard during the VOC control period. In addition, reformulated gasoline designated for use in cities subject to the requirements of the oxygenated fuels program during the oxygenated fuels program control period (or "OPRG" gasoline) may not be averaged together with gasoline not designated for this use for purposes of meeting the oxygen standard on average.[40] As a result, only oxygen credits generated from VOC-controlled gasoline subject to simple model standards may be used to meet the separate oxygen standard for VOC-controlled gasoline; and oxygen credits generated from OPRG gasoline may only be used to meet the oxygen standard for OPRG gasoline. The mechanisms used to ensure correct accounting under these oxygen averaging and credit constraints are discussed in a separate section below.

The final rule also includes provisions that regulate the manner in which oxygenates may be added downstream of the refinery or import facility within the reformulated gasoline program. Oxygenate may only be added to specially formulated reformulated gasoline blendstock intended for such downstream oxygenate blending (or "RBOB"). If oxygenate were added to reformulated gasoline not specially formulated, in most cases the resulting gasoline would not meet the reformulated gasoline standards. Refiners and importers of RBOB are required to include in the RBOB product transfer documents the type and amount, or range of types and amounts, of oxygenate that may be blended with each particular RBOB. RBOB must be segregated from reformulated gasoline, and from other RBOB having different oxygenate requirements, to the point of oxygenate blending. Distributors may only dispense RBOB to registered oxygenate blenders. Oxygenate blenders may only blend the specified type and amount of oxygenate with any RBOB, and must meet the standard for oxygen for all RBOB dispensed to them.

Refiners and importers are required to meet the reformulated gasoline standards for RBOB for all parameters other than oxygen, based on the properties of the reformulated gasoline that will be produced through blending the appropriate type and amount of oxygenate with the RBOB. As a result, if the incorrect type and/or amount of oxygenate is blended with the RBOB, the refiner or importer may fail to comply with the non-oxygen standards.

In order to ensure that the non-oxygen standards for RBOB are met, refiners and importers may transfer RBOB only to oxygenate blenders with whom they have a first- or second-hand contractual relationship. This contract must include procedures intended to ensure proper performance of oxygenate blending. In addition, the refiner or importer must conduct a quality assurance program over the oxygenate blender's blending operation.

These constraints on the transfer of RBOB do not apply if a refiner or importer designates the RBOB as suitable for blending with any oxygenate or with ethers only,[41] and assumes that ethanol will be blended with "any-oxygenate" RBOB and MTBE will be blended with "ether-only" RBOB. A refiner or importer using this blending assumption option further assumes that the volume of oxygenate blended will be that amount necessary for the resulting reformulated gasoline to have an oxygen content of 2.00 weight percent, or approximately 5.70 volume percent in the case of ethanol, and approximately 10.80 volume percent in the case of MTBE. These oxygenate blending assumptions are discussed more fully below.

In order to ensure that gasoline produced or imported as reformulated in fact meets the reformulated gasoline standards, refiners and importers are required to engage an independent laboratory to sample each batch of reformulated gasoline produced or imported, and to analyze up to ten percent of the samples collected. EPA will direct the independent laboratories as to which samples to analyze. Refiners producing gasoline using computer-controlled in-line blending may obtain a waiver from EPA and have the in-line blending records audited in lieu of the independent sampling and testing requirements. The independent sampling and testing requirement is discussed more fully below.

Under the final rule, refiners, importers, and oxygenate blenders are required to keep specified records that relate to the production or importation of gasoline, sampling and testing of gasoline, credit transfers, and compliance calculations. All regulated parties are required to keep copies of product transfer documents, and records of any quality assurance sampling and testing performed.

Refiners, importers, and oxygenate blenders are required to submit reports to EPA that contain information necessary to demonstrate that standards have been achieved either per-gallon or on average. The periods for reporting are calendar quarters (January through March, April through June, July through September and October through December). The quarterly reports are due on the last day of the second month following the end of the quarter.

Quarterly reports consist of detailed information describing each batch of reformulated gasoline or RBOB produced or imported. Additional reporting requirements apply for refiners, importers, and oxygenate blenders who produce reformulated gasoline or RBOB which meets any of the applicable standards on average. RVP, VOC, and NO_X averaging reports are submitted with the third quarterly report of a given year and cover the high ozone season averaging period. Oxygen, benzene and toxics averaging reports and credit transaction reports are submitted with the fourth quarterly report and cover the annual averaging period. Credit transaction and averaging reports are not required for reformulated gasoline or RBOB which meets all of the

[40] The oxygenated fuels program refers to state programs established pursuant to § 211(m) of the Act, involving wintertime use of oxygenated gasoline to control emissions of carbon monoxide.

[41] The ethers include but are not limited to MTBE, TAME, and ETBE.

applicable standards on a per-gallon basis.

Refiners, oxygenate blenders, and importers are required to register with EPA by November 1, 1994 or no later than three months in advance of the first date the party will produce or import reformulated gasoline, whichever is later. Registration information identifies the refiner, blender, or importer and any facilities at which reformulated gasoline or RBOB may be produced, and the independent laboratory that will be used to fulfill the independent analysis requirements. EPA will supply a registration number to each refiner, importer, and oxygenate blender, and a facility registration number for each refinery and oxygenate blending facility that is identified; these registration numbers must be used in all reports to EPA.

The final rule includes a requirement that all refiners, importers, and oxygenate blenders must commission an annual review of the information contained in the reports to EPA, or an "attest engagement." Attest engagements must be conducted either by a Certified Public Accountant, or by a Certified Internal Auditor, following procedures included in the final rule. The attest procedures are intended to ensure that all gasoline produced or imported is included in the reports for either reformulated gasoline or conventional gasoline; that product transfer documents are properly prepared; that the requirements for downstream oxygenate blending are met; and that in the case of a refiner using computer-controlled in-line blending, that the blend records support the reported properties of the gasoline produced.

All parties in the gasoline distribution system are required to segregate certain categories of reformulated gasoline from other categories. These segregation requirements result primarily from the time and place of use restrictions necessary for reformulated gasoline, and to a lesser extent are necessary for per-gallon minimums and maximums and gasoline quality surveys in covered areas. In summary form, the segregation requirements are the following.

Gasoline subject to simple model standards may not be fungibly mixed with gasoline subject to complex model standards. In addition, gasoline produced at any refinery or imported by any importer that is subject to the complex model before 1998 must be segregated from complex model gasoline produced at any other refinery or imported by any other importer. These two segregation requirements, which are limited to the period 1995 through 1997, are necessary in order for per-gallon minimums and maximums and gasoline quality surveys to properly function.

Only gasoline that is VOC-controlled may be used during the high ozone season, which requires the segregation of VOC-controlled and non-VOC-controlled gasoline in advance of the high ozone season (other than to "blend up" storage tanks to the VOC-controlled standards). Similarly, only gasoline designated for VOC Control Region 1 may be sold in that region, which requires the segregation of VOC Control Region 1 gasoline from VOC Control Region 2 gasoline. In addition, VOC-controlled gasoline produced with ethanol may not be mixed with VOC-controlled gasoline produced using any other oxygenate during the period January 1 through September 15. These segregation requirements are necessary in order for VOC emission reductions to be achieved.

Lastly, only gasoline designated as oxygenated fuels program reformulated gasoline (OPRG) may be sold in an oxygenated fuels program area during the oxygenated fuels control period, which requires the segregation of OPRG gasoline from non-OPRG gasoline in advance of any oxygenated fuels control period (other than to "blend up" storage tanks). This segregation requirement is necessary so that the extra oxygenate used in oxygenated fuels program cities does not, through averaging, result in non-oxygenate fuels program cities receiving less oxygen than is required under the Clean Air Act.

The final rule establishes liability for a number of prohibited activities that may occur downstream of the refinery or importer, including the following: The sale, dispensation, transportation, or storage of conventional gasoline represented to be reformulated; the failure of reformulated gasoline to meet the minimum or maximum standards; and the use of reformulated gasoline in a manner inconsistent with the time and place of use restrictions recited in the product transfer documents. When such a violation is found, the following parties are presumed liable: The operator of the facility at which the violating gasoline is found, and each upstream party, other than carriers, that supplied any of the gasoline found to be in violation. In the case of a facility operating under the brand name of a refiner, that refiner is also presumed liable regardless of whether the refiner supplied any of the gasoline found in violation.

A party presumed liable may establish an affirmative defense by showing that it did not cause the violation, that the party's product transfer documents were proper, and that the party carried out a quality assurance program to monitor the per-gallon minimum and maximum standards of the gasoline under the party's control.

A more detailed description of the liability and defense provisions relating to carriers is included below.

The final rule specifies the manner in which penalties will be determined for violations of the final rule. These penalty provisions include calculations of the number of days of violation, and presumptions regarding the properties of gasoline.

The remainder of Section V of the preamble discusses major changes from the enforcement provisions that were proposed in the supplemental notice of proposed rulemaking published at 58 FR 11722 (February 26, 1993). The following portion of this section also responds to a number of significant public comments on the enforcement provisions contained in the 1993 proposal. Responses to other significant comments EPA received are contained in a separate "response to comments" document that has been placed in the docket for this rulemaking.

A. California Enforcement Exemption

In the February 26, 1993, notice of proposed rulemaking (NPRM), EPA proposed to exempt refiners, importers and blenders of "California gasoline" from certain enforcement provisions in the proposed federal reformulated gasoline regulations. The Agency generally proposed that "California gasoline" would mean gasoline subject to the State of California's reformulated gasoline regulations that was either produced within the State or imported into the State from outside the United States.

The proposed California enforcement exemptions were based on the Agency's comparison of the estimated emission reduction benefits of California's Phase 2 reformulated gasoline program with those anticipated from the federal phase I reformulated gasoline program, using the federal complex model proposed in the NPRM. The California Phase 2 program establishes standards for eight gasoline characteristics—sulfur, benzene, olefin, aromatic hydrocarbons, oxygen, RVP, T50 and T90—applicable starting March 1, 1996. EPA's analysis indicated that California Phase 2 gasoline will have a greater emission reduction benefit than federal reformulated gasoline. This analysis also indicated that, in the case of VOC, toxic and NO_X emissions performance, California Phase 2 gasoline has a greater emissions performance reduction than federal phase I gasoline, compared to

Clean Air Act base gasoline. EPA's review also indicated that the California oxygen "flat limit" of 1.8 to 2.2% will in practice be equivalent to the 2.0% minimum oxygen content required by the Act. See 58 FR 11746–7 (February 26, 1993).

The Agency proposed that, effective with the start of California's Phase 2 program, regulated parties would be exempt from meeting the enforcement requirements dealing with compliance surveys (section 80.69), independent sampling and testing (section 80.70(c)), designation of gasoline (section 80.70(d)), marking of conventional gasoline (section 80.70(g)), downstream oxygenate blending (section 80.72), record keeping (section 80.74), reporting (section 80.75), product transfer documents (section 80.77), and antidumping record keeping (section 80.105) and reporting (section 80.106).[42] Between the January 1, 1995, start of the federal program and the March 1, 1996, start of the California Phase 2 program, EPA proposed a more limited set of exemptions from federal enforcement requirements, specifically the compliance survey and independent sampling and testing requirements (sections 80.69 and 80.70(c), respectively).

The Agency also proposed a number of restrictions on the applicability of the California enforcement exemptions. First, the exemptions would not apply to gasoline sold in California and produced at a refinery located within the United States but outside California. Similarly, the exemptions would not apply to gasoline produced in California but sold outside that State. Second, the exemptions would not apply to gasoline produced under a two-year (March 1, 1996, through February 29, 1996) extension granted to small refiners under the California regulations. Third, the exemptions would become null and void (i.e., they would not apply to any California regulated party) if any gasoline formulation certified by the State using a predictive model or vehicle testing does not comply with the federal reformulated gasoline standards. Fourth, the enforcement exemptions would cease to apply to a party granted a variance by California unless EPA granted relief for extraordinary circumstances under section 80.73 of the federal regulations. Fifth, a regulated party that is assessed a penalty for a violation of either the California or federal reformulated gasoline requirements would lose its enforcement exemptions. (Such a party could petition the Agency for relief from this result, for good cause.) Sixth, the California enforcement exemptions would apply only during the time that the federal phase I program remains in effect (i.e., until the year 2000), subject to extension in a later rulemaking.

The February 26, 1993, NPRM contains a more detailed discussion of the California reformulated gasoline program, the Agency's comparison of the emission reduction benefits of the California and federal programs, and the proposed California enforcement exemption provisions. That notice also includes a detailed rationale for the proposed exemptions and restrictions. See 58 FR 11747–11750.

The Agency received several comments on the proposed California enforcement exemptions, all of which were generally supportive of the regulation. Most of these comments also suggested various modifications and clarifications of the proposed regulations. In this final rule the Agency is promulgating a revised version of the California enforcement exemptions regulation, which includes many of the modifications recommended by commenters.[43] A detailed discussion of these comments, the Agency's responses to these comments, and the modifications made to the proposed rule is contained in a separate "Responses to Comments" document. The following is a summary of the more significant changes made to the proposed rule:

The proposed exclusion from the enforcement exemptions of small refiners who are granted a two-year extension under the California program has been dropped from the final rule. The Agency has determined that the emissions performance of fuels meeting the California reformulated gasoline standards to which these refiners will be subject during the two-year period, in conjunction with the statewide California sulfur standard, meets or exceeds the performance required under the Phase I federal reformulated gasoline program, as measured by the complex model (which may be used to determine compliance with federal standards during this period[44]). An analysis of these standards has been placed in the rulemaking docket.

The enforcement exemptions have been extended to California reformulated gasoline produced at refineries located outside of California that produce only California reformulated gasoline and federal conventional gasoline (i.e., that do not produce federal reformulated gasoline). The primary rationale for excluding such gasoline, that its producer would be required to implement all of the federal enforcement provisions for a refinery's non-California reformulated gasoline, is not applicable to facilities that do not produce federal reformulated gasoline. In order to assure that such gasoline is in fact shipped to, and sold in, California, section 80.81(g) of the final regulations now prescribes transfer documentation and record keeping requirements for such gasoline.

The compliance survey exemption is extended to all gasoline subject to the California reformulated gasoline regulations (no matter where produced) and will not be lost by a party who otherwise loses its California enforcement exemptions (e.g., a refiner who violates federal or state reformulated gasoline regulations or whose gasoline formulation is found to be less stringent than the federal requirements). The purpose of compliance surveys is to ensure that each area receiving reformulated gasoline receives gasoline that, on average, achieves the performance that would be expected if per-gallon compliance was the only available compliance option. The Agency believes that there would be little purpose served in imposing this requirement on only a small subset of the gasoline sold in California.

Exemptions from the following enforcement provisions have been added in the final rule: the parameter value reconciliation requirements in section 80.65(e)(2); the reformulated gasoline and RBOB compliance requirements in section 80.65(c); the annual compliance audit requirements in section 80.65(h); and the compliance attest engagement requirements in subpart F. The Agency believes that these exemptions are consistent with the rationale for the exemptions proposed in the NPRM.

[42] The numbering of many provisions in the proposed regulations has been changed in the final rules. For example, proposed § 80.69 is now § 80.68, proposed § 80.70(c) is now § 80.65(f), proposed § 80.70(d) is now § 80.65(d), proposed § 80.70(g) is now § 80.65(g), and proposed § 80.72 is now § 80.69. Cross-references in the final California enforcement exemption regulation have been revised to reflect these and other numbering changes in the final reformulated gasoline regulations.

[43] The Agency has re-analyzed the relative emission reduction benefits of the California Phase II reformulated gasoline program and the federal Phase I program, using the complex model being promulgated today, and has again concluded that the California program is at least as stringent as the federal program. The analysis also found that fuel meeting the standards of the California Phase II program has a greater VOC, NO_x and toxic performance reduction than fuel meeting the federal reformulated gasoline Phase I standards. A copy of this analysis has been placed in the rulemaking docket.

[44] Use of the complex model is optional until the end of 1997, and mandatory thereafter.

The provision related to withdrawal of the enforcement exemptions on the basis of certification by California of a gasoline formulation that does not meet the federal reformulated gasoline standards has been modified in several ways. First and most importantly, the withdrawal will only apply to the refiner, importer or blender of the non-complying formulation, not to all California gasoline. Second, any party whose gasoline is certified under either the predictive model or vehicle testing provisions of the California regulations will be required to notify the Agency within 30 days of such a certification and to submit a written demonstration that the gasoline formulation is in compliance with federal standards. If such a demonstration is not timely submitted, the exemptions are automatically (and immediately) lost. If a submitted demonstration is determined to be incorrect by the Agency, EPA will notify the party (by first-class mail) [45] that its enforcement exemptions will expire on a certain date. Third, the date on which these exemptions will expire has been extended to no earlier than 90 days from the date of the EPA notice, to provide additional time for compliance. The Agency believes that this additional time is needed to comply with all of the many enforcement requirements that will become applicable if a California exemption is lost. In particular, requirements such as the independent analysis requirements (section 80.65(f)) and the compliance attest engagement requirements (subpart F) may require the negotiation of contracts with third parties.

The effective date for the withdrawal of the enforcement exemptions on the basis of a reformulated gasoline penalty assessment has been extended to 90 days, and this provision has been revised to make clear that this grace period does not begin until any interim administrative appeal has been completed. Once a final penalty assessment has been made by an agency or a district court, the 90-day period will begin.

The provision related to compliance with standards on average for an averaging period that is partly before and partly after March 1, 1996, has been clarified. Under the final rule, producers and importers who elect to demonstrate compliance on average with any federal reformulated gasoline standard [46] will be required to demonstrate such compliance for two overlapping averaging periods: January 1, 1995, through December 31, 1995; and March 1, 1995, through February 29, 1996. The proposal could have been interpreted to require compliance with these standards for a two-month averaging period in early 1996, which would be very difficult for refiners to meet on average and which was not intended by the Agency.

The provision intended to prohibit the averaging of "very clean" California reformulated gasoline with "less clean" federal reformulated gasoline has been clarified in the final rule. In addition, it has been made applicable to producers and importers of all gasoline subject to the California program, not just to refiners and importers located outside the State (as was proposed). Section 80.81(d) now provides that producers and importers of such gasoline must exclude the volume and properties of California reformulated gasoline from all conventional gasoline and federal reformulated gasoline sold elsewhere, for purposes of demonstrating compliance with standards specified in section 80.41 and 80.90. An overall demonstration of compliance for all gasoline (California and non-California) produced or imported is also still required.

The exemption from the federal recordkeeping requirements has been modified to require the retention for five years of records mandated by section 2270 of the California reformulated gasoline regulations (which require retention for two years). This requirement, along with other enforcement provisions for which an exemption is not being provided, will provide the Agency with the capability of performing audits of compliance with federal requirements by parties who produce California reformulated gasoline.

As noted above, more detailed information on the modifications made to the proposed rule and the comments on which they are based is contained in the separate "Responses to Comments" document. That document also responds to comments that did not result in changes to the proposed rule.

[45] Because the loss of the enforcement exemption will apply to only a single party (rather than to all producers and importers of California gasoline), the Agency does not believe that there is a need for a **Federal Register** notice announcing a determination of non-compliance (as proposed in the NPRM) and has deleted this provision from the final rule.

[46] In the case of refiners and importers using the simple model, the standards that may be met on average are the RVP, benzene, oxygen, and toxics emissions performance standards. For parties using the complex model, the standards that may be met on average are the benzene, oxygen, and toxics and VOC emissions performance standards.

B. Testing Methods and Testing Tolerances

The final rule, in section 80.46, sets forth test methods regarding reformulated gasoline parameters. EPA has carefully considered all comments concerning proposed test methods and related issues and many of those comments have been incorporated in the final rule. The test methods are those that provide for the best balance of accuracy, cost effectiveness and ease of use for competent lab technicians. The final rule generally provides for one regulatory method for each parameter in order to assure accuracy and to avoid problems with biases between different methods. However, in two cases (regarding oxygen and aromatics) the regulation provides for an alternative method for industry to use, if desired, until January 1, 1997, to provide lead time to acquire equipment necessary for the primary test method and to become familiar with its use. Where American Society of Testing and Materials (ASTM) methods have been adopted, any future updated version of the ASTM methods will not automatically be adopted. EPA will use appropriate procedures if it desires to adopt any updated methods.

1. Test Methodology Overview

EPA proposed test methods for the measurement of each of the parameters required in the creation of reformulated gasoline, and received numerous comments regarding the proposed methods. Most of the comments were quite similar in their overall character. However, one commenter seemed to summarize the prevailing recommendations quite well. API stated in part: "API recommends that EPA observe the following guiding principles regarding laboratory test methods: (1) *Test methods must be proven.* . . . (2) *Test methods must be reliable.* . . . (3) *Test procedures must be suitable for refinery personnel.* . . . (4) *Test methods must not be unnecessarily costly.* . . . (5) *Test method reproducibility must be recognized.* . . . (6) *Criteria for adoption of other methods should be developed.* . . ."

EPA agrees with most of these criteria. It would be ideal to discover accurate test methods that have been proven reliable in the industry, that are easy for personnel to operate and have a minimal cost. The new test method for Reid Vapor Pressure (RVP) set forth in the volatility regulations (40 CFR part 80, appendix E, Method 3) is an example of such a method that is accurate, easy to operate and is

relatively inexpensive. These qualities in the RVP test method have enabled many downstream parties to incorporate this method into their oversight program under the volatility rule. EPA believes this improved oversight contributed significantly to the reduction in volatility violations during the 1993 high ozone season. Ease of operation and cost were considered when EPA adopted this test method. However, it must be recognized that the most important factors in the choice of the new RVP test method were its accuracy and precision.

EPA would like to prescribe test methods that conform to API's criteria. However, EPA's leading priority must remain precision and accuracy, even at the expense of other criteria. EPA is always willing to cooperate with industry to investigate the possibility of easier and less expensive methods if the methods also are accurate and precise. To do so not only aids industry, but also ultimately assists EPA's purpose of preventing violations.

EPA must follow its policy in maintaining precision and accuracy with regard to any enforcement test tolerances as well. EPA is determined to achieve the most accurate and precise result that is practical. EPA's purpose in testing is to ensure relevant standards are being met, and to allow an enforcement action where EPA is able to establish a violation with reasonable certainty. However, EPA does not have sufficient data at this time from the EPA laboratory to determine the most precise test tolerances. Interim test tolerances have been established until that data becomes available. Enforcement test tolerances are discussed more fully below.

Most commenters requested that EPA allow more than one test method for each parameter. The final rule provides for one regulatory method for each parameter in order to assure accuracy and to avoid problems of bias between different methods. Refiners and importers must use the regulatory method, or an alternative method in the case of two parameters during a limited time period, when testing to meet the mandatory testing requirements of section 80.65(e). In addition, independent laboratories, when conducting tests to verify the accuracy of the refiner and importer testing, must use the regulatory method. EPA has learned from its experience with other motor vehicle fuel regulatory programs, notably volatility, that it is preferable to have one regulatory testing method as opposed to multiple regulatory test methods for each parameter because of the potential for conflicting results among methods due to bias. However, in two cases, oxygen and aromatics, where the test methods are relatively new, the regulation provides for optional alternative methods for refiners and importers to use to meet the testing requirements of section 80.65(e) until January 1, 1997, providing lead-time for industry to acquire equipment and to become familiar with use of the regulatory methods. Of course, these alternative methods can likewise be used at any time for defense purposes as long as there is correlation with the regulatory methods.

2. Test Methods Under Section 80.46

a. *Reid vapor pressure (RVP).* EPA proposed to use the ASTM method ES–15 or the procedure described in 40 CFR part 80, appendices D and E. Comments favored the use of ASTM ES–15. However, it was noted that ES–15 is a temporary emergency ASTM standard and will expire shortly. ASTM D–5191 is the permanent standard. It was also noted that this method is suitable for oxygenated blends.

Commenters requested that EPA also allow the two dry methods set forth in appendices D and E in 40 CFR part 80. These methods are the manual tank and gauge method, the Herzog analog method, and the Herzog digital method. In addition, a request was made to include the ASTM D–5190 method, an alternative mini method.

EPA has decided that RVP must be determined in accordance with the method in 40 CFR part 80, appendix E, Method 3. This method, very similar to ASTM D–5191, clearly complies with many of the criteria espoused by API. The method is simple and inexpensive. Industry has already begun to gear up for this method because of its use in the Phase II Volatility regulations. It is appropriate to use the same RVP test method for the volatility and reformulated gasoline programs to prevent confusion and inconsistencies.

EPA has decided that the method in 40 CFR part 80, appendix E, Method 3 will be the only regulatory volatility test method. As with the volatility rule, other methods may be used for defense purposes as long as the method used is properly correlated with the regulatory method. (40 CFR part 80, appendix E, Method 3, Paragraph 9.4). See, 58 FR 14476 (March 17, 1993) for a more thorough discussion regarding the choice of a single volatility test method.

b. *Distillations.* EPA proposed to use the ASTM method D–86–82 as the regulatory test method, and comments were favorable with regard to this method. It was noted, however, that the method was updated in November 1990. This most recent revision of this method is ASTM D–86–90. One commenter requested that the language be more specific. Another commenter suggested that a newer method, D–3710, which is a gas chromatography method, be used. A notation was also made that the repeatability and reproducibility figures in degrees Fahrenheit in the ASTM method D–86–90 were incorrect.

EPA has decided that the distillation parameters must be determined in accordance with the ASTM method D–86–90. The regulatory language has been amended to state that the figures for repeatability and reproducibility given in degrees Fahrenheit in Table 9 in the ASTM method are incorrect, and may not be used. As with all the parameters, there will be only one regulatory distillation test method. However, other suitable methods may be used for defense purposes (but not to meet mandatory testing requirements) as long as they are properly correlated with the regulatory test method. EPA is always interested in the development of alternative methods if they are as accurate and precise as the regulatory test method. Many of the parameters in reformulated gasoline can be measured by a gas chromatograph with an appropriate detector. For this reason, it might be appropriate to explore the development of the D–3710 method or some alternative gas chromatographic method with an appropriate detector for future use as the distillation test method.

c. *Benzene.* EPA proposed to use ASTM method D–3606 for the regulatory test method, and most commenters were in agreement with the use of this method. However, commenters noted that other acceptable gas chromatographic methods exist for the determination of benzene such as D–4815 (a gasoline oxygenate method) and D–4420 (an aromatics method). Comments were made that D–3606 requires a dedicated chromatograph for benzene in gasoline only. It was also noted that the D–3606 results may be affected by interference from the presence of ethanol and methanol.

EPA has decided that the single regulatory method for measuring concentration of benzene will be ASTM method D–3606–92. Due to the possibility of a slight interference from ethanol and methanol in the test results, the method has been amended by the regulation to require that the instrument parameters be adjusted to ensure complete resolution of the benzene, ethanol and methanol peaks. As with all reformulated gasoline parameters, EPA has chosen one regulatory test method. However, it should be noted that the

presence of benzene can be tested also by the GC–MS, the regulatory method for aromatics testing. With the GC–MS, there should not be a problem with the presence of oxygenates and a dedicated chromatograph is not needed. EPA is interested in the possibility of participating with industry in the development of the GC–MS method for benzene.

d. *Aromatics.* EPA proposed to use the Gas Chromatograph-Mass Spectrometry (GC–MS) method, developed by EPA, for total aromatics determination.

Most commenters opposed the method proposed by EPA. One commenter recommended delaying selection of a lab test method until the procedure can be evaluated and completely developed. Commenters also criticized the method for its cost, the amount of time the method demands, and because industry feels that the method will require highly specialized staff. One commenter stated that the proposed method was so incomplete that it was not possible to provide detailed technical comments on it. Most commenters suggested that EPA adopt ASTM method D–1319, a fluorescent indicator absorption method.

EPA has decided to adopt the proposed method, the GC–MS, as the single regulatory method for the determination of total aromatics. However, because the method is relatively new, leaving industry little time to scrutinize the method, the final regulations allow use of ASTM method D–1319–93 until January 1, 1997 for purposes of meeting the industry testing requirements under section 80.65(e), provided this method is correlated with the GC–MS method. This two year transition period should allow sufficient time for industry to purchase equipment and become familiar with the new method. In addition, during this time period, it is anticipated that EPA and industry can discuss any problems that might arise as a result of the new method being promulgated. Moreover, the GC–MS method has been rewritten to provide more detail and specificity.

EPA is aware that industry is uncomfortable with a newly developed method that has not had the usual round-robin testing or extensive participation by ASTM. However, EPA believes that the method available, D–1319, is so archaic when compared with present day technology, and has such extremely poor accuracy and precision, that it is necessary to develop a new method. Furthermore, D–1319 has not been proven effective with oxygenated fuels even though the updated version does include a multiplication factor to use when oxygenates are present. EPA also believes that it does not have the choice of leaving the method open until the GC–MS could be evaluated more thoroughly given the timing of the final rule. EPA believes the GC–MS is a dependable, accurate and precise method that, with the aid of industry, can be applied in the near future to many of the other reformulated gasoline parameters. The eventual use for several parameters should somewhat offset the initial cost. EPA also believes, based on personal experience, that the GC–MS apparatus is readily usable by competent lab technicians with about one week of training. It is less personnel-intensive and more accurate than the D–1319 method.

e. *Oxygen and Oxygenates.* EPA proposed to use the GC-Oxygenate Flame Ionization Detector (OFID) method for determining oxygen content. Many commenters objected to the OFID method due to the fact that ASTM is still reviewing it through round-robin testing and precision information is not presently known. Commenters were concerned with the laboratory time required and the high deterioration and replacement rate cost of the cracker reactor. Commenters were also concerned with possible increased down-time in the laboratory. Most commenters suggested that ASTM method D–4815, a method used by industry during the winter oxygenate season, be used for testing oxygenates. Some commenters also suggested the use of portable Infrared (IR) analyzers because of their low cost and rapid results.

EPA has chosen to use the GC–OFID method as the single regulatory method for measuring oxygen content and oxygenates. As with the aromatics determination, EPA felt compelled to develop a new method given the shortcomings of the methods presently available. However, the ASTM method D–4815–93 can be used for the compounds specified in the method until January 1, 1997 to meet industry testing requirements under section 80.65(e). ASTM method D–4815 has been used for quite some time, but with the addition of heavier oxygenates, D–4815 has become increasingly difficult to use. EPA is aware that there has been an attempt to expand the scope and range of D–4815 to include heavier oxygenates (as set forth in D–4815–93). However, the longer one has to wait to extract the heavier oxygenates, the more likely it is that hydrocarbons will be drawn out with the oxygenates, interfering with the test results. In addition, EPA is not satisfied with the accuracy of D–4815. The reproducibility and repeatability factors are quite large. Presently, OFID is the only accurate method known that is capable of testing for oxygenates at all ranges. EPA believes a reliable, accurate and precise method that is capable of testing for oxygenates at all ranges is required when the reformulated gasoline requirements go into effect.

EPA has been using GC–OFID for four years. During that period, the cracker reactor has required replacement on only one occasion. EPA has had the opportunity to use various portable IR methods for field screening tests and has been pleased with the results. However, although these are excellent screening devices, they are not presently at the stage of development that would allow their use as a regulatory enforcement method.

f. *Sulfur.* EPA proposed to use an inductively coupled plasma atomic emission spectrometer (ICP–AES) method for sulfur analysis that was developed at EPA's laboratory. Most commenters were opposed to this method because it is an unproven technology, because it is very expensive, and because there are no substantial benefits received from this technology that are not also available through existing methods. It was also thought not to be practical in a refinery environment. Commenters suggested the use of ASTM D–4045, ASTM D–2622, or ASTM D–4294.

After considering the comments, EPA has chosen ASTM D–2622–92, an x-ray spectrometry method, as the regulatory sulfur test method. This is a newer version of the same test method that is used for testing sulfur in the low sulfur diesel fuel program. Industry should already be on-line with this method since the diesel program went into effect on October 1, 1993. The newer version has correction factors to adjust for the interference from oxygenated product.

g. *Olefins.* EPA proposed to use the ASTM method D–1319–88 to determine olefin content. Most commenters were in favor of this method since there are no other standard methods for olefins from which to choose at this time. Most commenters pointed out that the method is not as accurate as it should be. Comments were made that the method was updated in 1989 (D–1319–89). Comments were made that the method would not detect any oxygenates present, but that the results can be normalized to determine the amount of oxygen present using multiplications factors.

EPA has chosen the ASTM method D–1319–93, Fluorescent Indicator Absorption method (FIA) as the single regulatory method to determine olefin

content. EPA has chosen this method because there are no alternative methods available. EPA believes that an accuracy greater than is possible with the D–1319 method is desirable and looks forward to working with industry to develop a suitable GC–MS method to detect olefins in the near future. The newest version, ASTM D–1319–93, was chosen because it contains multiplication factors to determine the amount of oxygen present.

3. Enforcement Test Tolerances

EPA has chosen to set forth enforcement test tolerances in the preamble of this regulation for oxygen, benzene, and RVP, the three parameters that will be subject to enforcement testing for minimum and/or maximum levels under the simple model.

Commenters suggested that EPA should set enforcement test tolerances for all seven parameters. One commenter stated the belief that EPA is required by the Clean Air Act to set enforcement test tolerances. Many commenters requested enforcement leniency downstream so that pipelines, while attempting to stay in compliance, do not force refiners to produce reformulated gasoline at even lower specifications than the regulations require.

a. *Issues Regarding Whether Enforcement Test Tolerances Are Required.* There are three specific provisions in the section 211(k) that refer to establishing test tolerances. The first, section 211(k)(3)(A), establishes a formula fuel as the statutory minimum for VOC and toxic emissions reductions, if the formula fuel is more stringent than the performance standards found in section 211(k)(3)(B). The formula includes a minimum oxygen content of 2.0 wt. % "subject to a testing tolerance established by the Administrator." This provision is inapplicable, however, as EPA has determined that the performance standards in section 211(k)(3)(B) are more stringent than the formula fuel.

Second, section 211(k)(4)(C) of the Act requires that EPA establish "appropriate measures of, and methodology for, ascertaining the emissions of air pollutants (including calculations, equipment, and testing tolerances)." This provision addresses technical issues regarding measurement or determination of emissions of various air pollutants, and does not require that EPA establish enforcement test tolerances. Congress most likely expected that individual vehicle testing by refiners, importers, and EPA would be the basis for quantifying the emissions reductions from reformulated gasolines, with certification of reformulated gasoline based on such individual test programs.[47] In using a large data base from several vehicle test programs EPA has exercised the authority provided under this provision, and has established emissions models that are much more accurate and reliable predictors of emissions performance than individual vehicle test programs. Variability in test results was accounted for in the modeling process itself, so that the models include a "test tolerance" based on averaging of test results from the vehicle test programs underlying the emissions models.

EPA has established appropriate test procedures for use with the model, but they measure not air pollution emissions but fuel parameter values needed to operate the model. 40 CFR 80.46. EPA has, however, established test tolerances to determine when fuel parameter values are acceptable for use in the model, as well as limits on the range of the parameters for the model. Where a refiner or importer seeks to augment the emissions model through a vehicle test program, EPA's regulations also include provisions on testing and calculations, and account for test tolerances through the averaging of vehicle test results. EPA believes these fully implement any requirement to establish test tolerances in a context where an emissions model is the methodology to determine air pollutant emissions.

Some commenters point to language of various legislators made during the floor debate on the Clean Air Act Amendments of 1990. In the floor debate, various Congressmen made general statements on the issue of whether EPA must provide enforcement tolerances under section 211(k)(4)(C).[48] There is no clear indication in these statements that Congress intended in section 211(k)(4)(C) to mandate changes in the numerical standards adopted by EPA, or to mandate a regulatory exercise of enforcement discretion. Instead these floor debate statements are most reasonably read as indicating that EPA should establish reasonable testing tolerances in the procedures and methodologies adopted to quantify air pollutants for the reformulated gasoline and anti-dumping programs, so that the regulated community and EPA can measure these air pollutants in a workable, verifiable manner without undue cost. EPA believes that its regulations fully implement this objective. To the extent these statements during the floor debate are read to imply that "testing tolerances" should be interpreted the same for purposes of section 211(k)(2)(B) and 211(k)(4)(C), EPA respectfully rejects this interpretation as contrary to the intent of Congress as expressed in the language of the Act. Furthermore, floor debate quotes are not authoritative as to the meaning of the Act, especially where such statements are contrary to the language of the Act itself.

The third relevant statutory provision is section 211(k)(2)(B). There Congress tied the testing tolerance requirement to the level of the standard itself. This provision establishes a minimum oxygen content requirement for the reformulated gasoline of "2.0 percent by weight (subject to a testing tolerance established by the Administrator)". Unlike section 211(k)(4)(C), which addresses technical issues regarding measurement of air pollutants, this provision addresses the level of the standard itself and compliance with the oxygen content requirement. EPA interprets this as requiring establishment of a reasonable testing tolerance for the oxygen content requirement. As in the winter time oxygenated gasoline program, EPA is establishing this tolerance as 0.30 wt.% oxygen. Unlike section 211(k)(4)(C), there is no explicit requirement that this tolerance be incorporated into the regulations, and given the nature of an enforcement testing tolerance EPA is not adopting it as a rule.

b. *The discretionary nature of enforcement test tolerances.* As discussed above, enforcement test tolerances are not required by the Act except for oxygenate testing pursuant to section 211(k)(2)(B), and even there, Congress left to EPA's discretion at what

[47] While Congress apparently expected that EPA would in all likelihood establish a vehicle testing program to measure emissions and certify reformulated gasoline, EPA has instead adopted an emission model that is built on many different test programs. To the extent "calculations, equipment, and testing tolerances" is still relevant in this context, it is taken to address testing needed to use the model, such as testing of a gasoline to obtain data for input into the model. The test procedures adopted by EPA typically include provisions designed to address test variability. In addition EPA's regulations specify test tolerances for various parameters, such as when a refiner and an outside laboratory measure the fuels parameters, and specify the acceptable range for such parameters in using the model.

[48] See, e.g., statement by Congressman Hall at 136 Cong. Rec. H12901 (October 26, 1990.) "A reasonable testing tolerance is expressly provided for oxygen in new 211(k)(2)(B). Under 211(k)(4)(C), EPA must also establish reasonable testing tolerances for all other aspects of this program, to minimize cost and make it workable and verifiable in the real world. EPA is specifically expected to promptly establish such tolerance limits. Similar reasonable tolerances are intended for the CO program in 211(m)."

level such tolerance should be set as well as any criteria EPA would use. EPA has carefully considered the many comments regarding test tolerances. Any test tolerance would involve establishing a policy that the Agency would forego an enforcement action unless, in testing an enforcement sample, EPA found that a standard was exceeded by a set amount. Other appropriate conditions could also be required, such as evidence that the regulated party conducted appropriate sampling and testing. Establishing an enforcement tolerance based on testing or any other factor is a matter solely within the Agency's enforcement discretion, and is not addressed by section 211(k), except for purposes of the oxygen content requirements of section 211(k)(2)(B). As described below, EPA has decided to announce its current position on enforcement test tolerances with respect to several of the emission and content standards specified for reformulated gasoline subject to the simple model.

EPA is aware that as a result of the gasoline volatility regulations at 40 CFR 80.27–28, many pipelines only accept gasoline which tests below the RVP standard minus a margin of safety set by the pipelines. In some cases, the margin of safety set by the pipelines is equal to the reproducibility of the RVP test method. Many commenters expressed concern that a similar pipeline policy also would apply to the reformulated gasoline maximum/minimum parameters. Likewise, EPA is concerned about downstream parties who have limited control over the quality of the product received. For example, gasoline in the custody of a pipeline or terminal may be the product of several commingled refinery shipments. In light of these concerns, EPA intends to withhold prosecution of downstream parties such as pipelines and terminals, where proper sampling and testing by the downstream party shows that the product exceeds standard but tests within the tolerance set by EPA, and where there is no reason to believe that the party caused the gasoline to exceed the standard.

4. Enforcement Test Tolerance Values

Almost every commenter suggested that EPA use reproducibility for enforcement tolerances. Commenters suggested that because the comparison of test results from different laboratories is inevitable, it is necessary to incorporate an appropriate measure of the variability between laboratories.

EPA has decided in its discretion to adopt enforcement test tolerances for certain requirements in addition to oxygen content. As discussed above, the Clean Air Act does not require enforcement testing tolerances for the six reformulated gasoline parameters other than oxygen (i.e., RVP, distillations, benzene, aromatics, sulfur, and olefins). In addition, only three fuel parameters (RVP, oxygen, and benzene) have maximum and/or minimum standards under the simple model. Therefore, these simple model parameters are the only ones likely to involve EPA testing for enforcement purposes. Although not required to do so, EPA has decided to set forth in the preamble of this Rule testing tolerances for these parameters, in order to provide regulated entities with information of interest to them regarding EPA's enforcement program.

In fuels enforcement programs under Title II of the Clean Air Act, EPA generally uses data obtained from its own laboratory to determine the appropriateness of any testing tolerance. At the present time, however, sufficient data needed to determine enforcement testing tolerances based on EPA laboratory data are not available. Therefore, EPA is setting initial test tolerances sufficiently large to assure that any competent laboratory testing a conforming sample could arrive at results that would indicate that the sample was not in violation. However, EPA may adopt new tolerances as data on test methods are developed, as technology changes, or as further information becomes available concerning the precision and accuracy of a particular method, whether established by EPA or by multiple testing protocol.

The test tolerance is only to be used by EPA to determine whether an enforcement action should be brought. It is EPA's contention that any sample that is over the standard is in violation. However, no enforcement action will be brought if the sample is over the standard, but within the tolerance. Furthermore, refiners and importers may not use the tolerance to expand the applicable standard. If the refiner or importer results show the product to be above the standard, then the product is in violation regardless of whether or not it is within the tolerance.

To better establish the most appropriate test tolerances, EPA proposes a joint effort between EPA and industry to develop a gasoline standard with known properties which could be used by all laboratories for calibration purposes and for detecting laboratory biases.

EPA has not included in this Preamble the enforcement tolerances for VOC and NO_X emissions performance, but intends to issue guidance that includes these enforcement tolerances within the next several months. The tolerances applicable under the complex model will be applied by EPA in the manner discussed above.

The following enforcement tolerances currently are applicable under the simple model:

a. *RVP.* A tolerance of 0.30 psi will be allowed for RVP in order to be consistent with the tolerance level currently used in the gasoline volatility program.

b. *Oxygen.* The oxygen tolerance will be 0.30 weight percent oxygen, which is consistent with the test tolerance currently in use in the winter oxygenate program.

c. *Benzene.* The initial test tolerance for benzene is 0.21 vol%, but this tolerance value will be modified through a round-robin testing process that is intended to identify a more appropriate test tolerance for benzene. Under this approach, the 0.21 vol% initial benzene tolerance will be used only until January, 1996, when the modified benzene tolerance will apply.

The process for identifying the new benzene tolerance will involve a round-robin testing program to be carried out cooperatively by EPA and the American Petroleum Institute (API). This testing program will involve testing by a number of laboratories selected by EPA and API, in accordance with a round-robin testing protocol that will be developed jointly by EPA and API. The purpose of the testing program is to identify the lab-to-lab reproducibility that exists among high-caliber laboratories that follow good laboratory procedures including procedures dealing with quality assurance and quality control, and where all reasonable steps have been taken to achieve high lab-to-lab correlation. The testing program generally will follow the round-robin methodology used by the American Society of Testing and Materials (ASTM). EPA, API, and the laboratories involved also will attempt to improve lab-to-lab correlations, through use of a gasoline matrix with known, repeatable properties.

The new tolerance will be determined from the reproducibility standard deviation resulting from the round-robin in such a way that the Agency can be 95% certain that materials tested at the standard plus the tolerance are in fact over the standard. The above calculations will be used to establish the tolerance regardless of whether the resulting value is less than or greater than 0.21 vol%, but the value will not be greater than 0.30 vol% regardless of the results of the testing program.

The round-robin testing is to be completed by January 1, 1995, statistical analysis of the test results will be completed by June 1, 1995, the new tolerance will be announced by EPA by July 1, 1995, and the new tolerance will be effective beginning in January, 1996. In the event the round-robin testing program is not completed by January, 1995, the benzene tolerance will be 0.03 vol% beginning in January, 1996, provided that the failure to complete the program is through no fault of EPA. If, however, the testing program failure is EPA's fault, or if the testing program is completed in accordance with the round-robin testing protocol and the testing data is submitted to EPA by January 1, 1995, the initial 0.21 vol% benzene tolerance will continue to apply beyond January, 1996. If, through EPA's fault, the announcement of the tolerance is delayed beyond July 1, 1995, the new tolerance will become effective six months following announcement of the new tolerance, and until then the tolerance of 0.21 vol% will apply.

C. Independent Sampling and Testing Requirements

In its 1992 supplemental proposal, EPA proposed that refiners and importers would be required to carry out a program of independent sampling and testing of reformulated gasoline that is produced or imported. 57 FR 13445. Only refiners commented on this proposal; without exception, these comments were critical. Nevertheless, EPA has retained the independent sampling and testing requirement in the final rule, with certain revisions based on comments, for the reasons contained in the 1992 SNPRM and in today's notice.

In the 1992 SNPRM, EPA explained the reasons for the independent sampling and testing requirement. Independent sampling and testing would flag errors in refiner or importer analysis and allow corrections of either noncomplying product or of the accounting books kept by these parties. These errors could be caused by mistakes in sample collection, sample analysis, by bias in the refiner's or importer's sampling and/or testing system, by inadvertent mistake, or by outright cheating.

In addition, EPA expects that reformulated gasolines will almost always be combined in the fungible gasoline distribution system after it leaves the refinery, and in many cases such fungible mixing will occur before the gasoline leaves the refinery or is transferred by the refiner to another party. Once fungible mixing occurs, there is no opportunity to look behind the refiner's or importer's test result records, except for those limited cases where EPA inspects reformulated gasoline at the refinery before fungible mixing of the gasoline occurs. This problem is amplified by the averaging option available for refiners and importers. Once a batch of reformulated gasoline becomes mixed with other batches from the same or different refiners or importers, EPA is no longer able to test this fungible mixture to determine compliance with either per-gallon or averaging standards. EPA can then only sample and test for compliance with the maximum and minimum requirements, and has to rely on the refiner's or importer's records and test results to verify the accuracy of averaging and credit reports that are submitted.

Sampling and testing by EPA would therefore normally be a valid check only for maximum and minimum requirements, and will not provide a means of verifying whether the individual gasolines contained in a fungible mixture met the reformulated gasoline per-gallon or average standards when produced. Absent independent sampling and testing, therefore, there would be little or no means of verifying whether reformulated gasoline met standards, or whether reports of credit creation are accurate.

Commenters on the proposed rule cited a number of reasons the independent sampling and testing requirements should be revised or not be made final. One commenter stated that independent sampling and testing is unnecessary and redundant to other enforcement requirements included in the reformulated gasoline program, such as penalties for noncompliance, the quality assurance sampling and testing defense element, gasoline quality surveys, recordkeeping, and attest engagements.

While these enforcement requirements in the final rule are important, their focus is different from the focus of independent sampling and testing. Quality assurance sampling and testing is a required showing for most parties presumed liable for downstream violations that is intended to monitor compliance with the maximum and minimum requirements, and is not intended to monitor the accuracy of the per-batch properties refiners and importers enter into their records. The recordkeeping requirements do not play a verification role; records kept by refiners and importers are only as accurate as the information entered by these parties. The gasoline quality surveys monitor the overall quality of gasoline being used in a covered area during the survey periods, but the capacity of surveys to detect cheating by refiners and importers is limited. Surveys will take place in any covered area during only several weeks per year. In addition, the gasoline used in a covered area is a mixture of the gasolines produced or imported by a large number of refiners and importers, often hundreds or thousands of miles distant from the covered area. Surveys would not be expected to detect improper deviations in gasoline properties from the properties reported by one or several of these refiners or importers.

The procedures specified for attest engagements were specifically designed to not overlap with the independent sampling and testing provisions. In any event, in most cases attests would not be capable of detecting errors or cheating in sample analysis; an auditor only can review the information contained in a refiner's records, and is not able to collect and analyze samples of gasoline produced months prior to the attest engagement.

These and other components of EPA's enforcement program for reformulated gasoline are not able on their own to address the main focus of the independent sampling and testing program—the accuracy of the individual batch determinations made by refiners and importers. These determinations must be accurate to achieve compliance with either the per-gallon or averaging standards. Given the fungible mixing of reformulated gasoline both within a refinery or import facility and in the gasoline distribution system, EPA is not able to check the accuracy of these individual batch determinations.

Compliance with the reformulated gasoline requirements also involves accurately analyzing many more gasoline components than is required under any of EPA's prior motor vehicle fuel regulations. This additional complexity both increases the need for refiner or importer accuracy, and makes it that much harder for EPA to check compliance after gasoline has been fungibly mixed. EPA believes the independent sampling and testing program is a reasonable response to these circumstances, and draws a reasonable balance between EPA's enforcement needs and the desirability of maintaining a highly fungible gasoline distribution system.

Other commenters stated that independent sampling and testing was unnecessary because the fungible gasoline distribution system, and contractual commitments, will guarantee product compliance. EPA

believes that product specifications will be set by pipelines or gasoline sales contracts for reformulated gasoline, however these specifications are expected to address only the minimum and maximum requirements and time and place of use restrictions. EPA does not believe these specifications will focus on whether a particular batch of reformulated gasoline was produced on average or per-gallon, or on the specific parameter values of the batch, provided the values are within the maximum and minimum requirements. As a result, gasoline specifications do not obviate the need for independent sampling and testing.

Several commenters cited cost as a basis for excluding independent sampling and testing from the final rule. One industry group commented that the costs of independent sampling and testing will be $30 to $40 million per year

EPA believes the costs of independent sampling and testing will be significantly smaller than this commenter suggested. EPA has estimated that the annual costs of this program element will be between $1.9 and $7.8 million per year. A copy of a memorandum describing EPA derivation of this estimate has been placed in the docket for this rulemaking. EPA believes that the principal difference between the industry and EPA cost estimates is that the industry assumes it will be necessary for each refinery to have an independent sampler in place 24 hours per day, 365 days per year. As a result of this assumption, industry assigns an annual cost of $32 million for sample collection only. This assumption is not justified. While some high-volume refineries producing a large percentage of reformulated gasoline may require the presence of an independent sampler much of the time, most refineries will produce a batch of reformulated gasoline less frequently than every day.[49]

Several commenters stated that the costs of independent sampling and testing will be disproportionately high for small refiners, because their batch sizes are small in comparison to batch sizes for larger refiners, and because independent labs may not be conveniently located relative to small refineries, requiring sample shipping. It is true that the per-gallon costs of independent sampling and testing will be larger for a refinery producing reformulated gasoline in small batches in comparison to the per-gallon costs for a refiner producing larger batches. Nevertheless, EPA believes this cost difference is insignificant. For a 20,000 barrel batch, a small-sized batch, the per-gallon cost of independent sampling and testing would be $0.0003; for a 50,000 barrel batch, the per-gallon cost would be $0.0001.[50] EPA anticipates that samples collected at refineries located distant from any reliable independent laboratory will be shipped to the laboratory, but does not believe such sample shipping is problematic or costly. These conclusions are based on EPA's experience in conducting gasoline quality inspections throughout the country over at least the past dozen years, when its inspectors have shipped several thousand samples per year to EPA's laboratory for analysis.

Commenters stated that the independent sampling and testing requirements will result in delays in the movement of finished reformulated gasoline due to the time required to resolve test result discrepancies between refiner/importer laboratories and independent laboratories, or that gasoline found to violate standards through independent sampling and testing may not be correctable because the gasoline in question will be in the fungible distribution system at the time the violation is determined.

EPA does not believe these concerns create a basis for excluding the independent sampling and testing requirements. EPA does not construe the independent sampling and testing provisions to require refiners or importers to hold gasoline at the refinery or import facility until the independent testing is completed. In the event of a discrepancy between the refinery/importer test result for a gasoline batch and the independent laboratory test result for that batch, EPA anticipates the refiner/importer will correct the batch values it claims: if the standard for the parameter in question is being met on average, the value for that parameter used in calculating compliance would be changed (if the correct parameter value is within the per-gallon maximum).

In the case of gasoline subject to the per-gallon standards, and in the case of the per-gallon minimum and maximum standards, EPA believes refiners and importers will be able to avoid the situation where, subsequent to the gasoline leaving the refinery or import facility, the gasoline is discovered to violate these standards. Refiners and importers will avoid this situation in several ways. First, refiners and importers will have the results of their own tests before the gasoline leaves the refinery or import facility, and the final rule requires that these tests must indicate the gasoline meets all standards. Second EPA's experience is that refiners and importers produce gasoline subject to per-gallon standards with a "margin-of-safety" sufficient to ensure tests by others do not indicate the gasoline fails to meet the standards. Third, with regard to tests pursuant to the independent sampling and testing requirement, refiners and importers presumably will select only high-caliber independent labs, and will closely correlate with them, making the possibility of conflicting test results unlikely. Fourth, the independent lab results do not have to exactly match the refiner- or importer-test results, but rather have to be within a range that is specified in the final rule. Lastly, test results by regulated parties downstream of the refinery or import facility (e.g., pipelines, terminals), or by EPA, would not be a basis for concluding gasoline violates a per-gallon minimum or maximum standard unless the test result exceeds the standard *plus* an enforcement tolerance. Enforcement tolerances are discussed in another section of this preamble.

Nevertheless, in a situation where these mechanisms fail and a refiner or importer learns, through tests by EPA or others, that a parameter value for a gasoline batch subject to the per-gallon standard violated that standard, or for a gasoline batch subject to the average standard violated a per-gallon minimum or maximum standard, the refiner or importer would be expected to correct the violation.

Several commenters raised concerns over the logistics and safety of non-company employees entering refineries to collect samples. EPA agrees that in order to comply with the independent sampling and testing requirements, a refiner or importer will be required to make arrangements with the independent laboratory that address logistics and safety issues. A refiner or importer would be expected to select as its independent laboratory a company

[49] Industry has estimated that, nationwide, 175 batches of gasoline are produced per day. Only a portion of these will be of reformulated gasoline, and of these, a portion will be produced through in-line blending and not require independent sampling and testing. The number of batches per day that will require independent sampling and testing is between 22 and 71. There are about 200 refineries operating in the United States; EPA believes that between 100 and 120 of these will produce reformulated gasoline (excluding refineries in California that will be exempt from the independent sampling and testing requirements). As a result, EPA estimates that on average refineries will produce one batch of reformulated gasoline that requires independent sampling and testing every 1.4 to 5.5 days.

[50] EPA estimates the cost to collect and store a sample will be $230, and the analysis costs will be $42 (based on an analysis cost of $415 and analysis of 10% of the samples collected at a refinery), or $272.

that is able and willing to commit by contract to collect samples in a manner that minimizes interference with refinery or importer operations—to collect samples in a timely manner, and comply with company safety requirements. Because refiners and importers are given the latitude to select their own independent laboratories, EPA believes these parties will be able to identify and select ones that are satisfactory.

Several commenters stated that independent sampling and testing will not be a successful deterrent to willful cheating, because a cheater can buy off its "independent" laboratory. While this type of fraud is always possible, EPA believes it is considerably more difficult for a refiner or importer intent on cheating to falsify reports when a second company has to be brought into the conspiracy. Given the consequences if caught, independent laboratories are unlikely to collaborate with a refiner or importer to falsify reports to EPA. False reporting by a refiner, importer, or independent laboratory would constitute a criminal violation under 18 U.S.C. section 1001, subject to monetary penalties and imprisonment, and EPA would expect to seek vigorous prosecution of such a case. In addition, the final rule provides that any laboratory that fails to comply with the requirements of the rule is subject to debarment or suspension, *i.e.*, the company that operates the laboratory would be made ineligible for any government contracts, and would be precluded from participating in the reformulated gasoline program.

Another criticism made of the independent sampling and testing provision is the inconsistency with the requirements for conventional gasoline, where independent sampling and testing is not required. EPA considered requiring independent sampling and testing for conventional gasoline, but decided to treat conventional and reformulated gasoline differently in this regard. EPA believes the profit incentive for cheating is less for a producer of conventional gasoline than for a producer of reformulated gasoline. Conventional gasoline does not require the new and costly refining procedures necessary for reformulated gasoline, and will not be sold at reformulated gasoline's price. In contrast to reformulated gasoline, conventional gasoline is subject to neither time and place of use restrictions nor to per-gallon maximums and minimums. Moreover, an enforcement program for reformulated gasoline that is more strict than for conventional gasoline is appropriate given the greater air quality concerns in the areas slated to receive reformulated gasoline.

EPA considered enforcement approaches to verifying refiner and importer test results for conventional gasoline that are less burdensome than independent sampling and testing, such as the approaches that were suggested by the reformulated gasoline commenters and are discussed below. These middle-ground approaches were rejected for the same reasons they were rejected for the reformulated gasoline program—they simply would not be effective as test verification mechanisms.

As a result, EPA concluded that while independent sampling and testing is necessary for reformulated gasoline, these procedures are not justified for conventional gasoline.

Commenters suggested several alternatives to independent sampling and testing. None of these alternatives satisfy the program needs addressed by independent sampling and testing, however.

Many commenters stated that EPA should establish a program of EPA certification of refiner and importer company laboratories, and participation in round-robin analysis programs, as an alternative to independent sampling and testing. Presumably independent sampling and testing only would be required where a company laboratory failed to obtain EPA certification. Commenters cited other federal programs that include the laboratory certification and/or round-robin approach, including the National Pollutant Discharge Elimination System (NPDES) and federal requirements for petroleum products produced to meet military specifications.

EPA does not believe that laboratory certification and round-robin programs would provide sufficient verification of refiner or importer testing of reformulated gasoline. Programs of this type generally provide information on the quality of work a given laboratory is capable of performing under optimal conditions; they shed little light on the quality of the laboratory's day-to-day work which is the main focus of the independent sampling and testing requirement.

Certification by EPA or another organization would determine if a laboratory has proper equipment and personnel properly trained as of the date of the certification, but would provide no certainty of the ongoing laboratory operation. The treatment of round-robin samples by laboratories is predictably special. If a laboratory's continued certification is contingent on the quality of its analysis of samples received from EPA, the laboratory would be expected to assign its best personnel to this task, to be particularly careful in the analysis, and probably to repeat the analysis enough times to be certain a correct result is obtained. The treatment received by round-robin samples may bear little resemblance to the treatment normal samples receive. Certainly, neither laboratory certification nor round-robin testing would constitute any deterrent to a willfully cheating refiner or importer.

EPA believes the other federal programs that use laboratory certification and/or round-robins are inappropriate precedents for use of these approaches in the reformulated gasoline program. In the case of petroleum products produced to military specifications, the military presumably receives the products produced and can at that time verify whether the products meet relevant standards and criteria. This type of after-the-fact verification is not possible for reformulated gasoline for the reasons that have been discussed. In the case of facilities regulated under the NPDES program, it is possible to verify whether the levels of pollutants being discharged by the facilities are consistent with facility-specific permits that have been issued through EPA inspections that include water samples collected at the facilities. The reformulated gasoline situation is distinguished from the NPDES program because fungible mixing that often occurs within the refinery or import facility would render EPA inspections ineffective as a reformulated gasoline test verification mechanism.

Commenters offered other alternatives to independent sampling and testing that would rely on random refinery audits by independent parties or by EPA, or of verification-analysis by EPA of a representative portion of the samples analyzed by refiners and importers. EPA rejected these alternatives. The limitations inherent in EPA refinery or import facility inspections that result from fungible mixing, discussed above, also would apply to audits conducted by independent parties. A program that would rely on EPA-conducted verification analysis of certain samples that are sent to EPA by refiners or importers raises the same types of concerns that occur under the round-robin approach. Refiners and importers would be expected to analyze samples that also are sent to EPA for verification-testing with a level of care that may bear little resemblance to normal laboratory practices, and this approach would

provide small deterrent to the willful cheater.

Other commenters suggested that EPA should rely on EPA-conducted inspections at refineries and at downstream locations, as in the gasoline volatility program. EPA intends to conduct inspections like these under the reformulated gasoline program, but does not consider them to be replacements for independent sampling and testing. EPA inspections at refineries and import facilities will be able to monitor the refiner- or importer-claimed properties for reformulated gasoline only if product is present at the time of the EPA inspection that has not been fungibly mixed. EPA believes this will often not be the case. Moreover, the refiner or importer is required to submit reports to EPA stating the claimed properties of a batch of gasoline only at the conclusion of each quarter, and would know which gasoline EPA sampled during an inspection. It would be expected that prior to filing its report to EPA, a refiner or importer would verify, and re-verify, its analysis results for gasoline that had been sampled by EPA. A willful cheater could simply record the correct properties for gasoline that had been sampled by EPA, while continuing to report bogus properties for the remainder of the gasoline.

Inspections conducted by EPA downstream would almost always be of fungibly mixed gasolines, and as a result would be valid only for checking compliance with the maximum and minimum requirements; downstream inspections would not serve as a check on the per-gallon or average properties claimed by refiners and importers.

It is relevant to note the difference in enforcement that was used under the lead phasedown program, as contrasted with the enforcement possible under reformulated gasoline. Lead phasedown was similar to reformulated gasoline in that refiners and importers were required to meet an average standard that applied to gasoline produced or imported. Unlike reformulated gasoline, however, lead phasedown compliance was based only on the volume of gasoline produced and the amount of lead used in that production—two categories of information that were easily verified after-the-fact. Lead usage was verifiable because EPA required all lead manufacturers to report to EPA the amount of lead shipped to each refinery. EPA could verify the volume of gasoline produced through audits of refinery production documents, cross checked with refinery sales documents and records from transferees of refinery gasoline.

Under reformulated gasoline, however, this type of after-the-fact verification of refinery or importer reports is not possible. In contrast with volume information, routinely determined and kept by all parties to gasoline transactions, the properties relevant to reformulated gasoline include many that are routinely determined only a single time—by the refiner laboratory—and are therefore not susceptible to verification and cross checks.

One commenter stated that EPA should require independent sampling and testing only for identified violators. EPA has rejected this option, however, because of difficulties in implementing such an approach. The limitations in determining refiner or importer cheating in its reports to EPA, discussed above, would make it difficult for EPA to know or prove any party is a violator in this way. Such refiner-specific imposition of independent sampling and testing would most properly be based on proof of refiner violations involving improper product testing, but if such violations could be documented easily, or even with difficulty but reliably, there would be little need for independent sampling and testing to begin with. It is precisely this difficulty in detecting and documenting testing violations that creates the need for independent sampling and testing. Violations that are susceptible to reliable documentation, such as of the minimum and maximum requirements or of the time and place of use restrictions, would not appear appropriate predicates for imposing independent sampling and testing. Requirements of this type are not the primary focus of independent sampling and testing. Moreover, if non-testing violations resulted in the imposition of independent sampling and testing, alleged violators would likely use protracted litigation to avoid the consequence.

Commenters made a number of suggestions as to changes that should be made in the independent sampling and testing program as proposed. One commenter proposed that EPA should require independent sampling and testing only for reformulated gasoline that meets standards on average, and not for reformulated gasoline that meets standards per-gallon. EPA rejected this option, however, for the reasons provided below.

EPA could inspect reformulated gasoline produced to meet the per-gallon standard, or fungible mixtures of per-gallon gasolines, and gain reasonable certainty that the gasolines were produced in compliance with the per-gallon standard. This is the type of enforcement program used for other gasoline rules with per-gallon standards, such as volatility. See 40 CFR part 80. In the absence of averaging, this is the type of enforcement program EPA might expect to use for reformulated gasoline.

EPA believes that most reformulated gasoline found downstream will not be per-gallon gasoline only, however, but rather is likely to be either averaged gasoline or a mixture of per-gallon and averaged gasoline, and therefore not susceptible to downstream verification of refiner and importer reports. As a result, the ultimate consequence of removing the independent sampling and testing requirement from per-gallon gasoline would be the loss of verification over most refiner and importer reports for per-gallon reformulated gasoline.

One commenter said that EPA should require independent laboratories to use the same test methods as the refinery. EPA agrees with this suggestion, and has incorporated it in the final rule. As discussed in the test method section of this Preamble, EPA requires refiners and importers to use the regulatory test methods when meeting the refinery and import facility testing requirements in order to avoid erroneous test results due to bias among test methods. For the same reason, the accuracy of test results by independent laboratories would be compromised if independent laboratories use non-regulatory test methods. The commenter's suggestion is an appropriate solution to this possibility.

Another commenter said that EPA should reduce the length of time independent laboratories are required to retain samples, from the 180-day period in the proposal to 60 days. EPA has retained the 180-day sample retention period to allow EPA the opportunity to obtain portions of samples after it receives quarterly reports from refiners, importers, and independent laboratories. EPA recognizes that certain types of analysis results become less reliable as samples age, but believes there is enough information to be learned from samples older than 60 days to justify the 180-day sample retention requirement.[51]

Lastly, one commenter said that EPA should eliminate the requirement that independent laboratories determine

[51] Reid vapor pressure is the fuel parameter most susceptible to change due to storage time, because the more volatile fractions of a fuel sample may be lost if samples are not properly capped and stored at cold temperatures. Even in the case of RVP, however, EPA's experience with analyses of samples that have been stored for 180 days has been that the RVP of samples decline only approximately 0.2 psi, which is a change sufficiently small that EPA may continue to use the samples.

certain information about the gasoline sampled, including the batch volume, storage tank identification, and the grade of gasoline. EPA proposed that independent laboratories obtain this information as part of the verification process over refiner or importer reports, and continues to believe it is necessary. For example, the properties of gasoline produced is only one part of the information necessary for demonstrating compliance; the volume of gasoline produced with given properties also is necessary. Information on storage tank and gasoline grade is included as a means of confirming the gasoline sampled and tested by the refiner or importer, and that by the independent laboratory, is the same.

D. Downstream Oxygenate Blending Assumptions

EPA received various comments on the assumptions refiners and importers may make regarding downstream oxygenate blending for purposes of calculating the properties of reformulated gasoline blendstock intended for downstream oxygenate blending (RBOB). Under the proposal, and the final rule, refiners and importers of RBOB are responsible for meeting all reformulated gasoline standards, except the oxygen standard; downstream oxygenate blenders are responsible for meeting the oxygen standard for reformulated gasoline produced using RBOB. In order to determine compliance with the non-oxygen reformulated gasoline standards a refiner or importer must calculate the non-oxygen parameter values for the reformulated gasoline. To do this, a refiner or importer must include a value for the oxygen content the RBOB will achieve subsequent to downstream oxygenate blending, because the values of non-oxygen parameters will differ based upon the type and amount of oxygenate blended downstream.[52]

EPA proposed that refiners and importers of RBOB have two options for the oxygen content value used in their calculations of non-oxygen parameters. A refiner or importer could use the actual oxygenate type and amount blended with the RBOB, provided the refiner or importer carries out a program of contractual controls and quality assurance sampling and testing over the downstream oxygenate blending operation. Under the second option, the refiner or importer could make certain default assumptions regarding the type and amount of oxygenate blended downstream. EPA proposed that this assumption must be the "worst case" assumption with regard to the oxygenate type, and volume (within the oxygen minimum and maximum requirements).[53]

One commenter suggested that EPA should modify the nature of this default assumption, by allowing refiners to designate one of two categories of RBOB, "ether-only RBOB" and "any-oxygenate RBOB." These categories would have different assumptions for oxygenate type; ether-only RBOB would be assumed to be blended with MTBE, and any-oxygenate RBOB would be assumed to be blended with ethanol. Notwithstanding the assumption of MTBE use for purposes of compliance calculations for ether-only RBOB, any ether could be added downstream to an ether-only RBOB. However, it would be a violation to add an alcohol to an ether-only RBOB. This commenter stated further that the amount of oxygenate should be assumed to be that amount necessary to add 2.1 weight percent oxygen, the annual average oxygen level that oxygenate blenders must achieve for reformulated gasoline produced using RBOB when meeting the oxygen content standard on average.

EPA has generally adopted this suggestion for the final rule, but in a slightly modified form.

By adopting the approach suggested in the comments EPA is in effect adding an ether-only designation to the any-oxygenate designation implicit in EPA's proposal. EPA also is modifying to some extent the oxygen content and type assumptions that refiners must make if they rely on this RBOB designation in determining compliance with the VOC, toxics, and other non-oxygen content requirements of reformulated gasoline. First, refiners and importers that produce or import RBOB are required to designate the RBOB as any-oxygenate RBOB, or as ether-only RBOB.[54] These designations are in addition to, but must be consistent with, the specifications for the type(s) and amount(s) of oxygenate that must be included in the product transfer documents for RBOB. Second, refiners or importers that do not meet the requirements for a quality assurance program over downstream oxygenate blending, must assume that ethanol is blended with any-oxygenate RBOB, and that MTBE is blended with ether-only RBOB. For both types of RBOB, the refiner or importer must assume that the amount used is that amount sufficient for the gasoline produced to have 2.0 weight percent oxygen, or approximately 5.70 volume percent in the case of ethanol and approximately 10.80 volume percent in the case of MTBE. Refiner or importer oversight of the downstream oxygenate blending operation is not required if a refiner or importer relies on these "worst case" assumptions. However, as noted below, these types of RBOB must be segregated from one another.

EPA believes these assumptions regarding the type of oxygenate used are appropriate. The principal risk to the environment under the oxygen use assumptions is that an oxygenate blender will blend ethanol with ether-only RBOB, which would result in reformulated gasoline that probably would support neither the toxics nor benzene properties claimed by the refiner or importer of the RBOB (due to an insufficient dilution effect), nor, in the case of VOC-controlled gasoline, the claimed RVP nor VOC properties (due to RVP increases from ethanol). On the other hand, any-oxygenate RBOB will be formulated for blending with ethanol, and would only improve for all properties if blended with an ether such as MTBE.

Several mechanisms will help ensure ethanol is not blended with ether-only RBOB. Ether-only RBOB and any-oxygenate RBOB must be segregated throughout the distribution system to the point of oxygenate blending. The product transfer documents will identify ether-only RBOB as such, which will put each person in the distribution network, and the oxygenate blender, on notice that the RBOB is not suitable for ethanol blending. Absent a highly unusual situation, a distributor would not be expected to dispense ether-only RBOB into a gasoline

[52] The impact of blending different oxygenate types and amounts on the non-oxygen properties of RBOB is great. VOC emissions are dramatically affected by changes in RVP, yet different oxygenates affect RVP very differently; ethanol blended above about four volume percent (1.5 weight percent oxygen) increases the RVP of the resulting gasoline by 1 psi, while oxygenates other than ethanol cause very little or no change in RVP.

Similarly, toxics emissions performance and benzene are strongly influenced by the dilution effect caused by oxygenate blending, yet different oxygenates must be blended at very different volumes to result in the same oxygen content in the gasoline produced; to produce gasoline with 2.00 weight percent oxygen, for example, requires 5.4 volume percent ethanol, or 11.0 volume percent MTBE.

[53] The worst case assumption for RVP and VOC emissions performance reduction would be ethanol, at the oxygen maximum level. For toxics emissions performance and benzene, the worst case would be the oxygenate providing the minimum volume (normally ethanol) at the oxygen minimum level.

[54] Any oxygenate RBOB must meet all reformulated gasoline standards subsequent to blending with any of the following: ethanol, methanol, butanol, MTBE, TAME, or ETBE. Ether-only RBOB must meet all reformulated gasoline standards subsequent to blending with any of the following: MTBE, TAME, or ETBE.

delivery truck for splash blending, because ethanol is the only oxygenate that normally is splash blended in trucks. In addition, it is likely that if ethanol were blended with VOC-controlled ether-only RBOB, the resulting gasoline will not meet the RVP maximum or VOC emissions performance minimum requirements, and would be susceptible to detection through EPA inspections or quality assurance programs conducted by regulated parties.

EPA believes the volume assumptions based on 2.0 weight percent oxygen are preferable to the commenter's suggested 2.1 weight percent basis, because there is no reason to believe any particular oxygenate blender will elect to use the averaged oxygen standard of 2.1 weight percent. In a situation like this involving default assumptions it is appropriate to adopt a more conservative assumption. Oxygenate blenders have the option of meeting either the oxygen standard for per-gallon compliance of 2.0 weight percent, or the oxygen standard for average compliance of 2.1 weight percent. EPA believes the assumption that oxygenate blenders will at least meet the per-gallon standard is appropriate, and preferable to the proposed "worst case" oxygen use assumption of 1.5 weight percent, due to enforcement mechanisms contained in the final rule that apply to oxygenate blenders, i.e., quality assurance sampling and testing and recordkeeping.

While it is true that any single batch of reformulated gasoline produced by blending RBOB with oxygenate could receive the per-gallon minimum 1.5 weight percent oxygen, the oxygenate blender must offset any gasoline produced at this oxygen level with other gasoline produced with oxygen levels greater than 2.1 in order to meet the 2.1 average oxygen content standard. In addition, EPA believes it is likely that most oxygenate blenders will choose to meet the oxygen standard on a per-gallon basis, rather than on average. The testing, recordkeeping, and reporting requirements for an oxygenate blender who elects the average oxygen standard are significantly greater than for an oxygenate blender who elects the per-gallon standard. Moreover, EPA's oversight experience with the state-enforced wintertime oxygenated fuels program, which includes the option of meeting that program's oxygen standard either per-gallon or on average, is that the vast majority of oxygenate blenders have elected the per-gallon option in that program. This precedent from the oxygenated fuels program is more compelling because the oxygen standard in the oxygenated fuels program is 2.7 weight percent for both the per-gallon and average options, yet oxygenate blenders for the most part still chose the per-gallon option. In contrast, under the reformulated gasoline program the average oxygen standard (2.1 weight percent) is more rigorous than the per-gallon oxygen standard (2.0 weight percent), which is an additional reason to believe reformulated gasoline oxygenate blenders will choose the per-gallon option.

All oxygenate blenders, including a blender using any-oxygenate or ether-only RBOB and who uses the average oxygen standard, must follow the oxygen amount instructions contained in the RBOB product transfer documents. These instructions must specify the minimum oxygen necessary for the resulting reformulated gasoline to meet all per-gallon minimum and maximum standards. For example, a particular batch of any-oxygenate RBOB may specify 2.0 weight percent oxygen in order for the resulting reformulated gasoline to meet the 1.3 vol% benzene per-gallon maximum. An oxygenate blender using the RBOB in this example is required to add a volume of oxygenate that is large enough for the reformulated gasoline to have a minimum 2.0 weight percent oxygen (e.g., a minimum of 5.4 vol% ethanol), regardless of whether the oxygenate blender is meeting the oxygen standard per-gallon or on average.

A refiner or importer of RBOB who, in lieu of producing ether-only and/or any-oxygenate RBOB, elects to conduct a quality assurance program over downstream oxygenate blending operations may use the actual oxygen types and amounts blended with the RBOB. If such a refiner or importer fails to properly carry out the quality assurance program, however, the RBOB will be deemed to have been blended with 4.0 vol% ethanol (1.5 wt% oxygen), the "worst case" oxygenate type and amount that is not constrained by "ether-only" or "any-oxygenate" designations. Under this assumption the reformulated gasoline would receive a 1 psi RVP boost associated with ethanol (see Section I of the RIA), and the minimum dilution effect of any oxygenate at 1.5 wt% oxygen (for example, 1.5 wt% oxygen results from 4.0 vol% ethanol, or 8.2 vol% MTBE). This assumption is appropriate in such a situation because it is possible the RBOB could be blended with ethanol at the 1.5 wt% oxygen minimum. EPA believes it is reasonable to assume the RBOB will be blended with at least the per-gallon minimum oxygen volume of 1.5 wt% oxygen, because of the requirements imposed on oxygenate blenders, such as recordkeeping, and mechanisms included in the final rule to ensure compliance with per-gallon minimums, such as quality assurance sampling and testing by regulated parties and enforcement by EPA.

E. Averaging issues

1. Use of per-gallon and average standards

EPA proposed that refiners and importers would be allowed to decide, on a per-batch basis, which regulated parameters will be subject to per-gallon standards and which will be subject to average standards. See 57 FR 13444 (April 16, 1992). For example, under the proposal refiners could decide for any given batch of reformulated gasoline to meet the benzene per-gallon standard and the toxics emissions reduction standard on average. Under the proposal these elections could be made separately for each batch of gasoline produced or imported, and separately for each parameter.

EPA also intended that these per-gallon/average elections could be changed subsequent to the gasoline leaving the refinery or import facility, so that if gasoline that was intended to meet a particular standard on a per-gallon basis is discovered, subsequent to shipment, to violate the per-gallon standard, the refiner or importer could change its accounting records to switch the gasoline batch to the average standard category (provided the gasoline meets the per-gallon minimum or maximum).

EPA has reconsidered this approach, and now believes that refiners and importers should be allowed to use either the per-gallon or the average standard for each parameter, but that parties may not use a combination of per-gallon and average standards for any parameter during any single averaging period. This per-gallon versus average election must be made separately for each refinery and for each importer or oxygenate blender. Under this revised approach, for example, a refiner could elect to meet the benzene standard per-gallon and the toxics emissions performance standard on average for all reformulated gasoline produced at a refinery, but once these elections are made, they would apply to all reformulated gasoline produced at that refinery for the entire averaging period for these parameters.

EPA is making this change from the proposal because it is concerned that under the proposed approach nationwide average levels for regulated parameters would not achieve the levels of the average standards. For example,

the average standard for benzene is set at 0.95 wt%, because, among other factors, EPA estimates that this level is at least as stringent as the benzene level that would exist in the absence of averaging. EPA is concerned that under the proposed approach for electing per-gallon versus average standards the nationwide average benzene levels in reformulated gasoline would be greater than the 0.95 wt% average standard for benzene. This result would be contrary to the intent of the Clean Air Act and EPA's goal that averaging should result in average parameter levels that are no less stringent than would occur in the absence of averaging.

Section 211(k)(7)(C) of the Act provides that benzene and oxygen credits may not result in average levels for these parameters that are less stringent than would occur in the absence of using any benzene or oxygen credits. EPA has viewed this constraint on the use of credits as appropriate to employ for all reformulated gasoline parameters that may be met on average, including parameters other than oxygen and benzene, that averaging should not result in average parameter levels that are less stringent than would occur in the absence of averaging.

In addition, section 211(k)(1) of the Act directs EPA to promulgate reformulated gasoline regulations that require the greatest achievable reductions in VOC and toxics emissions, taking into account cost, health and environmental impacts, and energy requirements. EPA has concluded that if refiners were required to meet the reformulated gasoline standards on a per-gallon basis only, that refiners would produce gasoline with properties equal to the standards plus "margins-of-safety" necessary to ensure the gasoline in fact meets the per-gallon standards. EPA also has concluded that the added flexibility afforded regulated parties through an average VOC or toxics standard results in the ability by refiners and importers to achieve more stringent standards when met on average than is possible when standards are met per-gallon, and the magnitude of this greater stringency is at least equal to the margins-of-safety that would be used with per-gallon standards. As a result, in implementing section 211(k)(1) EPA intends to establish requirements that will result in reformulated gasoline having VOC and toxics properties that in practice are at least equal to the per-gallon standards plus the margins-of-safety (which is equal to the average standards).

In implementing these two statutory provisions, EPA intends that reformulated gasoline should have VOC and toxics emissions performance properties, and benzene and oxygen content properties that, regardless of whether credits or averaging are used, are in practice at least equal to the more stringent properties refiners would achieve if only a per-gallon standard were allowed. The level of these more stringent properties is at least equal to the per-gallon standard plus any "margin-of-safety" refiners would employ if only per-gallon standards were included.

As a result, EPA proposed and is adopting standards for average compliance that are more stringent than the standards for per-gallon compliance. Moreover, the differences between the proposed average and per-gallon standards reflect EPA's estimates of this per-gallon "margin-of-safety" for each parameter. The relationship between margins-of-safety and average standards is discussed more fully in the 1992 SNPRM, at 57 FR 13457–13458.

EPA is concerned that if refiners, importers, and oxygenate blenders can elect per-gallon versus average standards on a batch-by-batch basis, the levels of parameters in practice will not, on average, be approximately at the level expected if only a per-gallon standard were applied (equal to the per-gallon standards plus the margins-of-safety), but rather will on average be closer to the per-gallon standards. EPA believes the proposed approach would have this result because of the ability of refiners and importers to elect to use the per-gallon or the average standards separately for each batch.

For example, the per-gallon benzene standard is 1.00 vol%, and the average benzene standard is 0.95 vol%. Under the proposal a refiner could, for each batch of gasoline produced, elect to meet the per-gallon or the average benzene standard. EPA believes that under the proposed approach most refiners would produce gasoline with the intention that the benzene level will be very close to, but slightly below, 1.00 vol%. If the refiner's benzene test for any given batch indicates the benzene level is between 0.95 vol% and 1.00 vol% (which refiners would be able to achieve for most batches), the batch would be placed in the per-gallon compliance category. If the refiner misses this benzene goal for any batch, and the refiner's test result indicates a benzene level above 1.00 vol% (1.05 vol%, for example), the refiner would simply place that batch in the average compliance category, and also produce a corresponding volume of gasoline in the average category (or change a previously-produced batch to the average compliance category) having a benzene level sufficiently below 0.95 vol% that the two batches have an average benzene content of 0.95 vol%. The net result over the annual benzene averaging period would be that the majority of gasoline would be in the per-gallon compliance category with an average benzene content close to 1.00 vol%, while the minority of gasoline would be in the average compliance category with an average benzene content of 0.95 vol%. Under this example, the resulting overall benzene level of the gasoline produced by the refiner would be greater than the approximately 0.95 vol% which EPA would expect if all reformulated gasoline had to meet the per-gallon benzene standard.

EPA announced in its 1992 proposal a clear intention that average standards be allowed in order to increase refiner and importer flexibility. EPA also made clear its expectation that the "margin-of-safety" normally expected with a per-gallon standard not be lost because of averaging. This change is designed to implement this goal by preventing the potential unfavorable result from averaging described above. The final rule therefore includes a requirement that refiners, importers, and oxygenate blenders must elect, for each calendar year and for each parameter, to use only the per-gallon standard or only the average standard for each regulated parameter. This election must be made separately for each refinery.

Under this revised approach to averaging, the average parameter levels for the gasoline produced by any refiner would be approximately the same regardless of whether the refiner elects the per-gallon or the average standards. For example, a refiner who elects to meet the benzene standard on a per-gallon basis probably will plan to produce gasoline with benzene levels sufficiently below the 1.00 wt% benzene standard to ensure that, when the production of each batch is complete, the refiner's benzene test results for each batch will be below 1.00 wt%. EPA estimates that refiners subject to the per-gallon benzene standard would aim for approximately 0.95 wt% benzene, and as a result the gasoline produced by such a refiner would have an average benzene level of about 0.95 wt%. In the case of refiners subject to the average benzene standard, on the other hand, refiners probably would plan to produce gasoline with benzene levels that exactly equal the 0.95 wt% benzene standard, with the result that the average benzene level for the gasoline produced by such refiners would be almost exactly 0.95 wt%.

Under the revised approach for selecting whether to meet standards per-gallon versus average, therefore, the average parameter values in practice will be at the levels intended by EPA and Congress, and not at the less stringent levels that would have resulted from the proposed approach.

EPA has not included a process for refiners, importers, and oxygenate blenders to notify EPA in advance of the per-gallon versus average standard elections. Rather, parties in effect will make this election when the first batch of reformulated gasoline is produced or imported each averaging period, because all reformulated gasoline subsequently produced or imported during the averaging period must follow the lead of the first batch.

2. Oxygen averaging

a. *Separate oxygen averaging for simple model VOC-controlled reformulated gasoline.* In the proposed regulations published in 1992, EPA proposed that in the case of gasoline subject to the simple model the oxygen standard would have to be met separately for reformulated gasoline that is designated as VOC-controlled. The rationale for this category of oxygen averaging was that under the simple model the VOC emissions reductions required for reformulated gasoline would be deemed met only if the oxygen and RVP standards are each met for gasoline designated as VOC-controlled. Under that proposal, the gasoline quality surveys to be conducted in cities during the high ozone season would measure both RVP and oxygen of gasoline; the city would be considered to have passed a VOC survey only if both the oxygen and RVP levels met the per-gallon standards for these parameters.

An industry group commented on this approach to VOC surveys and oxygen averaging. This commenter suggested that the VOC surveys should be based on a "simple model" VOC equation that would take into account both oxygen and RVP. Under this VOC equation, if the oxygen content found during a survey is below the per-gallon oxygen standard (worse than the standard), this deficiency may be offset by an RVP level that is below the per-gallon RVP standard (better than the standard), and vice versa. This commenter went on to suggest that under this approach, there would be no need to require refiners and importers to separately meet the oxygen standard for simple model VOC-controlled reformulated gasoline.[55] Instead, according to this comment, the oxygen standard should apply only on an annual basis.[56]

In the 1993 proposal, EPA adopted the approach to VOC surveys and oxygen averaging suggested by this commenter. EPA has now reconsidered, and has included in the final rule a requirement for separate oxygen averaging for simple model VOC-controlled gasoline. The final rule retains the "simple model" VOC emissions reduction equation for use in gasoline quality surveys during the high ozone season, however.

EPA agrees that the "simple model" VOC equation is appropriate for use in the VOC compliance surveys. This is because the surveys are designed to help ensure that the area in fact receives the VOC reductions required by the simple model RVP and oxygen per-gallon and averaging standards, where refiners and importers do not need to demonstrate compliance on average beyond the refinery or importer level. If the surveys show compliance on average with the expected VOC reductions, then there would not be a need to "ratchet" the RVP or oxygen standards. However, the surveys are an enforcement and compliance tool, and do not replace the simple model standards themselves. Even if the surveys are passed, the separate RVP and oxygen content standards still apply under the simple model and refiners and importers must comply with them. Given the inherent limits on the frequency and number of VOC gasoline quality surveys they can not reasonably be treated as a substitute for the standards themselves. It is reasonable to require that a refiner or importer demonstrate compliance with the simple model oxygen content standards that apply under averaging.

Under this view, the purpose of the "simple model" VOC equation as used in VOC compliance surveys is to allow a slight variance in oxygen due to averaging, to be offset by a slight variance in RVP due to averaging, and vice versa. The "simple model" VOC equation is not intended to encourage refiners to employ a strategy of producing simple model VOC-controlled gasoline well below the oxygen standard, to be offset by gasoline well below the RVP standard. The simple model RVP and oxygen standards will still apply.

Under the complex model separate oxygen averaging is not necessary for VOC-controlled gasoline, because there is a specific standard for VOC emissions performance that applies to reformulated gasoline. VOC emissions performance will be used under the complex model gasoline quality surveys.

b. *Averaging and credits under the separate oxygen categories.* Under the final rule, simple model reformulated gasoline designated as meeting the oxygen standard on average must meet the oxygen standard during the calendar year averaging period, and must meet this standard separately for VOC-controlled gasoline, and for non-OPRG gasoline.[57] This preamble section is intended to clarify the mechanism for meeting these overlapping oxygen requirements within a single refinery or oxygenate blending facility, or for a single importer. In addition, this section is intended to clarify the manner in which oxygen credits may be created, transferred, and used.

There are four possible categories of reformulated gasoline for purposes of oxygen averaging and credits:

1. VOC-controlled, non-OPRG;
2. Non-VOC-controlled, non-OPRG;
3. Non-VOC-controlled, OPRG; and
4. VOC-controlled, OPRG.[58]

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[55] Under the 1992 proposal, the separate RVP standard would apply only to simple model VOC-controlled reformulated gasoline. The manner in which the RVP standard applies to VOC-controlled gasoline under today's rule is the same as in the proposals. The oxygen standard, on the other hand, would have to be met separately for two categories of reformulated gasoline under the 1992 proposal: VOC-controlled reformulated gasoline and all reformulated gasoline.

[56] Under the 1992 proposal, for purposes of oxygen averaging, gasoline intended for use in oxygenated fuels program areas during the oxygenated fuels control periods (or OPRG) could not be averaged together with non-OPRG gasoline. The reason separate oxygen averaging was proposed for non-OPRG gasoline is to ensure areas not included in the oxygenated fuels program receive gasoline that meets the 2.0 oxygen content mandated by the Clean Air Act. If OPRG and non-OPRG gasoline could be averaged together for oxygen purposes, the gasoline in the OPRG areas—where 2.7 weight percent oxygen is required during the oxygenated fuels control period—could be used to offset gasoline with 1.5 weight percent oxygen intended for use in non-OPRG areas.

No comments were received on this proposed treatment of oxygen averaging for gasoline designated as OPRG versus non-OPRG, and this treatment is unchanged under today's rule.

[57] Non-OPRG reformulated gasoline is reformulated gasoline not intended for use in an oxygenated fuels control area during the oxygenated fuels control period.

[58] One industry group commented that there will be no gasoline in the VOC-controlled, OPRG category. EPA disagrees with this conclusion.

VOC-controlled gasoline must be present in terminals in covered areas during the period May 1 through September 15. The oxygenated fuels control periods for areas that also are included in the reformulated gasoline program begin on October 1 or later, and last through either January or February, except for the New York City area, which lasts until April 30. Parties will supply OPRG gasoline to terminals in advance of October 1 in order to "blend up" terminals to the oxygenated fuels standard by that date. If this OPRG gasoline arrives at terminals before September 15 (which likely will occur), the gasoline also would have to

The final rule does not require that each of these categories must separately meet the oxygen standard. Only VOC-controlled and non-OPRG gasoline must each separately meet the oxygen standard. As a result, the oxygen averaging standards must be separately met for the following three classes of gasoline:

1. All reformulated gasoline produced or imported, consisting of all four categories;
2. VOC-controlled gasoline, consisting of the VOC-controlled, OPRG; and VOC-controlled, non-OPRG categories; and
3. Non-OPRG gasoline, consisting of the VOC-controlled, non-OPRG; and non-VOC-controlled, non-OPRG categories.

In order for oxygen credit creation and use to be consistent with the separate classes of oxygen averaging, the creator/transferor of any credits must identify which of the four categories the credits represent. The user/transferee of credits must apply the credits to that same category, in order to determine if the oxygen averaging requirements have been met for the three classes specified above.

By way of example, assume that Refiner A produced the following batches of reformulated gasoline, each of which was designated for average compliance for oxygen, and each of which was produced during the same calendar year:

Batch No.	Volume (gallons)	Oxygen content	Designations	
			VOC-controlled	OPRG
1	100	2.3	Yes	No.
2	150	1.9	No	No.
3	120	2.2	No	Yes.
4	100	1.8	Yes	Yes.
5	130	2.1	Yes	No.
6	160	2.2	No	No.
7	160	2.5	Yes	No.

Refiner A then calculated the compliance total for oxygen for each of the four categories, by multiplying the volume of gasoline in that category times 2.1; and the actual total for oxygen for each category, by multiplying the volume of each batch in a category times the oxygen content of the batch, and summing the results for the category. The refiner's results are as follows:

	Categories			
	VOC-control, non-OPRG	Non-VOC-control, non-OPRG	Non-VOC-control, OPRG	VOC-control, OPRG
Compliance total	819	651	252	210
Actual total	903	637	264	180

Refiner A transferred 52 credits in the VOC-controlled, non-OPRG category to another refiner, and recalculated its actual total in that category to be 851.

Refiner A then calculated its compliance position with regard to each separate class of oxygen averaging, by calculating the compliance total and the actual total for the three classes of oxygen averaging: VOC-controlled, non-OPRG, and overall. The results of these calculations are as follows:

	Class of oxygen averaging		
	VOC-control	Non-OPRG	Overall
Compliance total	1029	1470	1932
Actual total	1031	1488	1932
Net total	2	18	0

Because the actual total for oxygen is, for each class of oxygen averaging, equal to or greater than the compliance total, Refiner A has met the oxygen averaging standards.

For gasoline subject to the complex model, there are only two classes for oxygen averaging: non-OPRG, and overall. In consequence, oxygen credits must be placed into one of only two categories—OPRG, and non-OPRG. With these simplifications, oxygen credits for gasoline subject to complex model standards would be created, transferred, and use in a manner similar to the example described above. Because of the differences in oxygen categories for simple and complex gasoline, however, oxygen credits generated from gasoline subject to the complex model could not be used to achieve compliance for gasoline subject to the simple model.

3. NO_X averaging

EPA proposed that the NO_X complex model standard would be a 0% emissions performance increase under Phase I of the complex model before 2000. Under Phase II of the complex model beginning in 2000, EPA proposed a range of NO_X standards, from a 0% emissions performance increase to a 15% emissions performance decrease. Averaging was not proposed as a compliance option for NO_X. In the final rule, EPA has finalized the Phase II NO_X standards, and has allowed for NO_X averaging under both Phase I and Phase II.

Under Phase I in the final rule, the NO_X per-gallon standard remains at the proposed level of a 0% emissions performance increase. The final rule also provides an average standard for NO_X compliance of a 1.5% emissions performance reduction, which is more stringent than the per-gallon standard, and with an associated per-gallon minimum NO_X standard of a 2.5% emissions performance increase.

EPA believes that the most appropriate interpretation of section 211(k)(2)(A) is that the NO_X emissions performance of reformulated gasoline should be at the level expected from a 0% NO_X increase standard on a per-

meet the VOC-control standards; the product thus would be in the VOC-controlled, OPRG category. A similar situation will likely occur in the Spring in New York City, where parties will supply VOC-controlled gasoline to terminals in advance of May 1 in order to "blend up" terminals to meet the VOC-control standards by that date. This pre-May 1 gasoline thus would also be in the VOC-controlled, OPRG category.

gallon basis. This approach guarantees no increase in NO_X emissions, and is a reasonable interpretation of this provision. At the same time, EPA does not believe that NO_X averaging is precluded in all cases under this provision. The text of section 211(k)(2)(A) is not explicit on this point, and the certification provision of section 211(k)(4) would appear to allow averaging over a slate of fuels.

The Phase I NO_X averaging provisions are designed such that the average NO_X performance of reformulated gasoline should be the same under either standard. Given this result, and the discretion afforded the Administrator in section 211 (k)(2)(A) and (k)(4), the NO_X averaging provisions under Phase I complex model standards is a reasonable way to implement this statutory requirement.

Under Phase II, the NO_X standards are different for VOC-controlled versus non-VOC-controlled gasoline. Non-VOC-controlled gasoline has the same per-gallon, average, and per-gallon minimum standards as under Phase I. The NO_X standards for VOC-controlled gasoline under Phase II require a NO_X reduction: A 5.5% emissions performance reduction in the case of the per-gallon standard, and a 6.8% emissions performance reduction in the case of the average standard. In addition, the average standard has an associated per-gallon minimum NO_X standard of a 3.0% emissions performance reduction. The rationale for requiring NO_X reductions in conjunction with VOC-controlled gasoline under Phase II is discussed more fully in section VI of the preamble.

The general approach used for setting the average NO_X standards, and the per-gallon NO_X minimums associated with the average standards, is the same as for other average and per-gallon minimums/maximums for reformulated gasoline. The average standard is set at a level that is equal to the per-gallon standard plus the "margin-of-safety" refiners would use to ensure compliance if only a per-gallon standard were allowed. EPA estimates this "margin-of-safety" would be 1.5% in the case of VOC and toxics emissions performance. In the case of NO_X emissions performance, EPA estimates the "margin-of-safety" also would be 1.5% during Phase I, but during Phase II would be 1.3%.

The per-gallon minimum is included in order to cap the averaging range. It is set at a level that is 2.5% less stringent than the per-gallon standard in the case of VOC, toxics, and NO_X emissions performance. Limiting the averaging range is one of the mechanisms included in the final rule to ensure each covered area receives reformulated gasoline that on average provides the air quality benefits Congress intended for reformulated gasoline. The relationship between per-gallon and average standards, and the need for per-gallon minimums and maximums, are discussed in the 1992 SNPRM at 57 FR 13455–13458.

The final rule requires that the NO_X averaging standards under both Phase I and Phase II must be met separately for gasoline and RBOB that is designated VOC-controlled and for gasoline and RBOB that is not designated as VOC-controlled. This separate averaging is necessary in order to ensure that the ozone reduction benefits deriving from the NO_X reductions occur during the high ozone season. If the VOC-controlled and non-VOC-controlled gasoline could be averaged together over the entire calendar year NO_X averaging period, there is the possibility that gasoline in the non-VOC-controlled category could have sufficient NO_X reductions that, through averaging, gasoline in the VOC-controlled category would not have the intended NO_X reductions.

Separate NO_X averaging for VOC-controlled and non-VOC-controlled gasoline also is necessary to ensure that both the VOC-controlled and the non-VOC-controlled categories of gasoline comply with the no increase in NO_X emissions performance instruction of section 211(k)(2)(A) of the Act. If VOC-controlled and non-VOC-controlled gasoline could be averaged together, there is the possibility that the gasoline in one category or the other would have greater NO_X emissions performance reductions than is required, with the consequence that the gasoline in the other category could have a NO_X emissions performance increase. Requiring separate NO_X averaging for VOC-controlled and non-VOC-controlled gasoline prevents this possibility.

In a departure from the general approach used for average standards, there is no gasoline quality survey prerequisite for use of the complex model Phase II NO_X average standard for VOC-controlled gasoline. The gasoline quality surveys serve the purpose of ensuring that the minimum reformulated gasoline requirements of section 211(k) are met in each covered area when averaging is used. The minimum per gallon NO_X reductions required under Phase II for VOC-controlled gasoline go beyond the minimum requirements of section 211(k), however, so there is certainty the minimum NO_X requirements of section 211(k)(2)(A) (no NO_X increase) will be met in each covered area without the need for surveys and possible ratchets.

F. Survey Issues

1. Ratchets of Simple and Complex Standards on Survey Failure

Under the 1992 and 1993 proposals, and under the final rule, refiners, importers, and oxygenate blenders that meet standards on average must conduct gasoline quality surveys in reformulated gasoline covered areas; in the event of a survey failure for a parameter, the standards for that parameter are "ratcheted" to be more rigorous. Under the 1993 proposal, and under the final rule, VOC and toxics surveys consist of a simple model portion and a complex model portion. Also under the 1993 proposal, EPA proposed that in the event of a failure of either the simple or the complex model portions of a VOC or toxics survey, that both simple and complex model VOC and toxics standards would be ratcheted.[59]

One industry group commented on this proposal to ratchet both simple and complex standards, stating that instead of EPA's proposed approach, a failure of the simple model portion of a survey should result only in a ratchet of simple model standards, and vice versa. The commenter's concern was that ratchets of both the simple and complex standards, when only one survey type is violated, would be unnecessary to achieve the surveys' purpose—to ensure gasoline quality fluctuations due to averaging do not result in gasoline quality in any covered area that is "dirtier" than it would be if all gasoline was certified to the per-gallon standards.

With the exception of simple model VOC and toxics survey failures that occur in 1997, discussed below, EPA generally agrees with this comment. Deficiencies in gasoline quality that are identified by the surveys are corrected (prospectively) through ratchets of average and maximum standards that occur only for the class of gasoline (simple or complex) for which a survey is failed. Survey failures also are prevented through quality assurance measures implemented by refiners and importers intended to prevent survey failures and ratchets, and such measures

[59] Surveys for benzene and oxygen include both simple and complex model samples, because the measurements for these fuel parameters are not dependent on the simple or the complex models. As a result, failure of a benzene survey results in ratchets of the benzene standard under both the simple and the complex models; and the failure of an oxygen survey results in ratchets of the oxygen standard under both the simple and the complex models.

probably would not be different if ratchets occur only for the class of gasoline for which a survey is failed.

The exception to this ratchet approach in the case of simple model VOC and toxics survey failures in 1997 occurs because a ratchet of the simple model standard in such a case would not constitute an incentive to refiners or importers to prevent survey failures of this type. Use of the complex model is mandatory beginning on January 1, 1998; subsequent to this date, the simple model standards may no longer be used. As a result of this timing, any failure of a simple model VOC or toxics survey in 1997 would have no consequence if only the simple model standards are ratcheted, because ratcheted standards become applicable only in the year subsequent to the year of the survey failure. Therefore, unless both the simple and complex model standards ratchet in the event of a simple model VOC or toxics survey failure in 1997, refiners and importers will have no incentive to take steps to avoid simple model survey failures in the year before the complex model becomes mandatory.

The final rule has been modified to reflect this approach to survey ratchets.

2. The (Limited) Intra-Covered Area Averaging Alternative to Surveys

Section 211(k)(7) of the Act states that the reformulated gasoline regulations shall provide for granting oxygen and benzene credits to persons who produce gasoline that exceed the standards for these parameters, providing for certification of gasoline based on such credits where they are used within the same covered area as they are generated, and requiring that the use of credits not result in average oxygen or benzene levels that are worse than would occur if no credit provisions were allowed. This is the statutory basis for including benzene and oxygen credits in the proposals and in the final rule.

EPA believes these provisions are satisfied by refinery-based averaging combined with compliance surveys, but also believes they would allow a refiner or importer to meet the reformulated gasoline standards for oxygen and/or benzene (but not for other parameters) on average if the party is able to demonstrate the gasoline it produces or imports, and uses within a single covered area, meets the oxygen or benzene standards on average. To the extent section 211(k)(7) provides for such intra-covered area averaging, it would be allowed without the need for the gasoline quality surveys that are the general prerequisite for averaging.

In order to give regulatory effect to this averaging aspect of section 211(k)(7) of the Act, EPA proposed regulations that would allow intra-covered area averaging without meeting the survey requirements. The proposal would have allowed this averaging approach for all parameters that may be averaged. The proposal did not, however, include enforcement mechanisms intended to ensure a party choosing this option does so properly, such as mechanisms to ensure, and document, the gasoline in question is used only in a single covered area, such as recordkeeping, reporting, or quality assurance requirements.

EPA generally has retained this averaging option in the final rule in section 80.67(a)(2), but with several modifications. The final rule restricts the non-survey averaging option to oxygen and benzene only. This restriction is included because EPA intends to limit its application only to those parameters included in section 211(k)(7) of the Act. In addition, EPA has included in the final rule the requirement that any party intending to use the non-survey averaging option must first obtain approval from EPA through a petition process. The final rule specifies that the petition must describe in detail the mechanisms the refiner or importer will use to ensure that the gasoline in question is in fact produced by the refiner or imported by the importer, and is used only within the covered area and in no other attainment area or covered area. The petition also must describe the recordkeeping, reporting, auditing, and other quality assurance measures the party will use to document and report the quality of the gasoline used in the covered area.

The petition would be expected to address mechanisms to establish with certainty the properties of the gasoline used in the covered area, and mechanisms to ensure the gasoline delivered for use in the covered area is not transported by a transferee of the gasoline (e.g., a truck distributor) for use in an adjoining attainment area or in another covered area. To the extent any of a party's gasoline is mixed with gasoline produced by another refiner or imported by another importer in the fungible gasoline distribution system, EPA believes the party would have serious difficulty achieving the product tracking certainties required for intra-covered area averaging.

EPA believes this intra-covered area averaging approach will have very limited, if any, application, because it requires precise tracking of the quality of gasoline that is produced by a single refiner or is imported by a single importer and used within a single covered area. It was the great difficulty in this type of gasoline tracking, voiced by refiners and downstream segments of the gasoline distribution system, that gave rise to the general reformulated gasoline averaging approach included in the final rule—of refinery-level averaging combined with covered area gasoline quality surveys. Having established mechanisms to accomplish averaging on a nationwide basis, EPA believes it should sanction separate, intra-covered area averaging only if there is complete certainty the intra-covered area approach can be carried out successfully and in a manner subject to full enforcement oversight. EPA further believes the petition-approach included for intra-covered area averaging is the best means of accomplishing this certainty, without promulgating an additional extensive regulatory scheme.

G. Conventional Gasoline Marker

EPA's proposed intent to designate the chemical phenolphthalein as the required marker for conventional gasoline has been subjected to reconsideration on the basis of phenolphthalein field tests conducted using the gasoline pipeline operated by the Amoco Oil Company in Mandan, North Dakota by the American Petroleum Institute and Amoco. The results of those field tests suggest that phenolphthalein may not perform to EPA's expectations for reliably distinguishing conventional gasoline from reformulated gasoline. Specifically, the field tests suggest that phenolphthalein does not adequately mix with conventional gasoline and may act to contaminate water, metal surfaces and/or other petroleum products.

Accordingly, EPA has elected not to issue a final rule governing conventional gasoline markers at this time. Instead, EPA has undertaken further investigation of alternative markers with interested petroleum and chemical companies. EPA intends to publish a new proposal for the conventional gasoline marker, and to promulgate a final conventional gasoline marker rule based on this proposal. Interested parties will have the opportunity to comment on this proposal.

H. Responsibilities of Refiners and Oxygenate Blenders

The introduction to this Preamble section describes the various responsibilities of refiners and oxygenate blenders under the reformulated gasoline program.

Comments were received requesting clarification of the requirements that would apply in a case where more than one party is involved in a refinery or oxygenate blending operation.

The final regulations define the terms "refiner," "refinery," "oxygenate blender," and "oxygenate blending facility."[60] The definition of "oxygenate blender" includes a party that owns or controls the blendstocks or gasoline used or the gasoline produced at an oxygenate blending facility. This definition is necessary in recognition of the practice of blendstock owners to specify the type and amount of oxygenates to be added by another party. Because the blendstock owner thus exercises control over the blending operation and affects the qualities of the finished gasoline, it is appropriate to include the product owner within the definition of oxygenate blenders and to impose responsibility for regulatory compliance on that party with substantial control over the quality of the final product.

As a result of these definitions, there may be situations where more than one person meets the definition of refiner or oxygenate blender for a single refinery or oxygenate blending facility. For example, at an oxygenate blending facility there may be one person who owns the RBOB and oxygenate and causes those products to be combined to produce reformulated gasoline (who also could be a distributor or reseller), another person who owns the gasoline storage tanks in which the RBOB and oxygenate are combined (who also could be a truck or terminal carrier), and still another person who operates and controls the blending equipment at the facility on a day-to-day basis. Each of the parties described in this example independently meets the definition of oxygenate blender for the oxygenate blending facility described. A similar scenario, with more than one person meeting the definition of refiner, is possible in the case of a refinery.

The final rule provides that each person meeting the definition of refiner or oxygenate blender is independently responsible that standards and other requirements that attach to a refining or oxygenate blending operation must be met. This is the same requirement that attaches in other motor vehicle fuel regulatory programs. For example, under the gasoline lead phasedown program, in cases where the lead phasedown standard is violated as a result of excess average lead content of gasoline produced, EPA holds each person meeting the refiner definition liable; and under the gasoline volatility program, in cases where the volatility standard is violated as a result of improper oxygenate blending, EPA holds each person meeting the definition of oxygenate blender liable.

However, as in other motor vehicle fuel regulatory programs, EPA intends to exercise its enforcement discretion and not seek to hold liable parties meeting a definition in relation to a batch of gasoline that chose to jointly meet the requirements of the final rule. In practice, therefore, each requirement pertaining to an individual batch of gasoline must be met only once. For example, the determination of properties, independent sampling and testing, compliance audits, testing of RBOB, record keeping and reporting requirements, and oxygenate blender quality assurance programs need not be met separately by each person who meets the refiner or oxygenate blender definition with respect to a specific batch of gasoline or blendstock. Rather, within the exercise of EPA's enforcement discretion, each party is individually responsible for ensuring that each requirement is met at least once for any specific batch.

For example, EPA would exercise its enforcement discretion and not seek to impose liability on a party that meets the definition of oxygenate blender that does not separately sample and test the gasoline produced or separately submit reports to EPA relating to a specific batch of gasoline, as long as some party with equivalent standing (an oxygenate blender) does conduct the required sampling and testing and does file a valid annual report. However, each person meeting the definition of oxygenate blender in this example is individually responsible that the required sampling and testing occurs and that the required reports to EPA are submitted.

EPA anticipates that the people involved in a refining or oxygenate blending operation will discuss among themselves who will be responsible for each of the regulatory requirements. In most cases, EPA anticipates that the product owner will take the lead in satisfying requirements, though the allocation of these responsibilities is strictly within the province of the regulated parties involved. If a refinery or oxygenate blending facility requirement is accomplished by one person, EPA will consider the requirement to have been accomplished by each person who meets the definition of refiner or oxygenate blender. If a refinery or oxygenate blending facility requirement is not properly accomplished, however, EPA will consider the lapse to be a violation by each person who meets the definition of refiner or oxygenate blender. Similarly, if a standard applicable to the refinery or oxygenate blending facility is not satisfied, EPA will consider each person who meets the definition of refiner or oxygenate blender to have failed to satisfy the relevant standard.

EPA anticipates that reformulated gasoline and RBOB will be produced exclusively, or almost exclusively, at the refinery at which the blendstocks are produced from crude oil, due to the complexities inherent in producing reformulated gasoline and RBOB. EPA believes it will be very difficult for a downstream party to obtain blendstocks with the specific mixtures of properties such that the blendstocks may be blended together to produce gasoline meeting the standards for reformulated gasoline or RBOB.

However, if such downstream blending-refining does occur, all requirements attaching to refiners apply to all parties meeting the definition of a "refiner". Note that, if blendstocks are combined with reformulated gasoline, the reformulated gasoline standards must be met on the basis of the volume and properties of the blendstocks only and compliance may not rely on the properties of the reformulated gasoline to which the blendstock is added. In addition the resulting reformulated gasoline/blendstock mixture must meet all reformulated gasoline standards. In the event any party attempts downstream blending-refining of reformulated gasoline or RBOB, EPA intends to scrutinize the operation closely.

Commenters expressed concern that, where the oxygen standard is being met on an average basis, all persons who satisfy the oxygenate blender definition may not have access to the information necessary to know that this standard is being met in fact. This issue was of particular concern for oxygenate blenders who are carriers, where the normal business practice is to blend oxygenate according to the instructions of the product owner-oxygenate blender.

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[60] Section 80.2(h) defines refinery as "a plant at which gasoline is produced."

Section 80.2(i) defines refiner as "any person who owns, leases, operates, controls, or supervises a refinery."

Section 80.2(ll) defines oxygenate blending facility as "any facility (including a truck) at which oxygenate is added to gasoline or blendstock, and at which the quality or quantity of gasoline is not altered in any other manner except for the addition of deposit control additives."

Section 80.2(mm) defines oxygenate blender as "any person who owns, leases, operates, controls, or supervises an oxygenate blending facility, or who owns or controls the blendstocks or gasoline used or the gasoline produced at an oxygenate blending facility."

The final rule provides that oxygenate blenders will be held liable, *inter alia*, for reformulated gasoline produced for averaged compliance that is determined to exceed the minimum and/or maximum standards. The final rule also prohibits the sale, by any person, of gasoline that violates, *inter alia*, a refiners' averaged compliance with the standards.

Oxygenate blenders have direct control over whether a specific fuel meets the minimum and/or maximum requirements of the reformulated gasoline program. Blenders have no control over whether that fuel is being produced to comply with per-gallon or averaged standards. Where gasoline is designated for oxygen compliance on a per-gallon basis, the blender may take steps to ensure that 2.0 weight percent oxygen is added to each batch of gasoline produced. Where gasoline is produced to averaged compliance, the blender is precluded from independent knowledge of whether the average will be met.

EPA appreciates this dilemma faced by parties downstream of a refiner achieving compliance on average. However, EPA believes both that the requirements that blenders be held potentially liable for selling averaged gasoline that fails to meet the averaged standard is necessary and that adequate safeguards are available. Potential liability is necessary to effectively prevent the sale and distribution of non-complying product by downstream parties which possess any opportunity to prevent the product from being released into the environment.

For example, if a carrier-oxygenate blender receives instructions to add less than 2.00 weight percent oxygen to RBOB (the per-gallon oxygen standard), the carrier should obtain the assurance of the product owner, in writing if possible, that the reformulated gasoline being produced meets the oxygen standard on average. If a violation of the average oxygen standard occurs involving gasoline produced by the carrier-oxygenate blender, and the carrier-oxygenate blender can demonstrate that it made this inquiry in good faith and received an appropriate assurance, EPA will exercise its enforcement discretion and not hold the carrier-oxygen blender liable for the standard violation unless the carrier knew, or should have known, the oxygen standard would not be met on average. This type of inquiry and assurance would be no defense for oxygenate blended outside the per-gallon minimum/maximum standard, however.

I. Prohibitions, Liabilities and Defenses

1. Prohibitions

The final rule contains certain prohibitions that apply to all parties in the gasoline distribution network, that address the per-gallon minimum and maximum standards for reformulated gasoline and the restrictions related to the time and place of use for reformulated gasoline. Also prohibited for every party are, *inter alia*, the addition of oxygenate to reformulated gasoline (except reformulated gasoline that is designated for use in an oxygenated fuels program during the oxygenated fuels control period); the combining of reformulated gasoline produced using ethanol with reformulated gasoline produced using another oxygenate during the period May 1 through September 15; and (during 1995 through 1997) the combining of reformulated gasolines or RBOBs subject to complex model standards unless the constituent reformulated gasolines or RBOBs have identical baselines.

The final rule also prohibits all parties, other than retailers and wholesale purchaser-consumers, from combining reformulated gasoline or RBOB subject to simple model standards with reformulated gasoline or RBOB that is subject to complex model standards during 1995 through 1997.

The rational for these prohibitions are discussed separately in the preamble sections dealing with the specific topics which result in the prohibitions.

EPA received comments on its proposal to prohibit any party from transporting, storing, dispensing, selling, or supplying reformulated gasoline that does not meet a reformulated gasoline certification. The commenters were concerned that only gasoline that meets all reformulated gasoline standards would be "certified," and that, as a result of averaging, parties downstream of the refinery would have no way of knowing if a particular batch of gasoline was produced to meet standards.

EPA agrees with this comment, and has modified the final rule to limit the downstream prohibition involving reformulated gasoline properties to the per-gallon minimum and maximum standards that apply to all reformulated gasoline, regardless of whether the gasoline is produced to the per-gallon or average standards.[61] As a result, downstream parties may determine if any particular gasoline batch meets the per-gallon minimums and maximums through sampling and testing. Moreover, EPA inspections conducted downstream of the refinery/importer will monitor compliance with the per-gallon minimums and maximums, and not compliance with the standards that apply to refiners and importers.

EPA's proposal would also prohibit refiners and importers from producing or importing reformulated gasoline that does not meet reformulated gasoline standards. Several commenters observed that the production alone of reformulated gasoline or RBOB that fails to meet required standards does not cause environmental harm, because the product may be corrected before it leaves the refinery. EPA generally agrees with this comment, and has adjusted the regulatory language to clarify that the prohibition against the production of reformulated gasoline that fails to meet standards applies only to gasoline that is intended for sale or use. During the course of any inspection at a refinery or import facility, EPA will rely on the documentation used by a refiner or importer to determine if any particular gasoline is "finished" and therefore is intended for sale or use, or is an "unfinished" product for which the refiner or importer intends additional blending.

Accordingly, the final rule prohibits the manufacture, sale, offering for sale, distribution, dispensing, supplying offering for supply, transporting or causing the transportation by refiners and importers of finished gasoline "intended" for sale or use where such gasoline fails to meet reformulated gasoline standards. This approach is consistent with EPA's approach under the Lead Phasedown, Fuel Volatility and Diesel Desulfurization Programs.

2. Liabilities

a. *General.* The final rule provides that where the gasoline contained in a storage tank at any facility owned, leased, operated, controlled or supervised by any refiner, importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer is found in violation of the prohibitions, most parties involved in the chain of distribution upstream of the facility found in violation are presumed liable for the violation.

Carriers are presumed liable for violations arising from product under

[61] For example, the refiner/importer benzene standard is 1.00 volume percent if met on a per-gallon basis, or 0.95 volume percent if met on average with a 1.30 volume percent per-gallon maximum. As a result, no gallon of gasoline may have a benzene content greater than 1.30 volume percent, regardless of whether the gasoline is produced or imported to the per-gallon or average standard. This 1.30 benzene maximum thus may be enforced against downstream parties.

the control and/or custody of the carrier at the carrier's facility, and for violations at any facility where EPA demonstrates that the carrier caused the violation. Carriers who meet the definition of refiner or oxygenate blender have the same liabilities and defenses as any other refiner or oxygenate blender.

The final rule also provides defenses against liability for each person presumed liable. These defenses are discussed below. For a more detailed discussion of the rationale for the liabilities and defenses established by this rule, see EPA's proposal at 57 FR 13470–13473 (April 16, 1992).

One commenter stated that where gasoline in a storage tank is in violation of the regulations, EPA should either narrow the range of persons presumptively liable or expand the availability of affirmative defenses. The comment is based on the normal industry practice of commingling products in common storage tanks, the number of fuel manufacturers that would be involved, the likelihood of commingling, the absence of quantitative thresholds, and the absence of a requirement that individual parties exercise sufficient control over the contents of the tank. Another commenter queried what distinguishes this program from other fuels programs which did not impose such presumptive liability.

EPA has had extensive experience in enforcing other motor vehicle fuel programs under 40 CFR part 80, including the unleaded gasoline and gasoline volatility programs and the recent diesel sulfur program. Each of these other fuels programs include presumptive liability schemes that are very similar to the presumptive liability scheme proposed for reformulated gasoline.

The liability and defense provisions of this rule are structured similarly to those adopted by EPA in its prior motor vehicle fuel programs, including the controls on leaded and unleaded gasoline, gasoline volatility and diesel fuel desulfurization. For those programs, EPA's regulations identify various persons who are presumed liable when violations are detected at various points in the motor fuel distribution system. For example, 40 CFR 80.28 identifies those persons responsible for violations of the gasoline volatility regulations when a violation is detected at refiner or importer facilities (§ 80.28(a)), at carrier facilities (§ 80.28(b)), at branded distributor facilities, reseller facilities, or ethanol blending plants (§ 80.28(c)), at unbranded distributor facilities and ethanol blending plants (§ 80.28(d)), at branded retail outlets or wholesale purchaser-consumer facilities (§ 80.28(e)), and at unbranded retail outlets or wholesale purchaser-consumer facilities (§ 80.28(f)). In general, all persons who could have caused a violation at a facility are presumed to be liable for the violation detected at the facility. At branded facilities the refiner is also presumed liable based on their ability to exercise a degree of control at these facilities. Various affirmative defenses are afforded to persons presumed liable, and in all cases the presumptions of liability are rebuttable. 40 CFR 80.28(g). The affirmative defenses typically involve showing (1) that the person did not cause the violation, (2) that they either conducted tests showing the gasoline was in compliance when they transferred it to the next person in the distribution system, or that they received proper documentation when they received the gasoline and conducted a sufficient quality assurance sampling and testing program. Additional elements of an affirmative defense must be shown by refiners when a violation is detected at a branded outlet. A detailed discussion of the reasons for the gasoline volatility liability defense provisions can be found at 54 FR 11872 (March 22, 1989).

The regulations adopted for the reformulated gasoline program follow this same general structure. For example, if the gasoline in a storage tank, or at any other point in the distribution system, is found to be in violation of the requirements, then the following persons are presumed liable: All persons (including carriers) who own, lease, operate, supervise or control the facility; all persons other than carriers who manufactured, sold, transported, or dispensed the gasoline found at the facility; carriers who dispensed, transported, supplied or stored the gasoline where EPA can show they caused the violation; and the refiner or importer whose brand name is displayed at the facility, if any. They will not be deemed liable if they can show (1) they did not cause the violation, (2) that product transfer documents indicate the gasoline in question met all relevant requirements, and (3) they conducted a sufficient quality assurance program. Additional elements must be shown by refiners or importers for violations at branded facilities.

The rationale for assigning a presumption of liability to all contributors to a batch of noncomplying fuel is that, as with gasoline volatility and the other motor vehicle fuel programs, EPA is in a particularly poor position to know who caused a violation that is detected at a point in the distribution system. In the case of a violation found at a retail station, for example, the retailer often will say it has no control over the quality of the gasoline delivered by the distributor (or by more than one distributor) and did nothing to cause the violation; the distributor will say it has no control over the quality of the gasoline provided by the terminal and did nothing to cause the violation; the terminal will say it only supplies the gasoline received from the pipeline and did nothing to cause the violation, etc. EPA normally lacks the information necessary to establish the cause of the violation because its inspectors were not present when the gasoline in question moved through the distribution system; yet EPA has a sample that is, in fact, in violation.

In contrast to EPA, the parties responsible for the facility, or for supplying the gasoline contained at a facility found to be in violation are, collectively, in the best position to determine the cause of the violation. It is these parties who are presumed liable. The presumption of liability normally has the desired effect of forcing the presumptively liable parties to cooperate in identifying the violation's cause, which both resolves the issue of liability for the party or parties actually responsible for the violation and establishes defenses against liability for parties not responsible. In addition, branded refiners or importers are presumed liable based on the degree of control such refiners or importers have over gasoline that is sold under their brand name.

The likelihood of commingling, the absence of quantitative thresholds, the degree of control exercised by the branded parties presumed liable, and the reasonableness of a presumption of liability for parties involved with the production or distribution of the gasoline discovered in violation is the same for the reformulated gasoline program as it is for the gasoline volatility and other motor vehicle fuel programs. In both cases, EPA is confronted with a fungible gasoline distribution system, with various persons either involved with the production or distribution of the noncomplying gasoline, or exercising some degree of control over the downstream facility where the violation was detected. In both cases EPA is not reasonably able to locate the cause of the violation, and the regulations reasonably require the parties involved with the noncomplying gasoline and

facility to bear the burden of locating the cause of the violation.

EPA has included in the final rule liability for branded importers for violations found at facilities at which that importers' brand name is displayed. This liability is parallel with the liability presumption that attaches to branded refiners for violations found at branded facilities. This change from the proposed liability scheme is included because the absence of liability for branded importers created a potential gap in the regulatory scheme. If any party meets the definition of a branded importer, it is reasonable that they be treated equally with branded refiners.

Moreover, EPA does not believe the scope of the liability provisions should be narrowed. The scope of parties presumed liable is designed to ensure that each party in the reformulated gasoline production and distribution system with any opportunity to affect the quality of the fuel may be held accountable for noncomplying fuel. Otherwise, the substantial economic incentives associated with cheating under this program would result in the exploitation of gaps in the scope of coverage.

As a result, EPA declines to adjust the range of parties presumptively liable for commingled fuels violations or to adjust the affirmative defenses.

Certain commenters requested clarification of the volume of gasoline a party must contribute to a non-complying storage tank to create the presumption of liability. EPA's April 1992 proposal would hold each party responsible for a violation detected at a storage tank, or at any other point in the gasoline distribution system, if the party was involved with any of the noncomplying gasoline. This would include distributors for the most recent delivery, and in most cases would also include distributors for the several prior deliveries. See 57 FR 13471 (April 16, 1992). Commenters requested clarification from EPA as to what was meant by "several deliveries."

EPA has retained the proposed language that assigns presumptive liability to any party that contributes "any gasoline" to the noncomplying gasoline in the batch or storage tank. There is no single *de minimis* volume that would be appropriate in every situation. In addition, there is no single number of deliveries that would identify the source for all noncomplying gasoline present in the batch or storage tank yielding the noncomplying sample. EPA will evaluate the issue of non-causation as a result of a small volume contribution to a non-complying storage tank on a case-by-case basis.

One commenter observed that a downstream party receiving noncomplying product would be obliged to store the product until the owner of the product determines a solution. The commenter recommended that a party storing nonconforming product that has been properly re-documented stating its actual characteristics should not be penalized.

EPA generally agrees with this comment. The final rule prohibits, *inter alia*, the distribution, transportation, storage or sale (or offer to sell) of noncomplying product represented as reformulated gasoline and intended for sale or use in any covered area. EPA will assume, absent countervailing evidence, that all gasoline found in the United States is intended for domestic sale or use and thus subject to the reformulated gasoline or anti-dumping rules. Countervailing evidence to overcome this assumption with regard to a specific tank of gasoline would include a showing of the following: demonstrate that the gasoline is clearly identified as noncomplying product; that the noncomplying gasoline is segregated from other gasoline; that the storage tank containing the gasoline has been clearly designated as product unavailable for sale or distribution, that the noncomplying gasoline in fact has not re-entered the distribution system; and that the gasoline is redirected toward a process of bringing the gasoline into compliance. A party storing noncomplying gasoline meeting this burden would not be in violation of the prohibitions contained in today's rule.

b. *Carriers.* EPA received a variety of comments objecting to the imposition of presumptive liability on carriers.

Several commenters argued that the prohibitions contained in section 211(k)(5) of the Act identify refiners, blenders and marketers as the regulated parties under the reformulated gasoline and anti-dumping programs, but does not specifically name carriers.

Section 211(k)(1) authorizes EPA to "promulgate regulations * * * establishing requirements for reformulated gasoline * * *." This broad grant of authority is the principal source of authority for the regulatory structure adopted for the reformulated gasoline program, along with the various specific requirements and authorizations found in other paragraphs in section 211(k). EPA has determined, in exercising this authority, that the most appropriate structure for this program is one which provides for the regulation of reformulated gasoline from its point of production or importation to its eventual transfer to the ultimate consumer.

First, EPA's experience with various other motor vehicle fuel regulations, promulgated under section 211(c) of the Act, indicate that this is critical to the success of the program. This is based on the fungible nature of the gasoline distribution system, the complex interrelationships between the various parties involved in producing and marketing gasoline, and the large number of different parties that will be involved in bringing reformulated gasoline to the market. Second, the reformulated gasoline program includes a complex mixture of requirements, involving the regulation of several different gasoline components as well as the emissions performance of the gasoline. A cradle-to-grave approach is necessary to ensure that the air quality benefits from this program are actually achieved in use, given the large number of parties who will have custody or control of a batch of reformulated gasoline, and the potential that their actions could adversely affect the emissions reductions expected from the reformulated gasoline program. This could occur, for example, because the quality of gasoline has been changed, or because it has been dispensed or used at an improper time or place. For these reasons, EPA believes that it is proper to regulate all parties involved with the production, distribution and sale of reformulated gasoline.

At the same time, EPA has assigned different responsibilities to different parties in the production and distribution system. EPA proposed and has decided to adopt final rules including carriers as a regulated party, and assigning them responsibilities commensurate with their unique role in the gasoline distribution system. EPA believes this is a reasonable exercise of its broad grant of authority under section 211(k)(1).

EPA has determined that the regulation of carriers—pipelines, barge operators or truck carriers—is necessary to accomplish the goal of cradle-to-grave oversight monitoring and enforcement. This determination is based on the potential for carriers to cause violations of the reformulated gasoline regulation, the need to impose a duty on carriers to exercise care in transporting or storing reformulated gasoline, and the need for EPA to be able to determine the source of violations within the program. For example, carriers possess the potential to cause violations of this program by commingling inappropriate grades of gasoline, delivering conventional gasoline into a covered area, or by carrying non-VOC controlled gasoline in

a storage facility over from a non-VOC control period into a VOC control period and selling or distributing that product. In each of these examples, the carrier would be directly responsible for causing the violation. EPA believes that the presumption of liability proposed in the final rule effectively imposes a duty of care on carriers to avoid these violations. Further, as discussed in the economic analysis accompanying this final rule, the costs associated with carrier compliance are reasonable and have been designed to provide carriers with the minimum oversight costs necessary to accomplish the goals of this program.

Certain carriers argue that Congress did not authorize the regulation of carriers in this program as the prohibition found in section 211(k)(5) of the Act only applies to refiners, importers, distributors and marketers, but not carriers. Therefore, it is argued, EPA may not regulate carriers.

EPA disagrees with this argument. First, it misinterprets the prohibitions adopted by Congress in section 211(k)(5). The statutory prohibitions found in that paragraph are self-effectuating once EPA promulgates regulations establishing the requirements for certification of reformulated gasoline. Section 211(k)(5) does not limit EPA's authority to establish various additional regulatory prohibitions, as necessary, in the exercise of EPA's rulemaking discretion under section 211(k)(1). It also does not limit EPA's authority under section 211(k)(1) to regulate, as appropriate, the activities of various persons in the gasoline distribution system, including carriers.

In any case, EPA believes that carriers are reasonably included in the term "marketers" as used in section 211(k)(5). That term is vague and ambiguous, and EPA reasonably interprets it to include all persons regulated by EPA in the reformulated gasoline program including carriers.

The Act does not define the term marketer for purposes of section 211(k), and while that term is used in various other provisions of the Act, it is only defined for purposes of one unrelated provision, section 324 (involving responsibility for gasoline vapor recovery systems at small volume retail outlets). The term generally appears to indicate a broad category of persons involved in the gasoline distribution system, a generic phrase with a catch-all meaning. See sections 211(h)(4), 211(1) and 211(m)(2). As used in those provisions, the scope of the term may be broader or narrower, depending on how detailed Congress made the list of parties covered by each provision. For example, the long list of parties referenced in section 211(h)(4) makes it clear that "marketer" as used there means an undefined category of persons other than distributors, blenders, resellers, carriers, retailers, or wholesale purchaser-consumers, while in sections 211(1) and (m)(2) the term means an undefined category of persons other than refiners. The legislative history for section 211(k) fails to shed any light on Congress' intent.

The generally accepted meaning of the term "marketer" is "one that deals in a market." Webster's Ninth New Collegiate Dictionary (1990). A carrier would reasonably fall within this definition. Given the lack of a clear definition in the Act for this vague term, the indications that Congress intended it to have a somewhat broad, catch-all meaning, and the reasons provided above supporting EPA's inclusion of carrier's as regulated parties in the reformulated gasoline program, EPA has reasonably determined that carriers are included in the term "marketer" as it is used in section 211(k) of the Act.

Various commenters claimed that it was inappropriate to impose a presumption of liability on carriers, based on their unique circumstances. They noted that carriers do not take title to or own the gasoline, have contractual obligations to maintain the integrity of the shipment, only act in accordance with instructions from the product owner, and have incentives to not tamper with the product, as it would expose them to liability and would prejudice their relationships with both the shipper and purchaser. Commenters stated that carriers lack any economic incentive to violate the reformulated gasoline requirements, and any action that does not violate these requirements is only in response to the gasoline owner's instructions. Commenters also stated that carriers cannot refuse such instructions except for clear violations of the law.

Barge operator-carriers noted that the risk of accidental contamination for barge operator-carriers is virtually nonexistent due to contract obligations to maintain cargo integrity and the product testing that occurs before and after shipping. They also argued that the volume of product in a barge-tank would dilute any trace contaminants such that there was no practical risk of a violation of the reformulated gasoline requirements from contamination.

EPA recognizes that carriers occupy a role that is somewhat unique in the gasoline distribution system. In general, EPA agrees that there is limited economic incentive for carriers to tamper with the quality of gasoline, in that carriers do not own the gasoline they ship or store and would not profit by taking advantage of the price differential between complying and noncomplying gasoline. At the same time, there are still significant opportunities for carriers to directly cause violations of the reformulated gasoline program. For example, a carrier's delivery territory may span a boundary between an area requiring reformulated gasoline and an area that may receive conventional gasoline. Misdelivery of conventional fuel into the reformulated gasoline covered area would be a violation of the prohibitions of the reformulated gasoline program. Other situations where a carrier can cause a violation include a terminal-carrier or truck-carrier who mixes conventional gasoline and reformulated gasoline and transfers the resulting gasoline as reformulated; who mixes reformulated gasoline designated as VOC-controlled with non-VOC-controlled gasoline and transfers the resulting gasoline as VOC-controlled; who delivers gasoline designated for use in VOC-Control Region 1 to a retail outlet located in VOC-Control Region 2; who mixes oxygen program reformulated gasoline (OPRG) and non-OPRG reformulated gasoline and transfers the mixture as OPRG; or who mixes simple and complex model reformulated gasoline. In these examples, EPA would hold the carrier liable if the carrier improperly delivered the gasoline or mixed the gasolines that should have been segregated. Note that the gasoline owner in each of these examples also would be presumed liable for the violation.

Based on these circumstances, the presumption of liability assigned to carriers is much more limited than that assigned to any other regulated party. Like other parties, a carrier is liable for violations that occur at its own facility. However, unlike other regulated parties, carriers are not liable for violations detected at other facilities, unless EPA can show that the carrier caused the violation. This is a significant reduction in the scope of the presumption of liability as compared to the scope proposed for carriers, and reflects EPA's balancing of the unique characteristics noted by carriers and the need to prevent carriers from adversely affecting the characteristics of reformulated gasoline. This parallels the presumption of liability for carriers adopted by the Agency in the gasoline volatility regulations, and approved by the court in *National Tank Truck Carriers, Inc.* v.

U.S.E.P.A., 907 F.2d 177 (D.C. Cir. 1990).

EPA acknowledges that carriers may operate on the instructions of the product owner. In fact, several commenters suggested that carriers are obligated to not deviate from the owner's instructions regardless of whether those instructions are consistent with the reformulated gasoline rules.

However, the Interstate Commerce Commission [62] has advised EPA that carriers are not obligated to store or transport gasoline in a manner that violates applicable laws. The ICC view of carrier obligation allows carriers to self-determine which loads they will store or carry. The ICC also observed that a carrier's obligation to accept tenders is superseded by an obligation to comply with applicable law, including regulations that implement the Clean Air Act Amendments of 1990. Accordingly, carriers are not placed in an untenable position by refusing to store or transport gasoline that does not comply with the reformulated gasoline requirements.

c. *Carriers acting as refiners or oxygenate blenders.* The final rule provides for a presumption of liability for violations found downstream of a refinery or oxygenate blending facility for all persons who meet the definition of refiner or oxygenate blender, including carriers who meet this definition.[63]

A presumption of liability is necessary in the case of a carrier acting as a refiner or oxygenate blender because in both cases the carrier plays a significant role in the actions that establish or change the quality of reformulated gasoline. For example, the practice of splash-blending oxygenates and gasoline in gasoline delivery trucks is a common form of gasoline blending, and the trucks used for splash blending often are operated by truck carriers. Frequently, the carrier truck driver directly controls the volumes of gasoline blendstock and oxygenate that are combined in the truck. In consequence, the carrier is directly responsible for the quality of the finished gasoline in such a splash-blending operation.

Commenters observed that in other fuel regulatory programs, carriers acting as refiners or oxygenate blenders are specifically excepted from presumptive liability for violations determined at facilities downstream from the refinery or oxygenate blending facility. This is not accurate. Carriers who meet the refiner or oxygenate blender definition are treated the same under the reformulated gasoline regulations as under other motor vehicle fuel programs. The definition of a "refiner" is consistent throughout EPA's fuel regulatory programs, and in all these programs a carrier who meets the refiner definition is subject to the same liability as any other person who meets the refiner definition. Oxygenate blenders are simply a sub-category of refiners who produce gasoline only by oxygenate blending. As a result, carriers acting as oxygenate blenders are regulated consistently with any other oxygenate blender under the program.

Carrier-commenters argued that the owner of the gasoline and oxygenate used in an oxygenate blending operation should be responsible for meeting the requirements for sampling and testing, compliance record keeping, reporting and auditing, because only the owner can remedy violations. For the reasons discussed in the refiner and oxygenate blender section of this preamble, EPA has determined that each person who meets the oxygenate blender definition is individually responsible for ensuring that the requirements that attach to an oxygenate blending operation are met. However, as discussed above, carrier-oxygenate blenders and product owner-oxygenate blenders may reach agreements on the allocation of responsibilities for meeting the oxygenate blending requirements within the scope of EPA's enforcement discretion.

3. Defenses

The final rule specifies that a regulated party may rebut the presumption of liability by demonstrating (1) that it did not cause the violation, (2) that the product transfer documents account for all the gasoline in question and indicate that the product complied with all applicable standards, and (3) that the party conducted an acceptable quality assurance program of periodic sampling and testing.

When a non-complying product is found at a facility operating under a refiner's brand name, the refiner must also demonstrate additional elements for a valid defense. This includes a showing that the violation was caused by a party in violation of a contractual understanding imposed by the refiner to prevent such action.

The defenses available to regulated parties to rebut the presumption of liability are closely patterned after those adopted for other motor vehicle fuel regulatory programs under 40 CFR part 80, including the gasoline volatility program. The presumption of liability is rebuttable, including the imposition of vicarious refiner liability for violations detected at branded facilities. This regulatory structure is fully consistent with the relevant judicial decisions in this area. *See Amoco Oil Co.* v. *Environmental Protection Agency*, 501 F.2d 270 (D.C. Cir. 1976) ("Amoco II"), and *National Tank Truck Carriers, Inc.*, supra.

As discussed above, carriers not acting as refiners or oxygenate blenders will not be deemed presumptively liable for violations found downstream of the carrier facility, unless EPA shows that the carrier caused the violation. Accordingly, such carriers will not be required to present a defense to such downstream violations. However, where a violation is found at a carrier's facility, the carrier must meet the defense elements in order to avoid liability. Note that EPA intends to exercise its enforcement discretion to permit a carrier to rely on a properly conducted quality assurance program undertaken by the product owner to satisfy the quality assurance program defense element.

One commenter observed that the proposed regulations fail to account for carriers making consecutive deliveries to reformulated gasoline and conventional gasoline markets. Such carriers may appear to have complying and non-complying product on board, according to the commenter.

The issue raised by this commenter applies not only to carriers, but potentially to any party who transports gasoline (e.g., a distributor or reseller). EPA does not consider the transportation of both reformulated and conventional gasoline in the same vehicle to be a violation provided that the destinations of the different products are proper and documented, and the products are properly segregated. Obviously, any party in such a situation should use care that the gasolines are not mixed and are properly delivered.

Various commenters objected to the proposal that refiners would be presumptively liable for downstream violations, including those found at downstream facilities that display the refiner's brand name. One commenter stated that the proposed regulations would impose an irrebuttable presumption of liability in violation of the Due Process clause of the Constitution and *Amoco Oil Co.* v. *EPA*, 501 F.2d 722 (D.C. Cir. 1974) ("*Amoco*

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[62] Per telephone conversation with Charles Wagner, Deputy Director, Operations and Enforcement Section, Office of Compliance and Consumer Assistance, Interstate Commerce Commission.

[63] Liabilities and defenses for refiners and oxygenate blenders are discussed generally in the section on refiners and oxygenate blenders above.

I") and Amoco II. The commenter claimed that the presumption was in practice irrebuttable due to product fungibility and the very high cost of testing required to avoid liability. The commenter also observed that refiners lack sufficient control over downstream parties to lawfully impose vicarious liability on the refiner, in part due to the Petroleum Marketing Practices Act. EPA disagrees.

The defense elements established in the final rule set forth reasonably attainable criteria to rebut a presumption of liability for violations detected downstream of a refinery. The final rule provides that refiners must demonstrate: (1) That the refiner did not cause the violation; (2) that product transfer documents account for all of the gasoline found in violation and indicate that the gasoline met relevant requirements; and (3) that the refinery has conducted a quality assurance sampling and testing program. Where the violation is found at a facility carrying the refiner's brand name, the refiner must show, in addition, that the violation was caused by: (1) An act in violation of law; (2) or an action in violation of a contractual obligation imposed by the refiner; or, (3) the action of a carrier or other distributor not subject to a contract with the refiner but engaged by the refiner for the transportation of gasoline, despite specification or inspection of procedures and equipment by the refiner reasonably calculated to prevent such action.

Addressing the above defense elements seriatim, EPA believes the information necessary to demonstrate that the refiner did not cause a violation determined downstream is reasonably within the control of a refiner through review of its production testing and shipping records. Further, refineries may reasonably provide in contracts with downstream parties for the refiner to conduct quality assurance sampling and testing at the downstream facility. Such testing would be limited to determining that maximum/ minimum and other applicable standards are met.

Branded refiners, as discussed elsewhere in this preamble, are held to a more stringent standard for establishing a defense to downstream violations due to the enhanced control such refiners have over branded downstream parties. First, EPA anticipates that a brand refiner is able to exercise sufficient control over its downstream affiliates so as to prevent any violation other than one arising from a violation of law (other than a violation of this final rule). EPA also anticipates that a branded refiner will possess contractual leverage to be able to impose contractual obligations on downstream parties necessary to assure that violations will not occur under the terms of the contract. Finally, EPA anticipates that a brand refiner will possess contractual leverage to impose handling requirements on non-brand carriers or other distributors not subject to the refiner's brand but engaged by the refiner for the transportation of gasoline, and to allow specification or inspection of procedures and equipment by the refiner reasonably calculated to prevent such action. As with branded downstream parties, EPA believes that a conservative quality assurance program will deter violations downstream of the refiner by creating an atmosphere of oversight presence and quality assurance by the refiner. Further, EPA believes that quality assurance is in the refiner's self-interest in guaranteeing the quality of its product in the market.

One commenter suggested that downstream quality assurance requirements might adversely affect the positions of independent distributors by allowing branded refiners to tighten up on contracts with the independents and force them out of the market. However, EPA believes that most distributors will conduct quality assurance programs regardless of any involvement by branded refiners, because of the distributor's potential for liability for violations that exists independent of the refiner's liability, and because most distributors are concerned about product quality for reasons that are independent of the reformulated gasoline requirements. As a result, EPA does not believe that contractual provisions requiring quality assurance imposed by branded refiners constitute a significant additional burden on distributors. Moreover, the defense provisions related to branded refiners requires contracts only with branded resellers or retailers. As a result, refiners are not required to impose contractual quality assurance provisions on distributors who are not identified with the refiner's brand name.

EPA believes that the result of the final rule's liability and defense scheme is that refiners who maintain careful compliance with this rule and conduct an appropriate quality assurance program over their branded facilities, including periodic sampling and testing, will not be held inequitably liable for violations caused by downstream parties who display the refiner's brand name. Because many of these elements of defense call for the refiner to exercise precaution through normal contractual instruments, EPA anticipates that the cost of these measures will be minimal and consistent with the costs and expenses experienced in the gasoline volatility and lead phasedown programs.

The rebuttable presumption of liability in the reformulated gasoline program is consistent with the holdings in Amoco I and Amoco II. The liability provision of the unleaded gasoline regulations that was challenged in Amoco I and held by the Court to be improper imposed strict vicarious liability on parties upstream of a retail facility at which a violation had been determined. The Amoco I court held that any presumption of liability must be rebuttable. Amoco II held that a presumption of refiner liability must be rebuttable for violations resulting from the sale of leaded gasoline as unleaded by retail facilities owned and leased by the refiner. As a result of the Amoco I and Amoco II decisions, the unleaded gasoline regulations were revised to allow refiners to rebut a presumption of liability even where the refiner owned or leased a retail outlet found in violation.

All presumptions of liability contained in the reformulated gasoline regulations are rebuttable. As in other 40 CFR part 80 fuels programs (unleaded gasoline, volatility, and diesel sulfur), the final reformulated gasoline rule provides for more stringent refiner defense elements in the case of a violation at a facility displaying that refiner's brand name, as opposed to a case where the facility in violation does not display the refiner's brand name. Nevertheless, the final regulations provide that the refiner in such a brand-name-facility case may rebut a presumption of vicarious liability by showing that the violation was caused by a party other than the refiner. Accordingly, the final rule does not create strict vicarious liability by any party, and is consistent with the teachings of Amoco I and Amoco II.

One commenter stated that a retailer could prove the first retailer defense element (that the retailer did not cause the violation) only by proving the second retailer defense element (that product transfer documents that meet relevant requirements account for all gasoline purchased and sold by the retailer), and therefore the element should be deleted. EPA agrees that one of the most common ways retailers show non-causation is by identifying the source of all gasoline present at the retail outlet, and showing that this product was represented by the distributor(s) or reseller(s) to meet all relevant requirements. In enforcing other motor vehicle fuels programs where retailers have often used this type

of evidence to proffer a defense, however, EPA's experience has been that retailers are rarely found to be ultimately liable unless the retailer made decisions to commingle gasolines in the retail tank that should have been segregated. It is possible that a retailer's proferring of product transfer documents may be inadequate to establish a complete defense to an allegation of a violation. For instance, the retailer may have knowledge, independent of the product transfer documents, that should lead the retailer to understand that the gasoline's qualities are not as represented on the documents. In such a circumstance, the retailer would be required to show by means other than the documents that it did not cause the violation. Accordingly, the elements of defense for a retailer may overlap, and as a result are not redundant. The adequacy of a defense will be determined on a case-by-case basis.

One commenter objected that a party would have to test gasoline received by the party following each receipt, and test the gasoline delivered to other parties following each delivery, in order to absolutely prove the party did not cause a violation for which the party could be presumptively liable. EPA agrees that the most conclusive proof for non-causation for any possible allegation of liability would be test results of the type described by the commenter. In fact, this is the type of testing that commonly is carried out by the parties where large volumes of gasoline are involved. Refiners and importers conduct such testing of the gasoline they produce or import, as do other parties such as pipelines and terminals when receiving or shipping large-sized batches of gasoline. In situations where the volume of gasoline received or shipped/delivered is small, EPA does not anticipate that every-batch testing is needed to show non-causation. EPA believes that parties who deal in small-sized gasoline batches are able to effectively monitor the quality of gasoline received and shipped/delivered and establish the cause of violations that occur through careful attention to program requirements, discretion in the selection of business partners, and good quality control practices including a program of periodic sampling and testing. This belief by EPA is based on its experience in enforcing other motor vehicle fuels programs.

One commenter stated that the requirement of a quality assurance program in addition to all other testing and audit requirements, is redundant.

EPA believes that quality assurance sampling and testing is essential so that there is an incentive for parties to adequately monitor the quality of gasoline received and shipped/delivered. The principal purpose of quality assurance sampling and testing, in EPA's view, is to alert a party to gasoline quality problems so that the party may correct the problem and the conditions that caused the problem before EPA documents any violations. Other enforcement mechanisms that are included in the reformulated gasoline program are important for their own reasons, but EPA does not believe they eliminate the need for sampling and testing.

In addition, the existence of an adequate quality assurance program is a separate element of the defense to a presumption of liability because EPA does not feel confident that a party did not cause a violation absent such evidence. For example, even if one party can show that another party was the apparent or primary cause of a downstream violation, that does not on its own show that the first party did not also cause the violation. The fungible nature of the gasoline distribution system could well lead to situations where more than one and perhaps several parties contributed to a violation detected downstream. Absent a sufficient quality assurance program, production of proper transfer records, and any other evidence needed to show that the first party did not cause the violation, EPA does not believe that the first party has properly rebutted the presumption of liability. A quality assurance program, which involves sampling and testing the gasoline while it is in the hands of a party, is reasonably considered a necessary, minimum element of properly showing that a party did not cause a violation and thereby rebutting a presumption of liability.

Refiners, importers and oxygenate blenders are required to conduct sampling and testing under the regulations, as well as have independent audits performed. For those parties, the required sampling and testing may well satisfy the quality assurance element of a defense to presumptive liability and is therefore not redundant. For those parties it only calls for additional sampling and testing where the required sampling and testing would not be adequate to satisfy that element of the defense. For all other parties, the quality assurance element of a defense is not redundant as there is no required sampling and testing for other parties.

Nevertheless, sampling and testing by parties other than refiners, importers, and oxygenate blenders is not required by the final rule, but rather is a voluntary defense element only. If a party believes that no violations will occur as a result of other program requirements, the party could choose to avoid a quality assurance sampling and testing program. Such a decision would, however, increase the risk of violation attributable to the party. Without a quality assurance sampling and testing program a party would have scant basis for knowing if the gasoline it receives and ships or delivers meets standards. In addition, in the event the party's confidence is misplaced and EPA documents a violation for which the party is presumed liable, the party would be unable to establish a defense against that liability.

A commenter requested that EPA define the frequency of sampling and testing that EPA would consider sufficient to satisfy the quality assurance defense element. Another commenter recommended that EPA should base enforcement actions exclusively on EPA testing using regulatory test methods and not on oversight sampling and testing by regulated parties.

EPA is reluctant to specify the details of a "sufficient" quality assurance sampling and testing program, because the type of program that is sufficient in any situation depends on the particular facts of that situation. In addition, EPA believes regulated parties are closest to their own operations and are therefore in the best position to judge the program that is adequate. Typically, such a program should include sampling and testing of a representative sampling of the gasoline the party receives and ships or delivers; identification of any sample that is in violation of relevant standards, and for such a sample, correction of the violation and the conditions that caused the violation; and an increased rate of sampling and testing when conditions indicate an increased likelihood of violations (e.g., violating samples found).

In the case where a violation is detected through a party's quality assurance program, and the party corrects both the violation and the conditions that caused the violation without any involvement by EPA, EPA generally forgoes any enforcement on the basis of the party's test results. If the party does not follow-up on violations in this manner, however, EPA may initiate an enforcement action on the basis of the party's test results.

Carrier-commenters objected to the quality assurance sampling and testing defense element as applied to carriers. Commenters stated that a carrier is in a uniquely weak position in the gasoline distribution system to verify the

characteristics of product received in order to rebut an assertion that the carrier caused a violation.

EPA recognizes that the term "carrier" covers an array of carriage and distribution operations. Pipelines, barge operations, ship operations, tank trucks, and storage facilities may all meet the definition of a carrier. Each type of carrier has unique capacities for conducting quality assurance sampling and testing programs. For instance, pipelines, barge and ship carriers, and storage facilities typically deal with large volumes of gasoline. EPA believes that these high volume operations already conduct sampling and testing programs during the normal course of business that normally will satisfy the quality assurance defense element. In fact, commenters observed that barge carriers typically sample and test loads both before and after shipment to ensure the integrity of their product.

The unique circumstances of tank truck carriers have been considered in the final rule. Truck carriers, like other carriers, will be asked to present evidence of a quality assurance program only where EPA documents a violation at the carrier's facility.[64] In addition, truck carriers may rely on a properly conducted quality assurance program carried out by another party over the carrier's operation (most likely the product owner). Moreover, quality assurance sampling involving gasoline delivery trucks may be accomplished using samples collected at retail stations following truck deliveries (discussed more fully above), providing carriers with additional flexibility in meeting this defense element. It is also relevant that under the existing gasoline volatility and diesel sulfur programs carriers, including truck carriers, are required to conduct quality assurance sampling and testing in order to establish a defense for violations. As a result, the carrier quality assurance defense element in the reformulated gasoline program is merely an extension of the carriers' current quality assurance responsibilities.

EPA intends to exercise its enforcement discretion to provide carriers with flexibility to satisfy the quality assurance sampling and testing defense element if another party, most likely the product owner, carries out an adequate sampling and testing program over the gasoline stored or transported by the carrier. The product owner is required to conduct a quality assurance program in order to establish a defense against its own liability, so that an arrangement between the carrier and the product owner in this regard would be little additional burden for the product owner.

Carriers also may seek contractual indemnification from the product owner against liability for violations detected at the carrier's facility. EPA believes that the traditional allocation of risk through contract is an appropriate method for carriers to safeguard their interests within the fuel distribution system. Contractual indemnification combined with a contractual commitment by the product owner to carry out an effective quality assurance sampling and testing program would provide a carrier with reasonable protection against financial exposure for liability for violations for which the carrier is not responsible.

EPA has analyzed the costs associated with voluntary carrier sampling and testing. First year per-party costs[65] are calculated to be approximately $2,672 for pipelines, $1,042 for truckers acting as oxygenate blenders, and $517 for other truckers. Costs during 1996 and 1997 are estimated at $2,437, $673 and $480, respectively. Moreover, EPA assumes that many of these costs will be shared among carriers and the owners of the product. EPA has concluded that these costs are reasonable given the importance of the quality assurance program to the success of the reformulated gasoline program.

4. Alternative Enforcement Options

Several commenters offered alternatives to EPA's proposed enforcement scheme. The alternatives proposed include: EPA should rely on cease and desist orders; EPA should only presume liability where a violation is found and allow private contract law to insure the violator against upstream causation; EPA should require willful and knowing negligence for vicarious refiner liability; and EPA should impose sampling and testing requirements on all tank truck carriers, even if sampling and testing is already performed by an upstream party for the carrier, to avoid economic advantage over for-hire carriers.

EPA has considered these alternative enforcement schemes and has determined to implement the scheme as proposed or modified and discussed above. This enforcement scheme is unified, consistent with EPA's enforcement in the gasoline volatility, diesel sulfur and lead phasedown programs, and focusses enforcement attention at the points in the distribution system where the pollution forming potential of gasolines may be affected by parties in the manufacturing and/or distribution process. A stringent compliance oversight and enforcement program, as described in detail in the final rule and this preamble, is necessitated by the significant financial incentives that exist for parties to not comply. EPA's experience in the lead phasedown and gasoline volatility programs has been that financial incentives will result in cheating and that a vigorous enforcement presence will result in diminished incidence of non-compliance. Accordingly, EPA believes that an enforcement program relying on cease and desist orders alone for encouraging compliance by parties would not be effective in deterring violations and would fail to remove economic incentives for non-compliance. Further, EPA believes that reliance on private contract law to insure the violator against upstream causation would be ineffective in providing for maximum compliance due to the uncertainty of the resolution of contract disputes and the amenability of such disputes to resolution for reasons other than the interests of compliance with the Clean Air Act. Also, EPA has determined not to require willful and knowing negligence for vicarious refiner liability due to the difficulty of establishing knowledge and due to EPA's belief that such a requirement would ease the obligation of refiners to strictly monitor the quality of their product as it is distributed. Finally, EPA has created a system of sampling and testing that creates the most thorough oversight scheme necessary while avoiding unnecessary redundancies. The regulations require each party to conduct sampling and testing at appropriate points in the distribution system. However, as discussed above, EPA will exercise its enforcement discretion so as to allow parties the flexibility to jointly assume responsibility for the accomplishment of required testing. This exercise of enforcement discretion is intended to avoid redundancies. EPA cannot justify the imposition of unnecessary sampling and testing on the regulated community

[64] Carriers are liable under two circumstances: when a violation is found at the carrier's facility, and where EPA shows the carrier caused a violation found elsewhere. The quality assurance defense element would have application only in the first circumstance, however, because in a case where EPA establishes the carrier caused a violation the carrier would not be able to establish a defense even if the carrier conduced a quality assurance program.

[65] First year costs include: analyzing RFG regulatory provisions; planning activities; training; field testing for conventional gasoline marker; sampling and testing for reform properties (though this is partially a customary and usual business practice by virtue of required testing for RVP and oxygenates for federal and state programs). Pipelines already routinely test for other properties as well.

to alter economic advantages associated with this program.

J. Baselines for Imported Gasoline

EPA received comments on the appropriate baseline to apply for gasolines produced at foreign refineries and imported into the United States.

1. Introduction

EPA's regulations prescribe the procedures for establishing 1990 baselines for refiners and importers. Compliance with the anti-dumping standards is measured by comparison to these baselines. In addition, during the period 1995 through 1997, the reformulated gasoline emissions standards are based in part on maximum parameter levels measured against these baselines. Section 211(k)(8) provides for refiners, blenders or importers to determine individual 1990 baselines predicated on adequate and reliable data. In the absence of such adequate and reliable data, Congress prescribed a summertime baseline and mandated that the Administrator would establish a wintertime baseline."[66]

The final rule provides mechanisms for establishing accurate and verifiable refinery baselines, while avoiding options that might provide incentives for the regulated community to "game" the baseline-setting process. These two principles that underlie the baseline-setting mechanisms (accurate, verifiable, and no opportunity for "gaming") serve the environmental purpose of ensuring that the quality of gasoline used in the United States beginning in 1995 is properly compared with the quality of the gasoline used in the United States in 1990.

Subsequent to January 1, 1995, all conventional gasoline marketed in the U.S. will be subject to emission standards established with reference to an individual baseline. Between January 1, 1995 and January 1, 1998, all reformulated gasoline marketed in the U.S. also will be subject to standards established with reference to an individual baseline. The consequence of a baseline-setting mechanism that would result in baselines that, overall, are less stringent than 1990 average gasoline quality, would be that the environmental benefits intended for reformulated and conventional gasoline beginning in 1995 would not be achieved.

If refiners had the option of presenting the data necessary to establish an individual refinery baseline, or being assigned the anti-dumping statutory baseline, each refiner's choice would be clear. Each refiner would calculate whether the individual baseline or the statutory baseline is more stringent for that refiner, and would simply select the least stringent option. In consequence, if parties were given more than one regulatory option to establish a baseline, the cumulative effect of each individual refiner's exercise of the baseline-setting option would be that the environmental benefits intended for reformulated and conventional gasoline would not be achieved. Accordingly, EPA has avoided providing options within the baseline-setting scheme.

2. Required Individual Baselines—Domestic Refiners

EPA's final rule provides for a scheme to establish refinery baselines for domestic refiners that avoids giving parties options, and within this no-option constraint, that uses the best available data in setting baselines. As a general approach, parties are required to establish individual baselines using actual 1990 data (Method 1). However, EPA does not anticipate that many domestic refiners will have all the data necessary to establish an individual baseline based entirely on actual 1990 data. Therefore, where the actual 1990 data is not available, the baseline provisions provide for the modelling of 1990 parameters (Methods 2 and 3). These models are based on the absence of "first choice" 1990 data, and require that the affected party provide the "next best" data available from production subsequent to 1990 to establish a modelled accurate baseline.

Domestic refiners are not permitted an option to revert to the use of Methods 2 and 3. Rather, refiners are required to use Method 1 if actual 1990 data is available. If the Method 1 data are not available, refiners are required to use Method 2, and if Method 2 data are not available, refiners are required to use Method 3. Domestic refiners are not permitted an option to use the statutory baseline. Domestic refiners are required to use independent commercial auditors to certify the accuracy and the availability (or non-availability) of data for any of the baseline setting methods, and to assure the proper application of those methods. This scheme does not give domestic refiners any choice in the manner in which baselines are set, thus avoiding the potential for "gaming" by individual refiners. Moreover, EPA is easily able to conduct enforcement audits of the baseline submissions of domestic refiners. In consequence, EPA believes that this scheme will result in the establishment of an accurate representation of the actual U.S. 1990 baseline gasoline fuel properties from domestic refiners. This baseline setting scheme is discussed in detail in Section VIII of this preamble.

3. Baselines—Importers of Foreign Gasoline

The final rule provides that importers of gasoline must establish an individual baseline using actual 1990 gasoline characteristics (Method 1). Where actual 1990 data are not available, however, an approach that is different than the approach used for domestic refiners is necessary. In the absence of actual 1990 data, an importer is required to use the anti-dumping statutory baseline.

Importers are not permitted to use Methods 2 or 3 because often it is simply not technically feasible to model an importer's 1990 baseline from gasoline imported during the years subsequent to 1990, for the following reasons. The foreign sources and production processes underlying an importer's post-1990 gasoline will have changed for most importers from those sources and processes underlying the importer's 1990 product. The model Methods are not designed to factor in such changes. In addition, it is exceedingly difficult to establish the refinery-of-origin of discrete products, due in part to the fact that foreign gasoline from different foreign refineries often is subject to fungible mixing prior to arrival at the U.S.[67] Accordingly, both the importers and EPA would be unable to verify the accuracy or reliability of an importer's modelled baseline.

As a result of the technical infeasibility of the application of Methods 2 and 3 to importers (change of gasoline source-refiners between 1990 and later years, and inability to track refinery-of-origin generally), and lack of adequate enforcement, all importers that are unable to produce actual 1990 production values are required to revert to the anti-dumping statutory baseline. In addition, EPA anticipates that most importers lack the actual 1990 testing data necessary for establishing a baseline using Method 1. As a result, EPA expects most importers will be

[66] The statutory baseline is intended to approximate the national average gasoline parameter values for gasoline used in the United States in 1990.

[67] In discussions with representatives of the U.S. Customs Service, EPA has been informed that the Customs Service has found it is virtually impossible to trace a batch of gasoline from point of entry in the U.S. back to the country of origin. Country of origin for gasoline is relevant for Customs purposes because import tariffs on gasoline differ depending on whether the country of origin has most-favored-nation trade status. To the extent the Customs Service is unable to verify even the country of origin of gasoline, the refinery of origin would be even more difficult to verify.

assigned the anti-dumping statutory baseline.

EPA considered giving foreign refiners, as opposed to importers, the option of either setting individual baselines using Methods 1, 2, and 3, or of being assigned the anti-dumping statutory baseline. This approach is flawed, however, because of the gaming opportunity it would give foreign refiners. As discussed above, such a gaming opportunity would result in an overall quality of gasoline in 1995 and thereafter that would fail to achieve the environmental goals intended for reformulated and conventional gasoline.

A foreign refiner with an actual baseline dirtier than the statutory baseline would prefer to continue to produce to that baseline. However, a foreign refiner with an actual baseline cleaner than the statutory baseline would prefer to produce to the less stringent statutory baseline. Accordingly, the incentives to game the program would result in the average quality of gasoline imported to the U.S. being skewed to produce dirtier gasoline than the statutory baseline. Foreign refiners would collectively exceed the U.S. average gasoline parameters, resulting in dirtier U.S. air.

EPA also considered whether it would be feasible to apply the same baseline-setting approach used for domestic refiners to foreign refiners directly, i.e., that any foreign refiner would be required to establish an individual baseline using Methods 1, 2, or 3. Under this approach, any foreign refiner, like any domestic refiner, who is unable to establish the quality of its 1990 US-market gasoline would be barred from supplying gasoline for use within the United States beginning in 1995. This approach would be consistent with the guiding themes for baseline-setting: That parties not have options in setting baseline levels, and that within this constraint that the baselines are set using the best available data. Application of this baseline-setting approach to foreign refiners is problematic, however.

Foreign refiner use of the general scheme using Methods 1, 2 and 3 would require that the foreign refiner must have actual test data for the portion of its production destined for U.S. markets, or in the alternative, foreign refiners would have to model the 1990 quality of their U.S. product based on post-1990 gasoline quality data and refinery configuration information. EPA believes that most foreign refiners lack the information necessary to establish their 1990 U.S. market gasoline under either Method 1, 2 or 3. Most (if not all) foreign refiners, like domestic refiners, did not collect adequate data in 1990 to use Method 1. In addition, Methods 2 and 3 generally are inappropriate for use by foreign refiners for technical reasons, in that Methods 2 and 3 model the quality of overall refinery gasoline production, not the quality of a portion of refinery production. The overall quality of gasoline from a refinery may bear scant resemblance to the quality of the portion going to the U.S. market. Accordingly, Methods 2 and 3 normally will not work for refineries that ship only a portion of their production to the U.S. market.

EPA believes that it is inappropriate to require the use of Methods 2 and 3 baselines when these Methods will not work properly for some or most foreign refiners, and when the consequence of such a failure would be to bar the foreign refiner from importing gasoline into the U.S. Therefore, in order to create a non-optional baseline setting approach for foreign refiners, EPA determined to regulate their gasolines through domestic importers as described above.

In addition to the technical difficulties inherent in applying baseline-setting Methods 2 and 3 to importers and foreign refiners, and the potential for gaming that would result from optional use of these Methods, EPA is concerned that it would be unable to carry out a consistently effective compliance monitoring and enforcement program of foreign refinery baselines set using these Methods, with the result that the accuracy of foreign refinery baselines would not be ensured.

There is a fundamental distinction between EPA's ability to monitor and enforce regulatory requirements that would apply against domestic as opposed to foreign refiners. Simply put, domestic refiners are subject to the full panoply of EPA's regulatory jurisdiction and compliance monitoring, while not all foreign refiners desiring to produce reformulated and/or conventional gasoline may be subject to EPA's regulatory jurisdiction with equivalent certainty. Compliance monitoring and enforcement are integral to the establishment of accurate and verifiable baselines, as well as subsequent compliance with standards based on these baselines.

The reformulated gasoline program compliance monitoring and enforcement scheme consists of several elements designed in the aggregate to ensure that the environmental goals of the Clean Air Act are met, including, *inter alia:* baseline-setting audits; mandatory reporting and record keeping; independent laboratory sampling and testing; tracking of product from point of production to point of distribution; unannounced EPA compliance inspections; annual attest engagements by certified professionals; and an enforcement scheme comprised of civil penalties, injunctive relief, and criminal sanctions. Domestic refiners and importers are subject to EPA jurisdiction in each of these activities; all foreign refiners may not be equally amenable to EPA jurisdiction.

Domestic refiners, required to establish individual baselines using actual or inferred 1990 production values (Methods 1, 2 and/or 3), are required to have baseline parameter determination methodology and resulting values verified by an EPA-certified auditor. However, foreign refiners, like all foreign corporations and citizens, enjoy protected status under the laws of their national jurisdiction and are not equally amenable to EPA audits of refiner baselines.[68] EPA has experienced difficulty in other mobile source regulatory programs, including the foreign automotive certificate of conformity program, in gaining entry to foreign countries to conduct compliance inspections and therefore believes similar problems could arise under the reformulated gasoline program.

EPA has considered whether one or more foreign refiners may be able to devise a diplomatic instrument sufficient to guarantee EPA's certified auditors and inspectors access to conduct baseline verification audits and compliance oversight and enforcement inspections. However, the foreign supply of gasoline (conventional and ultimately reformulated gasolines) to the U.S. currently depends on imports from numerous foreign sources. EPA believes it unlikely that all current (or foreseeable future) foreign suppliers of gasoline will be able to provide adequate diplomatic guarantees for EPA access.

The environmental benefits of the reformulated gasoline program depend on EPA's receipt of accurate and verifiable reports from regulated parties, and EPA's ability to review the data possessed by the regulated community

[68] A commenter suggested that diplomatic instruments may be available to mitigate EPA's concerns with access to foreign refineries for baseline certification and compliance monitoring and oversight. However, EPA has not been presented with a model instrument that guarantees such access over time. In contrast, EPA does have guaranteed access to domestic refineries and importers through authority provided in the Act and its implementing regulations.

Further, EPA is unaware of any current diplomatic instruments which would provide EPA with assurances of oversight of the integrity of compliance audits conducted by non-U.S. auditors.

that underlies the reports, or in the alternative, EPA's ability to seek civil, criminal and professional sanctions against domestic corporate officers and professionals engaged in maintaining records or submitting reports and audits to the U.S. government. However, in the case of foreign refineries, EPA does not have the authority for oversight of the record keeping and reporting process that is equivalent to EPA's authority over domestic refiners and possible sanctions are not equally available to ensure accurate reports by foreign parties. Again, EPA believes it unlikely that all foreign governments desiring to import reformulated or conventional gasoline to the U.S. would either consent or be able to provide adequate assurance of foreign reporters' amenability to EPA legal process.

The integrity of the reformulated gasoline program is also affected by EPA's ability to verify the baseline that applies to each batch of gasoline produced domestically or imported. The baseline of a gasoline batch establishes the standard against which compliance for that batch will be measured.

In the case of gasoline produced domestically, baselines are set at the refinery; any gasoline produced at a refinery and intended for the domestic market is subject to that refinery's baseline. As a result, tracking of gasoline to its refinery-of-origin is not necessary in the case of domestically-produced gasoline.

If foreign refinery-specific baselines were applied to imported gasolines, however, it would be necessary to identify the refinery-of-origin for all imported gasoline. This type of identification often would be very difficult or impossible. At the time gasoline arrives by ship at a U.S. port of entry, the gasoline has no inherent quality that would identify either the refinery at which the gasoline was produced or the baseline that properly applies to the gasoline. The only mechanism available for correlating any imported gasoline with the refinery-of-origin is the paperwork that accompanies the gasoline. EPA's ability to verify the accuracy of such paperwork is extremely limited. Gasoline produced by a foreign refinery may trade hands or be intermixed with other product several times before entering the United States. EPA lacks the ability to accurately and readily determine the refinery-of-origin based solely on the documentation of fuel transactions and shipments through myriad distribution parties and routes outside the United States.

If foreign refinery baselines were allowed, EPA would have no recourse other than to rely on the import paperwork that is supplied by the importer for purposes of identifying the baseline applicable for imported gasoline. EPA would have little or no means of detecting, documenting, or proving any cheating in the form of misstating the refinery-of-origin and thereby the applicable baseline for imported gasoline. EPA would therefore lack the ability to monitor the compliance of foreign refineries with individual baselines. Accordingly, EPA has determined to abide by its proposal to focus regulation of foreign gasoline on domestic importers of product over which EPA does enjoy enforcement jurisdiction.

Domestic refiners and importers are subject to unannounced compliance inspections by EPA. Foreign refiners, by virtue of their sovereign protected status, are not equally subject to unannounced inspections. Again, the environmental and public health benefits arising from an austere compliance monitoring program are not as readily available with respect to foreign refiners.

Domestic refiners and importers are subject to a panoply of enforcement mechanisms to ensure compliance with the Clean Air Act. EPA may seek civil or criminal penalties or injunctive relief within the U.S. judicial system and be assured that judgments will be enforced. Judicial remedies are essential to EPA's enforcement of a regulatory program in which significant economic incentives exist to produce non-complying product.

However, U.S. judicial jurisdiction may not fully and easily extend to foreign refiners. EPA's ability to exercise enforcement measures against foreign refiners is uncertain, at best. For example, in an EPA motor vehicle recall administrative action against a foreign automobile manufacturer, the manufacturer argued EPA lacked jurisdiction and refused to accept service or comply with administrative discovery requirements in a manner that would not be possible by a domestic automobile manufacturer. Accordingly, EPA has determined to focus its regulatory authority on domestic importers of foreign gasoline which are amenable to U.S. legal process.

In summary, EPA has considered all proposed baseline-setting alternatives for foreign gasolines to the final rule and has determined that the rule issued today is necessary to protect the quality of U.S. air and public health. Further, the baseline setting scheme promulgated today is the least restrictive scheme available to ensure that the goals of the Clean Air Act are achieved.

EPA is aware that the baseline approach adopted today for foreign refiners is the result of EPA's concerns over a variety of technical and enforcement issues related to the importation of gasoline.

4. Comments

One foreign refiner commenter to the 1992 SNPRM objected to this baseline-setting scheme on the grounds that some domestic refiners may receive baselines dirtier than the statutory baseline due to their ability to use actual or inferred 1990 production values, while most importers, and therefore foreign refiners, would be subject to the statutory baseline and would not enjoy an opportunity to use an individual baseline dirtier than the statutory baseline.[69] This would occur because it is unlikely that domestic importers that do not own foreign refineries maintained records of 1990 imported gasoline characteristics adequate to establish an individual baseline. The commenter recommended that foreign refiners be permitted to establish individual baselines using Methods 1, 2 and/or 3 to establish their baselines.

EPA gave serious consideration to this comment, and in the 1993 SNPRM described the concerns raised by the comment and the alternatives suggested by the commenter, and invited comment on the issue.

In response to the 1993 SNPRM several commenters objected to providing foreign refineries with individual baselines on the grounds that such baselines would promote gaming of the system, thereby reducing the air quality benefits sought under the Act, and would provide foreign refiners with a competitive advantage. Because foreign refiners do not have to comply with the reformulated gasoline program's anti-dumping provisions for conventional gasoline sold outside of the U.S., the commenters alleged that foreign refiners can produce reformulated gasoline at lower overall cost.

Other comments were received that supported the granting of foreign refinery baselines, on the grounds that such baselines would enhance competition among gasoline suppliers within domestic US markets, to the advantage of the public generally.

EPA believes the comments related to any competitive consequences of baselines are irrelevant. As a result, EPA has rejected all comments relating to competitive concerns, and EPA's

[69] This issue is primarily of concern to foreign refiners whose actual 1990 production characteristics exceed the statutory baseline.

decisions regarding the manner in which baselines are set are not influenced by such considerations.

After consideration of all relevant comments on this issue, EPA has determined to implement the baseline provisions described above. The detriment to the U.S. environment associated with the potential establishment of inaccurate refinery baselines by current and possibly future foreign sources of imported gasoline, along with the difficulties associated with monitoring compliance with the anti-dumping and reformulated gasoline programs, compel the Agency to require that domestic importers establish individual baselines using Method 1 or that they comply with the anti-dumping statutory baseline, and to not establish individual baselines for foreign refiners. This scheme is consistent with the scheme of requiring refiners, domestic or foreign, to measure compliance against an accurate and verifiable baseline that is based on adequate and reliable data. The approach is also consistent with EPA's intent to avoid the creation of options within the baseline setting scheme that would allow gaming by the regulated community. Further, the scheme is consistent with EPA's compliance monitoring and enforcement capacity.

5. U.S. Energy Security

One commenter suggested that requiring foreign refiners to produce to the statutory baseline would result in a shortfall of imported gasolines to the U.S. EPA's analysis indicates that gasoline supplies will be unaffected by implementation of the proposed baseline requirements. This conclusion is based on the likelihood that the baseline proposal would at most result in a small change in gasoline imports in limited markets, combined with the excess domestic refining capacity, and the expansion of gasoline volume that will result from the oxygenate use mandated for domestic gasoline.

EPA concludes that the baseline provisions adopted today pose no significant problem for U.S. energy security.

6. Date the Complex Model Becomes Mandatory

One commenter notes that the individual baseline issue is only pertinent to the years during which gasoline may be produced under the simple model for determining gasoline characteristics. Beginning in 1998, when the complex model becomes mandatory, the commenter correctly points out, all reformulated gasoline will be required to achieve specified reductions from the statutory baseline. Accordingly, the commenter observes, individual baselines for foreign refineries are only critical during the years the simple model is relevant.

However, the refinery/importer individual baseline will continue to be relevant beyond application of the simple model due to its application to conventional gasoline through the anti-dumping requirements. As a result, if individual foreign refinery baselines were allowed, the difficulties described above would persist in perpetuity. Accordingly, the feasibility of the baseline setting scheme established today will have longstanding effect on the viability of the reformulated gasoline and anti-dumping program.

K. Date Reformulated Gasoline Requirements Begin

Section 211(k)(5) prohibits the sale or dispensing of conventional gasoline in any covered area beginning on January 1, 1995. In order to implement this timing mandate, EPA proposed that the reformulated gasoline requirements would apply at all locations beginning on January 1, 1995. EPA now believes that it is necessary for the reformulated gasoline requirements to apply at facilities upstream of the retail outlet level beginning on December 1, 1994, in order for facilities at the retail level to have reformulated gasoline beginning on January 1, 1995.

Under the gasoline volatility program (40 CFR 80.27–80.28), the volatility standards apply at facilities upstream of the retail outlet level beginning on May 1 of each year, and at all facilities including retail outlets and wholesale purchaser-consumers beginning on June 1 of each year.[70] This regulatory approach provides a one month lead-time during which the gasoline being dispensed at terminals meets the summertime volatility standard, in order to "turn over" the gasoline in retail level storage tanks to meet the summertime volatility standard before June 1. As a result of this timing requirement for gasoline volatility, almost all retail outlets achieve the summertime volatility standard by June 1 through the normal cycle of gasoline deliveries.

In contrast to this favorable experience under the gasoline volatility program, during implementation of the diesel sulfur program (40 CFR 80.29–80.30) retailers and wholesale purchaser-consumers had significant difficulties complying with the new requirements at the beginning of that program on October 1, 1993. The diesel sulfur regulations did not require facilities upstream of the retail level to have low sulfur diesel fuel in place well before October 1, 1993, and many terminals did not meet the low sulfur standard until very shortly before October 1. As a result, a large number of retail outlets and wholesale purchaser-consumers were not able to obtain low sulfur diesel fuel in advance of the October 1, 1993 date when all facilities were required to meet the low sulfur diesel standard. In consequence of this situation in some areas of the country prices of low sulfur diesel fuel rose 30¢ to 40¢ over the cost of high sulfur diesel fuel. As a result, EPA was compelled to grant retailers and wholesale purchaser consumers additional time after October 1 to come into compliance with the diesel sulfur standard.

EPA believes that unless a lead-time is mandated under the reformulated gasoline program, the January 1, 1995 commencement will result in the same supply difficulties that occurred under diesel sulfur, and retailers and wholesale purchaser consumers will be unable to meet the reformulated gasoline standards on January 1, 1995. EPA further believes that a one month lead-time is appropriate for the reformulated gasoline program, because a lead-time of this length has been successful under the gasoline volatility program. As a result, the final regulations include the requirement that certain reformulated gasoline requirements must be met by facilities upstream of the retail level beginning on December 1, 1994.

This regulatory provision constitutes a clarification of the proposal that would require all parties, including retailers and wholesale purchaser-consumers, to meet the reformulated gasoline standards beginning on January 1, 1995. The proposed regulatory timing could only be achieved if upstream facilities began dispensing reformulated gasoline before January 1, 1995, and that in consequence a lead-time of approximately one month was implicit in the proposal.

All regulatory requirements for reformulated gasoline apply to gasoline that is produced or imported after December 31, 1994, or any time during 1994 if it is intended for use after January 1, 1995. It is presumed that all gasoline produced or imported after December 1, 1994 is intended for use after January 1, 1995. These requirements include, *inter alia*, independent sampling and testing, provisions dealing with downstream oxygenate blending, record keeping,

[70] The end of the volatility control season each year is September 15 at all facilities.

reporting, and attest engagements. This reach of the reformulated gasoline requirements is consistent with the regulatory provision contained in the proposal (also included in the final rule at § 80.65(a)), that reformulated gasoline requirements would apply to all gasoline sold, dispensed, stored, transported, produced, or imported on or after January 1, 1995. EPA thus proposed that gasoline sold or dispensed on January 1, 1995, and that necessarily will have been produced or imported during 1994, would be subject to all reformulated gasoline requirements.

Thus, for example, all gasoline produced or imported on or after December 1, 1994 will have to be designated as reformulated or conventional. If it is designated as reformulated it will have to comply with reformulated gasoline standards. If it does not comply with reformulated gasoline standards, it will have to be designated as conventional, segregated from reformulated gasoline, and clearly labeled as conventional gasoline and not intended for use in any covered area.

In the case of reporting requirements, EPA intends that no quarterly or averaging reports will be submitted in 1994, and that the first quarterly report in 1995, that must be submitted by May 31, 1995, will be the first reformulated gasoline report. As a result, all batch-specific information for gasoline produced during 1994 should be included in the first quarter 1995 report. A provision is included in the final rule to this effect, at § 80.75(a)(3). Similarly, EPA does not intend that a separate attest engagement must be performed at the conclusion of 1994, but that the 1995 attest engagement must include all gasoline produced or imported in 1994.

EPA also has included a provision in the final rule, at § 80.67(i), to specify the manner in which standards are met for reformulated gasoline produced to average (as opposed to per-gallon) standards during 1994. Proposed provisions dealing with averaging did not address this category of reformulated gasoline, because the averaging proposals only addressed gasoline produced beginning in January 1995.

The provision in the final rule specifies that reformulated gasoline that is produced or imported during 1994 but that is intended to be used in 1995 may meet the reformulated gasoline standards on average, provided that the refiner or importer satisfies the gasoline quality survey prerequisite during 1995. The provision further specifies that any such average compliance reformulated gasoline must be grouped with gasoline produced or imported during 1995 for purposes of compliance calculations, as well as reporting. As a result of the requirement that for each parameter only the per-gallon or only the average standard may be used during each averaging period, the compliance approach used for each parameter in 1994 (per-gallon vs. average) must also be used for all of 1995.

EPA believes this approach for average compliance gasoline produced in 1994 is appropriate, because it represents the alternative that preserves the opportunity for refiners and importers to meet standards on average for this category of gasoline, with the smallest regulatory burden for regulated parties and for EPA. EPA considered, and rejected, the alternative of allowing parties to use only the per-gallon standards during 1994, because of the adverse impact on flexibility of such a restriction.

EPA also rejected the option of requiring that average standards must be met separately for gasoline produced or imported during 1994.[71] EPA believes there would be no significant environmental consequence of combining 1994-gasoline with 1995-gasoline for averaging purposes, but that the regulatory burden of separate accounting for 1994-gasoline would be significant. The simple model standards that will apply for gasoline produced or imported during 1994 are limited to oxygen, benzene, and toxics emissions performance, because this gasoline will not be VOC-controlled. These parameters are regulated because of toxic pollution concerns, and have the relatively long averaging period of twelve months because the threat of toxic pollution is long-term, cumulative in nature. EPA believes that combining the limited volume of 1994-gasoline with 1995-gasoline is consistent with the long-term averaging approach to toxics generally.

VIII. Anti-Dumping Requirements for Conventional Gasoline

A. Introduction

Section 211(k)(8) of the Act requires that average per gallon emissions of specified pollutants from non-reformulated (i.e., conventional) gasoline use must not deteriorate relative to emissions from 1990 gasoline, on a refiner[72] basis. Compliance is measured by comparing emissions of a refiner's conventional gasoline against those of a baseline gasoline. An individual baseline, consisting of fuel parameters and emissions, is developed for each refiner based on the quality of its 1990 gasoline, although under certain circumstances the individual baseline is the statutory baseline fuel parameters and emissions. To implement this requirement, EPA is promulgating requirements known as the anti-dumping provisions for conventional gasoline producers and importers. These requirements apply to all conventional gasoline producers and importers whether or not they also produce or import reformulated gasoline.

This section describes the key features of the anti-dumping provisions (excluding the compliance and enforcement provisions applicable to conventional gasoline which are discussed in Section IX). The requirements discussed in this section are detailed primarily in § 80.90 to § 80.93 in the accompanying regulations. This section also highlights major comments received on EPA's proposals in this area and how this final rule differs from those proposals. Additional supporting information can be found in Section VII of the associated Regulatory Impact Analysis (RIA).

B. Emission Requirements

1. Introduction

Section 211(k)(8) of the Act requires that EPA promulgate regulations ensuring that, for each refiner, average per gallon emissions of VOC, CO, NO_X and toxic air pollutants from its conventional gasoline do not increase over emissions from the gasoline introduced into commerce by that refiner in calendar year 1990. Emissions are to be measured on a mass basis, and each of the four pollutants is to be considered separately. Increases in NO_X emissions due to oxygenate use may be offset by equivalent or greater mass reductions in the other pollutants.

The regulations promulgated today address exhaust benzene, total exhaust toxics and NO_X emissions from conventional gasoline use. In addition, under the simple model, refiner specific caps are set for sulfur, olefins and T90. EPA is not promulgating specific requirements for emissions of VOCs or CO, as EPA believes that the regulations promulgated herein, in conjunction with various other agency regulations and Clean Air Act requirements, will

[71] A refiner or importer who produces or imports reformulated gasoline using the average standards, but who uses only the per-gallon standards during 1995, would be required to meet the average standards using the 1994-gasoline only.

[72] For ease in discussion, the term "refiner", as used in this discussion of the anti-dumping program, will hereafter include refiners, blenders and importers. Where appropriate, blenders and importers will be mentioned specifically.

adequately meet the emissions limits for all four pollutants specified in section 211(k)(8). A detailed discussion of EPA's reasons for adopting this approach may be found in the Agency's July 9, 1991 proposal and, in summary, in the RIA.

Section 211(k)(8) authorizes this approach as that provision requires that EPA promulgate regulations "ensuring" that conventional gasoline meet certain requirements on a refiner specific basis, but does not mandate that EPA promulgate regulations for each of the four pollutant categories. This provision therefore provides EPA with the discretion to fashion a regulatory program that "ensures" these results. While a relatively straightforward approach to this would involve emissions requirements for each of the four pollutant categories, it need not if the regulatory program otherwise achieves the required result.

While the language used by Congress in section 211(k)(8)(A) supports this interpretation, there are several other provisions in section 211(k) where Congress clearly specified that EPA promulgate various requirements, and such language is conspicuously missing from section 211(k)(8)(A). See, for example, section 211(k)(8)(D) ("The Administrator shall promulgate an appropriate compliance period * * *"), section 211(k)(1) ("regulations shall require the greatest reduction in emissions * * * taking into consideration * * *"), section 211(k)(2) ("regulations * * * shall require that reformulated gasoline comply with paragraph (3) and * * * each of the following requirements * * *"), section 211(k)(4)(A) ("The regulations * * * shall include [certification procedures] * * *"), section 211(k)(7) ("The regulations * * * shall provide for the granting of an appropriate amount of credits * * *"). While EPA received several comments on the proposed conventional gasoline requirements, no one disagreed with the above interpretation of EPA's authority under section 211(k)(8)(A).

2. Emission Requirements Prior to January 1, 1998

Prior to mandatory use of the complex model on January 1, 1998, the requirements of section 211(k)(8) of the Act will be met by requiring that the annual average exhaust benzene emissions of a refiner's conventional gasoline not exceed its baseline exhaust benzene emissions. The exhaust benzene emissions due to conventional gasoline can be determined using the simple model discussed in Section III. Only the effects of fuel benzene and fuel aromatic content on exhaust benzene are included in this model.

When the simple model is used for compliance, the annual average sulfur, olefin and T90 values of a party's conventional gasoline cannot exceed its baseline values of those parameters by more than 25 percent. These limits will provide some additional assurance that conventional gasoline emissions of toxics and NO_X will not rise prior to use of the complex model. EPA does not expect the levels of these parameters in conventional gasoline to naturally increase due to the reformulated gasoline program, since the simple model for reformulated gasoline simply caps these three fuel parameters at their baseline levels and does not require their reduction.

A refiner may also use the complex model for determining compliance prior to its mandatory use. Because all of the fuel parameters affecting exhaust benzene emissions are part of the model (benzene, aromatics, RVP, sulfur, olefins, E300, E200, and oxygen) there is no need for separate "caps" on fuel parameters as associated with the simple model.

A refiner's baseline exhaust benzene emissions are determined by evaluating the refiner's baseline fuel parameter values in the model chosen by the refiner for compliance. At the end of a compliance period, the average fuel parameter values of a refiner's conventional gasoline over that period are evaluated in the same compliance model used to determine the refiner's baseline emissions. The resulting emission values are then compared to the baseline emission values to determine if the party is in or out of compliance with the anti-dumping requirement. While there was general support for the regulatory approach taken by EPA, several commenters suggested specific revisions to the emissions requirements. EPA's responses are discussed in the RIA. However, none of the comments caused EPA to change its proposed requirements, and all of the above provisions are being promulgated essentially as proposed.

EPA had proposed that while a refiner may choose to use either the simple model or the complex model prior to January 1, 1998, it must use the same model for both the reformulated gasoline and the anti-dumping programs. Several commenters disagreed with this last restriction. EPA is, however, promulgating this requirement as proposed because the anti-dumping and reformulated gasoline provisions are inherently tied together. The specific model used to certify reformulated gasoline will affect which fuel components are likely to be dumped. To avoid incentives to dump, the effect of these components on conventional gasoline emissions should be evaluated on the same basis as the reformulated gasoline emissions. Otherwise, incentives will exist to shift dirty components to conventional fuel areas using whichever model predicts the lowest emissions increase due to those components.

3. Emission Requirements Beginning January 1, 1998

Beginning January 1, 1998, the requirements of section 211(k)(8) of the Act shall be met by requiring that the exhaust toxic emissions and the NO_X emissions of a party's conventional gasoline not exceed that party's baseline exhaust toxic and NO_X emissions. Compliance with this requirement shall be determined using the complex model described in Section IV.

The exhaust toxics emissions requirement under mandatory use of the complex model includes all five pollutants defined in section 211(k)(10)(C) as toxics. These are exhaust benzene, formaldehyde, acetaldehyde, 1,3-butadiene and POM. Benzene emissions occur in both exhaust and nonexhaust emissions, and accordingly, section 211(k)(10)(C) does not limit the toxic air pollutant benzene to exhaust benzene. However, as stated, EPA is only promulgating regulations applicable to exhaust benzene. Nonexhaust benzene emissions will be effectively controlled by the summertime volatility controls applicable to conventional gasoline.[73] The sum of the baseline exhaust emissions of each of the five toxics is the value that must not be exceeded by the sum of the exhaust emissions of these toxic pollutants due to a refiner's or importer's annual average conventional gasoline.

NO_X emissions from conventional gasoline use are also controlled beginning January 1, 1998. Although EPA is concerned that high oxygenate levels may contribute to increased NO_X emissions, the Act states that any NO_X emissions increase in conventional gasoline due to oxygenate use can be offset by VOC, CO and toxic emission reductions. EPA is addressing this provision of the Act by allowing compliance with the anti-dumping NO_X

[73] No credit can be taken nor penalties received under the anti-dumping program for nonexhaust benzene reductions, or increases. Nonexhaust benzene emissions decrease due to RVP reductions, which are a VOC reduction strategy already considered under the anti-dumping program as the reason for not explicitly controlling VOC emissions.

emission requirement to be determined on either a nonoxygenated basis or an oxygenated basis, as discussed further in paragraph C.5.e of this section.

C. Requirements for Individual Baseline Determination

1. Introduction

Compliance under section 211(k)(8) of the Act is measured against an individual baseline (comprised of individual baseline fuel parameter and emission values) which is determined for each refiner if sufficient data exist from which to determine a baseline representative of that refiner's 1990 gasoline. Additionally, the Act states that if no adequate or reliable data exist regarding the gasoline sold by a refiner in 1990, the refiner must use the statutory baseline gasoline fuel parameters[74] as its baseline fuel parameters.

2. Requirements for Refiners, Blenders and Importers

a. *Requirements for producers of gasoline and/or gasoline blendstocks.* No adverse comments were received on the proposal that a refinery which primarily produces gasoline blendstocks from crude oil (including crude oil derivatives) and mixes those blendstocks to form gasoline be subject to baseline determination using any, or a combination of, the three data types described below in paragraph 3. The requirements are being promulgated essentially as proposed.

Likewise, no adverse comments were received regarding the proposal to exempt (from the anti-dumping requirements) those entities which produce and/or supply gasoline blendstocks to refiners and blenders, but do not produce gasoline. Hence EPA is not promulgating anti-dumping requirements for such entities.

b. *Requirements for purchasers of gasoline and/or gasoline blendstocks.* As proposed in April 1992, refiners who exclusively purchase blendstocks and/or gasoline and mix these purchased components to form another gasoline (i.e., blenders) must use Method 1-type data (as described in paragraph 3 below). Lacking sufficient Method 1-type data, the blender shall have the anti-dumping statutory baseline as its individual baseline. Most who commented on this issue suggested that blenders should be allowed the same opportunities as refiners to use 1990 and post-1990 gasoline and blendstock data. Otherwise, a blender may have to "reformulate" its conventional gasoline. Commenters also stated that this provision penalized blenders for not sampling their 1990 fuel when there were no such requirements. As discussed in the proposal, EPA does not believe that use of blendstock data or post-1990 gasoline or blendstock data would allow an accurate portrayal of a blender's 1990 production. Additional comments are discussed in the RIA; however, none led to a change in the proposed requirements for blenders.

c. *Requirements for importers of gasoline.* On April 16, 1992, EPA proposed that those who imported gasoline into the U.S. in 1990 must use Method 1-type data (as described in paragraph 3). Lacking sufficient Method 1-type data, the importer would have the anti-dumping statutory baseline as its individual baseline. An importer who did not import gasoline into the U.S. in 1990, but who does so after 1994, would also have the anti-dumping statutory baseline as its individual baseline. EPA proposed that if a U.S. importer is also a refiner and imported 75 percent or more of the 1990 gasoline production of a refinery into the U.S. in 1990, it could determine a baseline for that refinery using the three data types described in paragraph 3 below.

Most commenters agreed with EPA's overall proposal concerning importers. Some felt, however, that the "75 percent" criteria was self-selecting—only those importer/refiners with higher baseline emissions relative to the statutory baseline would choose to develop an individual baseline. Those importer/refiners with relatively low baseline emissions would use the statutory baseline, and thus dumping could result, since they would be complying with a baseline which was less stringent than one based on their own 1990 gasoline quality. EPA agrees that "dumping" could occur, but expects it to be minimal since few importing refineries are likely to meet the "75 percent" criteria. Nonetheless, EPA is requiring that all importers which are also refiners utilize Method 1-, 2- and 3-type data to determine the individual baselines of their refineries which meet the 75 percent criteria.

One commenter claimed that location, not percent of production imported, dictates enforceability. However, EPA believes that enforcement of a non-domestic refinery is governed less by location and more by the willingness of the company and/or country to open its refinery for compliance visitations. Another commenter specifically stated that Canadian refineries should be treated the same as domestic refineries for the purpose of establishing baselines. As stated, EPA believes that it will be relatively easy to accurately determine the quality of the gasoline produced in 1990 at a refinery outside of the U.S., for sale to the U.S., if a significant amount (i.e., 75 percent) of the production of the refinery came to the U.S. Independent of where the refinery is located, if less than this amount was imported, it will be more difficult to combine information on refinery operations and blendstock and gasoline data (i.e., Methods 2 and 3-type data) and allocate such information so as to establish the quality of the refinery's 1990 gasoline which was sent to the U.S.

Some commenters felt that an importer should be allowed to use all available 1990 and later data to establish a baseline and have its baseline verified by an auditor. However, as stated in the proposals, EPA believes that significant dumping could occur if post-1990 data is allowed since that data may not represent the importer's 1990 gasoline. EPA is thus promulgating this essentially provision as proposed.

d. *Requirements for exporters of gasoline.* EPA's proposals did not explicitly discuss whether gasoline exported from the U.S. in 1990 would be included in individual baseline determinations. However, because exported gasoline did not contribute to pollution in the U.S. in 1990, a producer of gasoline exported from the U.S. in 1990 shall not include the exported gasoline properties or volumes in its baseline determination. A refiner which exports all of its future gasoline outside of the U.S. is not subject to the anti-dumping requirements.

3. Types of Data

a. *Introduction.* As discussed in the July 9, 1991 proposal, EPA is concerned that use of the statutory baseline parameters in lieu of determining an individual baseline could have severe competitive effects. At the same time, EPA realizes that there likely will be insufficient directly measured 1990 fuel parameter data available from which to determine representative individual baseline parameters. Thus, in order to make the best use of available data in developing representative individual baselines, EPA is specifying the types of data and calculations that may be used in the baseline determination.

In the proposals, three methods (Methods 1, 2 and 3) were described for refiners to use to determine their baseline parameter values. Method 1-type data consists of a refiner's measured fuel parameter value and volume records of its 1990 gasoline. As discussed in the RIA, Method 1-type

[74] The statutory baseline gasoline for anti-dumping purposes is discussed further in paragraph C.3.e of this section.

data can be from 1990 production or 1990 shipments as long as no data is double counted and all available production and shipment data are used in the baseline determination. Method 2-type data consists of a refiner's 1990 gasoline blendstock composition data and 1990 gasoline and blendstock production records. Method 3-type data consists of a refiner's post-1990 blendstock composition data and 1990 gasoline and blendstock production records. For both Methods 2 and 3, these provisions apply to those blendstocks used in the production of gasoline within the refinery. Under certain circumstances, Method 3-type data may consist of post-1990 gasoline composition data as well.

No major comments were received negating the appropriateness of utilizing these three methods or data types. A few minor comments were submitted which are addressed in the RIA. Several commenters did request that EPA allow combinations of Methods 1, 2 and 3-type data to be used in baseline determination, in order to improve the use of available data and thus develop more accurate and representative 1990 individual baselines. EPA agrees that a more representative baseline will result if a combination of higher and lower levels of data is used rather than excluding the better data (i.e., Method 1) due to it being inadequate by itself. EPA had proposed that the different types of data must be used in a hierarchical order, i.e., Method 1-type data has to be used first, and if insufficient Method 1-type data was available for a given fuel parameter, Method 2-type data would be used, etc. EPA is modifying the proposals to allow baseline parameter values to be determined using a combination of the methods, or data types, if necessary, although the same hierarchy must be maintained. Thus, insufficient Method 1-type data may be supplemented with Method 2-type data and, if data were still lacking, the available Method 1 and 2-type data would be supplemented with Method 3-type data.

b. *Inclusion of gasoline blendstock.* Although not specified in the proposals, EPA is requiring that gasoline blendstock which becomes gasoline (per 40 CFR 80.2(c)) solely upon the addition of a specific type and amount of oxygenate, be included in the baseline determination. Unless evidence is provided which indicates that such blendstock was blended with oxygenate other than ethanol or less than 10.0 volume percent ethanol, or was not further modified downstream, the refiner shall assume that said blendstocks were blended with ten (10.0) volume percent ethanol. This requirement provides some assurance that baseline emissions are not artificially low due to selective inclusion or exclusion of such blendstock. Requiring that the blendstock be assumed to have been blended with a specific amount of ethanol (unless otherwise shown) will result in a more stringent baseline than if the blendstock were assumed blended with a lower volume of ethanol, a different oxygenate or not further modified. Hence, the burden of proof of actual disposition of such product is on the refiner.

c. *Method 3 additional information.* In order that the fuel parameter values obtained with Method 3-type data adequately represent the 1990 values of those parameters, EPA proposed that the refiner must provide detailed documentation of its 1990 and post-1990 refinery operations, including comparing 1990 and post-1990 operations, intermediates and products, and other aspects of refinery operations which would cause its post-1990 gasoline to differ from its 1990 gasoline. For instance, if post-1991 data is used, appropriate adjustments must be made for the refinery operational changes that occurred due to the 1992 volatility rules and the oxygenated fuels program, two situations which could cause post-1990 operations to differ from 1990 operations. The required documentation will assist the baseline auditor in its verification and EPA in its review of the refiner's baseline submission. This provision is being promulgated as proposed.

EPA proposed to allow post-1990 gasoline data to be used to estimate 1990 baseline parameters under certain circumstances. In addition to requiring the same detailed documentation of 1990 and post-1990 operations as above, in the February 26, 1993 proposal, EPA specified that the volumetric fraction of each blendstock in post-1990 gasoline must be within ten (10.0) percent of the volumetric fraction of the same blendstock in 1990 gasoline. For example, if a refiner's 1990 gasoline contained 30 volume percent reformate, post-1990 gasoline data may be used in the baseline determination as long as it contained 27.0–33.0 volume percent reformate and provided all other blendstocks also conformed to these requirements.

EPA received many comments stating that the use of post-1990 gasoline data was more accurate, and less costly, than using post-1990 blendstock data. EPA agrees, and is allowing the use of gasoline data under certain circumstances, as discussed below. Commenters also suggested that verification of differences and similarities between 1990 and post-1990 operations and the resulting gasoline should be left to the baseline auditor rather than compared to specific criteria. While the auditor will verify the comparison of 1990 and post-1990 operations, etc., all issues verified by the auditor will also be reviewed by EPA. In addition to the technical reasons discussed below, specifying such criteria (i.e., the "10 percent" criterion) will ensure the uniformity of both auditor and EPA evaluations and verifications.

As discussed in the RIA, unless post-1990 blendstock fractions are sufficiently similar to 1990 blendstock fractions, adjustments for differences will have to be made at the blendstock level, making any gasoline data moot. Larger differences than 10 percent in large streams such as reformate could affect overall aromatic levels by up to 3 volume percent, which is clearly significant. For smaller streams, however, a 10 percent change could be insignificant. Therefore, EPA is expanding its criteria by allowing post-1990 gasoline blendstocks to meet the larger of (1) the 10 percent criterion, or (2) be within two absolute volume percent of the blendstock volumetric fraction in 1990 gasoline. As discussed in the RIA, this means of utilizing post-1990 gasoline should adequately cover typical fluctuations in both large and small volume blendstocks without unduly sacrificing accuracy.

Post-1990 gasoline data for which a single 1990 blendstock does not meet either of the blendstock fraction requirements cannot be used in the baseline determination. However, EPA also received comment that many refiners would not be able to use post-1990 gasoline data, even with the expanded criteria, simply due to butane utilization changes from 1990. Because butane, and thus RVP, were reduced after 1990 due to volatility controls, and because RVP reductions reduce emissions, EPA is exempting butane from the blendstock requirements for using post-1990 gasoline.

d. *E200 and E300.* Although not previously included among the fuel parameters for which baseline values are required to be determined, EPA is now requiring that baseline values be determined for the fuel parameters E200 and E300, the percent evaporated at 200 °F and 300 °F, respectively. Although these two fuel parameters replace T50 and T90, respectively, in the complex model, T90 baseline values are still required to be determined for use prior to mandatory complex model use.

EPA expects E200 and E300 values to be determined directly from gasoline or blendstock data, even if distillation information has to be regraphed. If such a determination is not possible, E200 and E300 values may be estimated from otherwise acceptable T50 and T90 data using the equations specified in the regulations. Thus, this addition will not void any data collected under the proposed criteria.

e. *Anti-dumping statutory baseline.* As mentioned earlier, in some cases a blender or importer may not be able, or be allowed, to develop an individual baseline from its own data. In that case, the refiner or importer would have the statutory baseline as its individual baseline. Although the compliance period for conventional gasoline is annual (as discussed in the proposals and as described in section IX), emissions determined using the complex models are determined on a summer and winter basis. Thus, there are separate anti-dumping summer and winter baseline fuel parameters, which are the statutory summer baseline specified in the Act, and the winter baseline determined by EPA as required by the Act. Few comments were received concerning the proposed annual average statutory baseline (which is a weighted average of the statutory summer and winter baselines, as discussed in the proposals). None of the comments led to a change in the annual average baseline fuel parameter values.

4. Data Collection and Testing Requirements

a. *Sampling requirements.* In the February 26, 1993 proposal, EPA proposed minimum sampling requirements in order to ensure that enough gasoline or blendstock samples were taken from which to develop a representative baseline. Namely, for Method 1-type data, at least half of the batches (by number of batches, not volume), or shipments if not batch blended, in a calendar month shall have been tested for a particular parameter. For Methods 2 and 3-type data, at least weekly sampling of continuous blendstock streams and, if blendstocks are produced on a batch basis, sampling of at least half of the batches of each blendstock produced in a month is required.

Many refining industry commenters protested this proposal claiming that they had sampled based on the April 16, 1992 proposal requiring "sufficient" sampling, and that EPA's more specific requirement could void data collected, and the time and money spent. EPA agrees that the sufficient frequency of sampling may vary according to circumstance (such as the degree of variation in operating conditions), and is modifying its latest proposal by accepting, under certain circumstances, data which does not meet the requirements specified above. However, if less than the minimum data is used, the refiner must document, and the auditor verify, why the data is less than the minimum requirements and why it is sufficient in quantity and quality to use in the baseline determination. EPA retains the right to reject use of less than the minimum data if the documentation is incomplete or the justification not technically sound. In all cases,[75] all available samples must be analyzed and the results used in baseline determination if more than the minimum number of samples are available.

Additionally, EPA is promulgating its proposal to require at least three months worth of both summer and winter data. As discussed in the RIA, this requirement ensures that the collected data covers the typical changes in gasoline composition which occurs across seasons. Although not explicitly stated in the proposal, to better distinguish between summer and winter, summer months shall consist of any month in which gasoline was produced to meet the federal summer volatility requirements. It is not necessary for such low volatility fuel to be produced for the entire month. Winter months are any months which could not be considered summer months.

b. *Post-final rule data collection.* Few comments were received on the February 26, 1993 proposal that if a refiner collects data after promulgation of these regulations, the data must be collected no later than the end of the third month of the first three full months during which summer gasoline is produced by the refiner following promulgation of the final rule. EPA is modifying this provision slightly, requiring only that proof must be given that additional data was needed and indeed was collected after today.

c. *Negligible parameter values.* On February 26, 1993, EPA proposed to exempt refinery streams from testing for one or more specific parameters if a stream contains negligible amounts of those parameters. The affected fuel parameters are benzene, aromatics, olefins and sulfur. EPA also proposed threshold criteria for each fuel parameter, i.e., the amount of the fuel parameter in a stream at or below which the parameter would be considered negligible. EPA has changed the values of some of the threshold criteria based on comment. Specifically, the benzene threshold value was reduced and the sulfur threshold value increased. A full discussion of these changes can be found in the RIA; the actual values are also listed in § 80.91. Oxygen was added to the list of parameters that may be considered negligible under certain circumstances. Other than those modifications, the requirements are being promulgated as proposed.

d. *Test methods.* Many commenters were concerned that the test methods they had used to analyze samples would be invalid because they were not the same as the required test methods being promulgated today for reformulated gasoline. EPA had proposed, on April 16, 1992, that sampling and measurement techniques used to determine baseline parameters must yield results which are equivalent to the results obtained per the techniques and methodologies specified for the reformulated gasoline program. However, because of constantly evolving test methods, in addition to the fact that the final regulations concerning reformulated gasoline test methods will only be known today, it would be inappropriate to disallow data because it was not tested according to certain methods when there were no requirements to do so. Nonetheless, EPA is concerned that the test methods used be adequate. In a modification of the proposal, EPA will accept data determined using methods other than those required under the reformulated gasoline program, upon petition and approval, as long as the methodology or technique was a standard industry-accepted measurement technique at the time the measurement was taken. If data to be used in the baseline determination was, somehow, obtained via a more accurate test method prior submission of the baseline to EPA, it may be acceptable. The baseline auditor will verify that the techniques used to determine the baseline data meet the requirements discussed above. Although not previously discussed, EPA is allowing oxygen content, as well as oxygenate volume, to be determined from oxygenate blending records. The composition of the oxygenate, with regard to the other required fuel parameters, must still be determined.

[75] In instances where a sample was mislabeled or improperly tested or where an analysis results in a value which is significantly different from expected values based on operating conditions, etc., the result may be excluded from the baseline calculation. However, all instances of such exclusion must be documented and verified by the auditor.

5. Baseline Fuel Parameter Determination

a. *Closely integrated gasoline producing facilities.* Based on earlier comments, on February 26, 1993 EPA proposed to allow blending facilities (or terminal operations) to be included in a refinery's baseline determination if a closely integrated relationship could be shown between the refinery and the terminal. EPA also requested comments as to what criteria would constitute "closely integrated". Many commenters supported allowing a single baseline for such a situation. Requiring 60–75 percent of a blending facility's blendstocks to have come from a single refinery was suggested for defining a closely integrated refinery-terminal relationship. EPA is promulgating the proposal with the requirement that at least 75 percent of the blendstock received at the terminal in 1990 must have come from the associated refinery. EPA believes this is a reasonable number, as explained in the RIA, considering that oxygenates and butane, among others, are blended into gasoline after the refinery, while constituting much less than 20 percent of gasoline by volume.

In the case of an aggregate refiner baseline, as discussed in paragraph 6.d, a terminal or terminals may be included in the aggregate baseline if each terminal received at least 75 percent of its blendstock from one or more of the aggregated refineries with which it is associated. For instance, the 75 criteria is satisfied if the terminal received 25 percent of its 1990 blendstock from refinery A and 50 percent from refinery B, refinery A and B being part of an aggregate baseline. Alternatively, it may also have received the entire 75 percent from either refinery A or B.

Although not previously proposed, some comments were received regarding other types of closely integrated facility relationships. EPA is thus allowing a single individual baseline to be determined for two or more refineries (or sets of gasoline blendstock-producing units) which are geographically near each other but are not within a single refinery gate, and whose 1990 operations were significantly interconnected. The burden is placed on the refiner to show that its two facilities are "significantly interconnected". In this case, the two facilities will have a single set of baseline parameter values and associated emissions.

Some commenters suggested that U.S. refiners with import operations also be allowed to develop a single baseline covering their refining and importing operations. EPA rejected this suggestion because it would be difficult for EPA to track a fuel's production location before the fuel is or was imported, particularly when considering 1990 production. Also, allowing such a situation would amount to trading between foreign and domestic refineries, which was not mandated nor intended by Congress.

b. *Seasonal weighting.* In the February 26, 1993 proposal, EPA proposed that a refinery's own production volumes of summer and winter gasoline (based on RVP) be used in the weighting of data on a summer and winter basis. This change from the previous proposal received a lot of support, and is being promulgated as proposed on February 26, 1993. As discussed in paragraph 6.a, the 1990 annual baseline volume is the larger of the gasoline volume produced in or shipped from the refinery in 1990. Thus, a refinery's own baseline volumes of summer and winter gasoline (either on a produced or shipped basis) shall be used for weighting the summer and winter anti-dumping emissions and sulfur, olefins and T90 values. As proposed, all volume which is not summer volume is considered winter volume.

c. *Grade weighting.* On February 26, 1993, EPA proposed that average fuel parameter values be determined first for each grade of gasoline produced, and the resulting values weighted by the fraction of each grade sold in the period over which the value is determined. Based on comments, the proposal has been modified and, for this final rule, "grade" shall mean each traditional grade of gasoline produced in the refinery in 1990, e.g., regular, midgrade, and premium, not each different integer octane number.

d. *Equations.* The equations have been modified slightly from the February 1993 proposal to require that specific gravity be included in the determination of baseline sulfur and oxygen contents. Because both of these fuel parameters are determined on a weight basis, and because gasoline and blendstocks vary, sometimes significantly, in weight-to-volume ratio, correct accounting of such terms must include a weight-to-volume conversion. Additionally, separate average baseline fuel parameter values must be determined for summer and winter, as discussed previously.

e. *Oxygen in the baseline.* In the April 16, 1992 proposal, EPA discussed several methods of accounting for oxygen in the baseline determination. Several commenters suggested that the baseline be determined on a nonoxygenate basis so as not to penalize those who "reformulated", i.e., produced cleaner gasoline, early. Others supported including only the positive difference (i.e., an increase in oxygen use) between 1990 and post-1994 oxygenate use. Others suggested variations—excluding it in the baseline but including it in compliance, and including it as is in both the baseline and compliance calculations. Others argued that oxygenate used in conventional gasoline designated for areas for CO reduction purposes should not be considered.

The anti-dumping provisions of section 211(k)(8) are based on a comparison of 1990 and post-1994 emissions, and use of an oxygenated baseline for compliance determination would be the most appropriate baseline. EPA is therefore requiring baseline fuel parameter values to be determined on an oxygenated basis. Section 211(k)(8)(C) of the Act also requires that increases in NO_X emissions, due to conventional gasoline oxygenate use, be offset by reductions in the other three pollutants. As stated earlier, significant VOC and CO reductions will occur even without the reformulated gasoline rulemaking. To ensure that an increase in NO_X emissions is not associated with the use of oxygen, EPA is allowing refiners to choose to use either an oxygenated or nonoxygenated baseline when determining NO_X emissions. Compliance would be measured on the same basis. Under this provision, a refiner could choose to switch from a nonoxygenated to an oxygenated baseline, beginning with the next averaging period. The initial choice to use an oxygenated baseline, or the switch from a nonoxygenated to an oxygenated baseline is, however, permanent. EPA expects a refiner to operate its refinery to its advantage, and thus it is not likely to make such decisions (of whether to use a nonoxygenated or an oxygenated baseline for NO_X purposes) lightly. Additionally, Congress intended that the anti-dumping program compare a refiner's 1990 emissions with its post-1994 emissions, based on its fuels' actual average composition, i.e., its actual oxygenated baseline or oxygenated compliance value. EPA is allowing refiners to use a nonoxygenated or an oxygenated baseline when determining NO_X emissions in order to fulfill the provision that NO_X increases due to oxygenates be offset. However, to minimize unnecessary administrative complications due to every refiner potentially changing its baseline NO_X value annually, EPA is allowing only the one-time change.

In determining the nonoxygenated parameter values from the oxygenated values, only the physical dilution and distillation effects of the oxygenate shall be considered. Adjustments to refinery operations that would have been different had oxygenates not been used (i.e., octane) shall not be included because many potential adjustments are possible. For instance, if a refiner's actual (oxygenated) baseline aromatics were 30 volume percent and actual oxygenate use was 5 volume percent, the nonoxygenated baseline aromatics value would be 31.6 volume percent, or 30/(100% − 5%). While it is likely that reformer severity may have been higher had oxygenates not been used (thus resulting in perhaps even a higher aromatics baseline value) such operational effects due to oxygenate use shall not be considered because they cannot be known with certainty. Additionally, while the oxygen content and the effects of oxygenate volume on parameters will be excluded from the nonoxygenated baseline determination, the total gasoline volume (including actual 1990 oxygenate use and the volume of oxygenate assumed or shown to have been blended with gasoline blendstock as discussed in paragraph 3.b) will be used to determine the individual 1990 baseline volume.

A few commenters suggested that oxygenate volume be excluded from conventional gasoline volumes. EPA disagrees—Congress specified that certain NO_x emissions increases be offset, but did not specify how to deal with baseline volumes, leaving it to EPA's discretion. Additionally, the reason for allowing NO_x emissions to be evaluated on a nonoxygenate basis in the first place is so as not to penalize refiners whose emissions increase due to oxygenate use. It is possible that restricting baseline volumes by excluding oxygenate volumes could penalize some refiners. Thus, it would be inappropriate for EPA to restrict the applicability of the individual baseline to the nonoxygenated gasoline volume.

f. *Work-in-progress.* EPA proposed criteria for allowing a work-in-progress (WIP) adjustment on April 16, 1992. In the February 26, 1993 proposal, EPA expanded the proposed criteria in several areas. A WIP adjustment allows the refiner to modify its baseline volumes and fuel parameter values (which affect emissions) to account for the WIP. A more detailed discussion of the rationale and background concerning WIP adjustments may be found in the RIA.

Several comments reiterated a concern expressed in the regulatory negotiation discussions that a WIP adjustment should be a limited exception, structured so that few refiners would qualify. EPA agrees that the criteria for a WIP adjustment should be fairly stringent, as the adjustment was intended only for those for whom a significant investment had already been made in order to comply with another government mandate. Additionally, a broad program of adjustments could indicate that EPA exceeded its equitable discretion under Alabama Power, as discussed in the RIA. Nonetheless, most commenters supported allowing WIP adjustments for significant differences between unadjusted and WIP-adjusted values of exhaust benzene emissions, exhaust toxics emissions, NO_x emissions, sulfur, olefin or T90, instead of just exhaust benzene emissions as proposed in April 1992. A few commenters suggested reducing the threshold comparison criteria (between WIP-unadjusted and adjusted values) of 5 percent for emissions and 25 percent for sulfur, T90 and olefins. EPA agreed with the substance of these comments and is reducing the thresholds between WIP and non-WIP values. A discussion of the proposed and final threshold criteria is presented in the RIA. EPA's final threshold values under this requirement are that WIP-unadjusted and adjusted emissions values must differ by 2.5 percent, and sulfur, olefins and T90 values by 10 percent. Again, only one of the thresholds has to be met in order to meet this requirement.

A few comments were received regarding the requirement that the WIP be associated with other regulatory requirements, specifically, the type of the regulatory requirement that would be acceptable to EPA. EPA is clarifying this, and WIP based on a legislative or regulatory environmental requirement enacted or promulgated prior to 1/1/91 will be deemed as meeting the "associated with other regulatory requirement" criterion.

In the February 26, 1993 proposal, EPA clarified its definition of WIP as

> * * * projects under construction in 1990 and projects which were contracted for and which will be completed in time for the refiner to comply with the regulatory requirement * * *[76]

This language was included to ensure that the WIP was completed in a timely manner, since the WIP was ostensibly being done to comply with a regulatory requirement. Less than timely completion would indicate that the regulatory requirement was not a driving factor in initiating the WIP.

[76] From § 80.91(d)(5) of the February 1993 proposal.

However, EPA is not promulgating such a completion requirement because if the WIP project was not completed in a timely manner, the refiner is likely to be losing money since it cannot produce a certain fuel or meet certain emission requirements, etc. The contractual requirement discussed below will ensure that the refiner was committed to the WIP project. Additionally, EPA is specifying that an adjustment will only be allowed for WIP projects involving installation or modification of one or more gasoline blendstock- or distillate-producing units in the refinery.

As stated, EPA also proposed (and is promulgating) that WIP shall include projects under construction in 1990 and projects for which contracts were signed prior to or in 1990 such that the refiner was financially committed to permanently changing refinery operations. Clarification was requested as to what types of contracts would be considered to have committed the refiner to the WIP. EPA believes that the contracts should have committed the refiner to purchasing materials and construction of the WIP. As such, a process engineering design contract does not commit the refiner to actually implementing the WIP and would not be considered a WIP contract under this provision. Other suggestions included allowing WIP adjustments for work not necessarily associated with a regulatory requirement, including WIP which would have a beneficial effect on a refinery's overall environmental performance. Again, WIP adjustments were intended to apply only to specific situations, i.e., those relatively costly projects undertaken for mandated environmental betterment. Thus, it would not be appropriate to expand the criteria (as suggested) for qualifying for a WIP adjustment.

On February 26, 1993, EPA proposed allowing either the "10 percent" criteria from the April 16, 1992 proposal or a $10 million minimum cost of the WIP to satisfy the capital-at-risk criteria. Some commenters suggested that the requirements be more stringent—one suggested a threshold value of $50 million. Others suggested reducing the threshold value to $5 million (possibly a more appropriate value for small refiners) or 5 percent, or eliminating any "dollar" amount because no one should be penalized because its investment fails to meet arbitrary time or cost criteria. EPA believes that such criteria must be specified in order to prevent a proliferation of adjustments for other than true hardship cases. Additionally, the proposed criteria are fairly stringent requirements, and more stringent requirements could threaten the

viability of some refiners. EPA could have relaxed the criteria, i.e., set a lower dollar amount. However, as stated, the WIP provision was included to provide relief for those projects that would significantly financially impact the refiner, and not for inconsequential modifications. Thus either the "10 percent" criteria or the $10 million criteria will be allowed to satisfy this requirement.

Many comments and suggested language were received concerning EPA's February 26, 1993 proposal that a WIP adjustment would simultaneously cap a refiner's anti-dumping emissions and sulfur, T90 and olefin values at five (5) percent over the corresponding statutory baseline values. Most commenters opposed such simultaneous caps. EPA also proposed that a refiner whose WIP-adjusted baseline emissions exceeded 105 percent of anti-dumping statutory baseline emissions did not have to reduce its emissions further (to 105 percent of the anti-dumping statutory baseline) if its WIP-adjusted baseline emissions were less than its pre-WIP baseline emissions. EPA believes though that some limit on the adjustment must be included to minimize environmental harm. The limit must apply to all who are allowed a WIP adjustment. Thus, EPA is limiting WIP increases in baseline exhaust benzene, exhaust toxics and NO_x emissions and sulfur, olefins and T90 values to the larger of (1) the unadjusted individual baseline value of each emission or fuel parameter or (2) 105 percent of the corresponding anti-dumping statutory baseline value. Note that sulfur, olefins and T90 are only constrained when compliance is determined using the simple model. When compliance is determined using the complex model, the WIP-adjusted values of these three fuel parameters are not subject to the caps. Given EPA's discretion in even granting WIP adjustments, EPA believes this provision provides an acceptable balance between allowing WIP adjustments and ensuring that increases in emissions over 1990 levels are minimized.

g. *Baseline adjustment for extraordinary circumstances.* In the February 26, 1993 proposal, EPA requested comments on allowing the baseline fuel parameters, volumes and emissions of a refinery to be adjusted due to the occurrence of specific extraordinary or extenuating circumstances which caused its 1990 gasoline production to be different than it would have been had the circumstance not occurred. Many commenters felt that baseline adjustments should be allowed for the proposed situations as well as for others. One commenter stated that every site is unique, thus baseline adjustments should be evaluated on a case-by-case basis. Still others suggested that EPA allow adjustments only for small refiners, or for several other specific circumstances. Several commenters, however, felt that no extenuating circumstance baseline adjustment should be allowed. Among the reasons cited for not allowing adjustments were: competitive inequities; Congressional intent to account for 1990 only; difficulty in defining extenuating circumstances; use of this provision as a method of voiding work-in-progress requirements.

While EPA's policy objective is not to establish a broad adjustment program, EPA is allowing adjustments for specific extenuating circumstances. Allowable circumstances include unforeseen, unplanned downtime of at least 30 days of one or more gasoline blendstock producing units due to equipment failure or natural cause beyond the control of the refiner, or for nonannual maintenance (turnaround) downtime which occurred in 1990. These types of adjustments reflect instances where the 1990 baseline truly deviated from the otherwise expected baseline (historic and future), had the incident not occurred.

EPA is also permitting baseline adjustments for certain refiners which produced JP–4 jet fuel in 1990. As discussed in the RIA, EPA believes that it has authority to allow such adjustments due to the discretion afforded EPA by Congress. Additionally, *Alabama Power* v. *Costle*[77] gives EPA "case-by-case discretion" to grant variances or even dispensation from a rule where imposition of the requirement would result in minimal environmental benefit but the would extremely burden a regulated party. While the anti-dumping requirements, in general, apply to all conventional gasoline whether or not reformulated gasoline is also produced, under the criteria mentioned above, no "dumping" will occur since no reformulated gasoline will be produced by such refiners. Congressional intent with regard to the anti-dumping program will be met while not unduly burdening those that meet the specified criteria.

JP–4 baseline adjustments are generally limited to single-refinery refiners because such refiners have no way to aggregate baselines[78] so as to reduce the combined burden of JP–4 phaseout and the anti-dumping requirements on their operations. In some cases, if no relief were granted in this area, the viability of a refinery could be at stake. EPA is also allowing baseline adjustments for multi-refinery refiners as long as each of the refineries meets all of the specified criteria.

JP–4 production must have also constituted a significant portion of a refiner's 1990 production in order for a significant burden to exist. In its February 1993 proposal, EPA requested comment on what minimum portion of a refinery's 1990 production JP–4 should have constituted for the circumstance to be extenuating, and several different ratio options were suggested by commenters, as discussed in the RIA. As discussed in the RIA, EPA is requiring that the ratio of the refinery's 1990 JP–4 production to its 1990 gasoline production must equal or exceed 0.5.

While the adjusted emission baselines of those approved for JP–4 adjustments are likely to be higher than their actual 1990 baselines (primarily due to increased benzene and aromatics) EPA expects minimal negative environmental affects. Because the number of refineries meeting the criteria is expected to be small and the total production of all such refineries is also small, less gasoline is affected by any baseline adjustments than if the criteria were less stringent. In this situation, EPA believes that any negative environmental effects resulting from the allowed adjustments are justifiably balanced by the reduced burden on qualifying refiners.

Although EPA is allowing baseline adjustments for the specific circumstances described above, it in no way means this to be a precedent to allow adjustments for actual or so-called extenuating circumstances now or in the future. The language of the Act does not allow EPA to broadly permit baseline adjustments. Additionally, a baseline is neither unrepresentative of 1990, nor incalculable, because of post-1990 changes in crude availability, fuel specifications, fuel markets, etc. Congress certainly knew that such changes could affect baseline determinations, yet in creating the anti-dumping requirements it did not require EPA to consider such factors in determining baselines. In fact, no

[77] *Alabama Power Company* v. *Costle*, 636 F.2d 323.357 (D.C. Cir 1979).

[78] As discussed in paragraph 6.d, a refiner with more than one refinery may determine an aggregate baseline, i.e., a conventional gasoline compliance baseline, which consists of the volume-weighted emissions or fuel parameters, as applicable, of two or more refineries.

direction was given to account for two mandated fuel changes, Phase II volatility control and lead phaseout.

It is likely that circumstances for which baseline adjustments are not allowed may negatively affect some refiners. However, every refiner will be subject to future changes in markets, fuel quality requirements, etc., all of which will affect the refiner's gasoline quality and ability to comply with its anti-dumping baseline. Thus, except in extreme cases, baseline adjustments due to post-1990 changes which affect refiners would not be practical (due to the myriad circumstances which may exist) nor necessarily fair, and are definitely not supported by the language of the Act nor the intent of Congress. EPA is appropriately not providing for such adjustments.

h. *Inability to meet these requirements.* Although not previously discussed, EPA realizes that many unique circumstances will arise regarding the baseline determination. As such, if a refiner or importer is unable to comply with one or more of the requirements specified for baseline determination, it may be allowed to accommodate the lack of compliance in a reasonable, technically sound manner. It must petition EPA for such a variance, and the alternative must be verified by the baseline auditor. The petition may or may not be approved by EPA.

6. Baseline Volume and Emissions Determination

a. *Individual baseline volumes for refiners, blenders and importers.* The individual baseline volume of a refiner which utilizes Methods 1, 2 and or 3-type data to determine its baseline fuel parameters shall be the larger of the total volume of gasoline produced in or shipped from the refinery in 1990, excluding volumes exported. This provision is added because 1990 shipments and production could differ. As discussed in the RIA, while 1990 gasoline shipments actually contributed to emissions, data is available (by Methods 1, 2 or 3) on 1990 gasoline production. The difference between the shipped and produced gasoline is expected to be negligible with respect to baseline determination. Volumes of oxygenates blended into gasoline at the refinery and oxygenate assumed or shown to have been blended into gasoline downstream of the refinery, as discussed in paragraph 3.b, shall be included. The baseline volume shall be determined after all adjustments, such as for work-in-progress or extenuating circumstances, have been performed.

The individual baseline volume of a blender utilizing only Method 1-type data or having the anti-dumping statutory baseline as its individual baseline shall be also the larger of the volume of 1990 gasoline produced in or shipped from the refinery (blending facility). The individual baseline volume of an importer utilizing only Method 1 or having the anti-dumping statutory baseline as its individual baseline shall be the total volume of gasoline imported into the U.S. in 1990.

b. *Limitations on applicability of individual baselines.* In the April 16, 1992 proposal, EPA proposed to limit the applicability of a refiner's or importer's individual baseline to a certain portion of its post-1994 conventional gasoline production or imports and apply the anti-dumping statutory baseline parameter values to the volume in excess of this amount. This excess amount would reflect the portion of the post-1994 growth in gasoline production over 1990 volumes that is attributed to conventional gasoline. The refiner or importer would comply with the production weighted average of the two resulting baseline emission figures.

Most of the commenters agreed that the increase in conventional gasoline production over this baseline volume should be subject to the statutory baseline. However, commenters disagreed as to whether the increase should be determined relative to actual production or relative to capacity. In addition to agreeing with the proposal, those favoring production as the basis cited the difficulty in determining gasoline refining capacity. Those favoring capacity as the basis commented that if baselines are applied on a production basis, conventional gasoline production could be limited below capacity and reduce the capability to supply conventional gasoline to some markets. Also, commenters claimed that factors such as the Persian Gulf war and the phaseout of JP–4 jet fuel made 1990 production unrepresentative of normal industry refining activity.

While EPA agrees that 1990 production may have been unrepresentative of normal operations in some ways, it believes that some unusual circumstances occur every year and the limitation of individual baselines to 1990 production, as described above and in the RIA, is the better choice for minimizing emission increases and market distortions. Thus EPA is promulgating this requirement as proposed except that baseline volume shall be based on 1990 gasoline shipments rather than production. Gasoline shipments better reflect volumes actually in the market in 1990. For a refiner, its 1990 total volume would be its 1990 actual gasoline shipments, including adjustments to account for WIP or extenuating circumstances, and including oxygenate volume.

c. *Baseline emissions determination.* Every refinery must develop a set of individual baseline parameters, volume and emissions. Prior to 1/1/98, compliance with baseline emissions must be determined using either the simple or complex model equations for exhaust benzene. In the case of the simple model, only fuel benzene and fuel aromatics are considered—VOC changes which may affect benzene emissions are not considered. Beginning 1/1/98, compliance with baseline emissions must be determined using the complex model for total exhaust toxics and NO_X.

As discussed in Section IV, there are separate complex models from which to determine summer and winter emissions. As such, average baseline fuel parameters must be determined separately for summer and winter. Conventional gasoline baseline emissions (and sulfur, olefins and T90 values) will first be determined separately, on a summer and winter basis, using summer and winter fuel parameter values (except that average winter RVP will be 8.7 psi, as discussed in the RIA). The summer and winter emissions (and sulfur, olefins and T90 values) will then be weighted by the respective summer and winter baseline volumes to determine annual average baseline emissions (and sulfur, olefins and T90 values). Compliance is determined in a similar manner.

As also discussed in Section IV, there are two complex models—one for use prior to 2000 and one for use in 2000 and beyond. As such, every refinery will have two sets of baseline total exhaust toxics and NO_X emissions—one set applicable prior to 2000, and one in 2000 and beyond. Note that baseline fuel parameter values and volume do not change, only the emissions determined from those parameters. In the case of NO_X, it is likely that every refinery will actually have four potential baseline NO_X emissions values, depending on whether a nonoxygenated or an oxygenated baseline is used to evaluate NO_x emissions (see discussion in paragraph 5.e).

Many commenters were also concerned about the effect of future revisions to the complex model on 1990 baseline emissions and future compliance, particularly should additional fuel parameters be added to the model. In the event of revisions to the complex model, EPA will

promulgate additional regulations which will consider the impact on conventional gasoline, including consideration of lead time, cost and other factors.

d. *Conventional gasoline compliance baselines.* The Clean Air Act refers to gasoline sold by a refiner, blender or importer (section 211(k)(8)(A)), but does not specify an averaging unit for baseline determination nor whether gasoline and the resulting emissions should be treated on a refinery or refiner basis, thus authorizing EPA to adopt the most appropriate method of complying with the anti-dumping requirements. EPA considered three possible options for baseline determination—refinery basis, refiner basis, or some combination of the two. During the regulatory negotiation, it was agreed that EPA would propose allowing a refiner to elect to establish an individual baseline. In the April 1992 proposal, EPA proposed that refiners could choose either refiner-wide averaging or refinery-by-refinery averaging, but not a combination of the two. This was to avoid situations where multi-refinery refiners could game the system and potentially gain a significant competitive advantage over single-refinery refiners.

Although, as stated, EPA expressed concern about multi-refinery refiners' having an advantage over single-refinery refiners, few commenters agreed with EPA's April 1992 proposal. Of those that did agree, some suggested that all refineries should be required to comply with their individual baselines, to minimize any advantages for multi-refinery companies over single refinery companies.

However, most of the comments received on this issue claimed that EPA had not interpreted this provision correctly from the Agreement-in-Principle. The agreement, according to the commenters, allowed refiners to decide how to aggregate their refineries' baselines. Some suggested that if aggregations are only allowed as proposed, compliance with the simple model, complex model and/or anti-dumping requirements would be difficult.

Upon further consideration of this issue, EPA is allowing refiners to choose to have one or more individual refinery conventional gasoline compliance baselines and one or more "refiner" baselines (i.e., more than one grouping of two or more refineries to form a compliance baseline). Because the decision to group or not group refineries is a onetime decision, and because a refiner's total emissions will be conserved, the possibility of gaming will be reduced. When two or more refineries are grouped for the purpose of having a single conventional gasoline compliance baseline, the refineries shall be considered "aggregated", and the resulting baseline shall be an "aggregate" baseline.

Aggregate baselines are determined by volume-weighting the baseline emissions and sulfur, olefin and T90 values of the aggregated facilities. If aggregated, all NO_x baselines in an aggregate must be determined either on a nonoxygenated or an oxygenated basis, using the corresponding nonoxygenated or oxygenated baseline parameters. The choice of whether a refinery has its own individual baseline or is part of an aggregate baseline is a one-time decision, i.e., refineries cannot be re-aggregated annually. Also, an individual baseline (including both parameter and emission values) must be calculated for each refinery, whether that refinery will be part of an aggregate baseline or not. This is required because reformulated gasoline compliance under either the simple model or early use of the complex model is on a refinery basis. Also, individual baselines must be known in the event that a refinery is sold or shut down, or other reason why the baseline would need to be recalculated.

EPA also proposed to require individual refinery baselines for refineries located in specific isolated geographic areas where localized dumping was occurring. EPA is retaining this proposal in the final rule. Few comments were received on this issue and are addressed in the RIA.

e. *Baseline recalculation.* In its April 16, 1992 proposal, EPA proposed certain instances when baselines would have to be recalculated. Few adverse comments were received. In the case of a refinery which is shut down after 1990, EPA had proposed that an aggregate baseline which contained the shutdown refinery would not change unless the shutdown refinery was sold. However, upon further consideration, EPA believes that it is more appropriate, and more consistent with the other recalculation requirements, to remove a shutdown refinery's contributions to an aggregate baseline. EPA is thus promulgating this requirement with the other proposed requirements.

D. Baseline Auditor

In the February 26, 1993 proposal, EPA expanded on the qualifications and responsibilities of the baseline auditor which each refiner or importer must utilize to verify its baseline. Refiners and importers utilizing the anti-dumping statutory baseline, if so allowed, are not required to have a baseline auditor.

1. Auditor Qualifications

EPA proposed specific criteria for determining the independence and technical capability of the auditor (and where applicable, the auditor's organization and/or certain persons working with or for the auditor). A few commenters suggested minor changes in the proposed criteria as discussed in the RIA, and some of these recommendations are incorporated in the final rule.

EPA also proposed that the auditor retained by a refiner or importer may also have developed the baseline for the same refiner or importer as long as all other auditor qualification requirements were met. Several commenters who addressed this issue agreed that the auditor should be allowed to also be the baseline preparer, mostly from a cost savings point-of-view. Other commenters pointed out that the independence of the review would be lost. While this may diminish to some extent the value of an independent audit, the cost and time savings are relevant considerations. In balancing these concerns, EPA is allowing the auditor to also have prepared the baseline.

2. Auditor Certification

EPA proposed two options by which potential auditors could be approved by EPA as qualified to audit baselines. One option involved precertification by EPA; under this option, a statement of the auditor's qualifications would be submitted to EPA. EPA would officially certify an auditor, or if no comment were received from EPA within a specified time, the auditor would be considered certified by default. The other option required the refiner or importer to ensure that the auditor is qualified, and to provide a qualification statement for the auditor with the baseline submission. In this case, the auditor would not be pre-certified by EPA.

Most commenters agreed with allowing both options. One commenter thought that EPA should notify auditors of approval rather than letting them be certified by default, and that they should be pre-certified. EPA believes that, in most cases, it will respond in some form, not necessarily approval or disapproval, prior to the end of the allowable time period. In the proposal, EPA allowed the auditor to be certified by default after 30 days. However, EPA now believes that it should not allow an auditor to be certified by default until 45 days after application or today's date,

whichever is later, because of possible delays, e.g., mail delivery, in receiving an auditor's qualification statement.

EPA had also proposed that within thirty (30) days of hiring a baseline auditor or today's date, whichever is later, each refiner and importer must inform EPA of the name, organization address and telephone number of the auditor hired. EPA now believes this information is not critical and thus is eliminating this requirement. This information is only required in the baseline submission.

3. Auditor Responsibilities

The major issues raised by commenters concerning auditor responsibilities was whether the auditor was to verify the baseline determination or recalculate the baseline itself. EPA agrees that the auditor should independently verify the baseline determination, and is not required to develop a second baseline determination. However, the auditor must take whatever action is necessary to ensure that all baseline submission requirements are fulfilled. EPA is also requiring that a refiner's baseline submission include a statement prepared and signed by the primary analyst stating that, to the best of its knowledge, it has thoroughly reviewed the sampling methodology and baseline calculations, and that they meet the requirements and intentions of the rulemaking, and that it agrees with the final baseline parameter and emission values listed in the baseline submission. EPA is not requiring auditors to submit (to EPA) an audit plan prior to beginning the baseline verification process.

E. Baseline Submission and Approval

1. Timing

Few comments were received concerning the timing of baseline submissions, and EPA is promulgating its requirements that baselines be submitted to EPA within 6 months of today's date and that baselines determined using data collected after today be submitted to EPA by September 1, 1994. EPA will consider petitions for an extension of these deadlines, however, submitters should take note that late submissions could cause delays in receiving EPA decisions on approval of their baselines. EPA is promulgating such timing requirements in order to give the industry sufficient time to generate and audit individual baselines. EPA is well aware of the need for expeditious review of submitted baselines, and encourages submission of baselines as soon as possible after today.

2. Petitions

In many situations in the baseline determination, a refiner or importer is required to petition EPA in order to be allowed to account for a variance from a requirement. In other situations, the refiner or importer is required to "show" that it meets certain criteria. In either of these situations, approval will be given by the Director of the EPA's Office of Mobile Sources, or designee. As will be discussed below, all petitions must be included in the baseline submission—in fact, in most cases, baseline calculations have to be determined both with and without the requested variance, since the outcome of the request would be unknown. Although not previously proposed, EPA is allowing petitions and "showings" to be submitted prior to the baseline submission deadline although an early decision on the request is not guaranteed. Nonetheless, the baseline submission must be submitted by the applicable deadline, whether or not EPA has decided to approve or disapprove the request.

3. Submission Requirements

Based on comments to its proposals, EPA has determined that a number of its proposed baseline submission requirements were not pertinent to a baseline determination. EPA is thus requiring that, at minimum, the information described in § 80.93 be included in the baseline submission. Information on crudes and refinery unit operations is still required because EPA may wish to evaluate baseline submissions using a refinery flow simulation system. EPA plans to develop a sample baseline submission document which should be available soon after today.

Although not previously required in the baseline submission, the blendstock-to-gasoline ratio for each calendar year 1990 through 1993 must now be included. The blendstock-to-gasoline ratio is discussed further in Section IX, and is defined in § 80.102. Determination of this ratio is also subject to auditor verification, as is the entire baseline submission.

EPA may require submittal of more extensive data if such data is required to aid EPA in its review of the baseline submission, or if discrepancies in any part of the baseline submission are found. Additional information that may be useful to EPA in its evaluation of the baseline submission may be included, at the refiner's discretion.

EPA is slightly expanding the content required in the statement signed by the chief executive officer which is included in the baseline submission. The statement must state that the data submitted is the extent of the data available for the determination of each of the required baseline fuel parameter values, that sampling methodology and baseline calculations meet the requirements and intentions of the rulemaking, and that the final baseline parameter and emission values listed represent its 1990 gasoline, to the best of his or her knowledge.

If a refiner or importer desires that certain information in the baseline submission not be publicly available, it must a assert a claim of confidentiality, as discussed below, and include this request in the baseline submission.

4. Baseline Approval

EPA will approve baselines and upon approval publish, in the **Federal Register**, the standards for each applicable gasoline producing or importing facility of a refiner, blender or importer. Because a party's baseline will become its standard for compliance with the anti-dumping and early reformulated gasoline requirements, EPA believes the standard should be publicly known, and as discussed below, there are no compelling reasons not to publish such information. Additionally, such standards are not entitled to confidential treatment (40 CFR 2.301(e), special confidentiality rules applicable to Clean Air Act cases). Thus, upon Agency approval of a baseline, the baseline exhaust benzene, exhaust toxics and NO_X emissions values and 125 percent of the baseline sulfur, olefins and T90 values shall be published. This information is required on a refinery or facility basis because the reformulated gasoline requirements are on a refinery-basis, and because this information needs to be known in the event a refinery changes owners.

While EPA previously proposed that it would publish baseline parameter values by refinery, it now believes that no substantive comments could result from publishing such information because of the complexity of the baseline determination. Additionally, EPA realizes that certain aspects of the baseline determination must necessarily remain confidential in order to prevent serious, negative competitive effects. Thus EPA is allowing any person or organization providing information to EPA in connection with the determination of a baseline, including establishing a baseline or investigating possible baseline discrepancies, to assert that some or all of the information submitted, except the baseline emissions or parameter values which are the standard for a refiner, refinery or

importer, is entitled to confidential treatment as provided in 40 CFR part 2, subpart 2. Such confidential information shall be clearly distinguished from other information to the greatest extent possible, and clearly labeled "Confidential Business Information." Information covered by a claim of confidentiality will be released by EPA only to the extent allowed by procedures set forth in 40 CFR part 2, subpart B. Failure to submit a claim of confidentiality with submission of the baseline, however, may lead to release of information by EPA without further notice to the submitter (40 CFR 2.203 (a) and (c)).

Most comments on this topic addressed the publication of individual baseline information. Several commenters suggested publishing a refiner's or importer's anti-dumping index (ADI), a ratio of the individual baseline emissions to the statutory baseline emissions. However, there is little difference between this value and the actual value if the statutory baseline emissions are known. Another suggestion included providing such information only upon request. Again, there is little difference between "on request" and publishing such information at one time. One commenter stated that no where in the statute was publication of baseline data required. While that is true, EPA must release the standards (and any other non-CBI information) upon request, and there are benefits from publishing them, e.g., citizen suit enforcement, more information to the general public about EPA's standards, better deterrence to noncompliance. Commenters did not provide any clear or compelling reason for not publishing the standards, and there are benefits from publishing them, as discussed. Additional comments, which did not affect the final rule, and EPA responses can be found in the RIA.

IX. Anti-Dumping Compliance and Enforcement Requirements for Conventional Gasoline

The final rule implements section 211(k)(8) of the Clean Air Act which provides that beginning January 1, 1995, average per gallon emissions of specified pollutants from non-reformulated or conventional gasoline use must not deteriorate relative to emissions from 1990 gasoline on a refiner or importer basis. This could occur, for example, if fuel components or properties that cause harmful emissions and that are removed from or limited in reformulated gasoline, are "dumped" into conventional (non-reformulated) gasoline. As a result, the "anti-dumping" program limits the emissions of specified pollutants from conventional gasolines, and under certain circumstances from blendstocks (based on EPA's authority under section 211(k)(c) of the Act).

The final rule differs from the earlier proposals primarily in the area of blendstock accounting. These changes are discussed in greater detail below.

Refiners and importers must establish individual 1990 baselines in order to compare the emissions characteristics of gasoline they produced or imported in 1990 with the emissions characteristics of conventional gasoline produced or imported in 1995 and later. See section VIII for a discussion of the methods required for development of an individual baseline. The baseline for refiners who were not in business in 1990, and in certain cases for other importers and refiner-blenders, is the statutory baseline found at § 80.91(c)(5) of the regulations.

Refiners who operate more than one refinery have the option of demonstrating compliance with the anti-dumping provisions for each refinery separately, or the refiner may group its refineries and show compliance for each group separately provided that each refinery's performance is accounted for either separately or as part of a refinery group. The refiner's refinery-grouping election may not be changed after the initial election. Blendstock tracking and accounting as discussed below, must be determined in accordance with the same refinery grouping as chosen for compliance purposes.

The final rule has three separate sets of compliance standards for determining compliance with the anti-dumping requirements, however, only one set applies to a refiner or importer at any one time. These are the Simple Model standards and Optional Complex Model standards, that apply in 1995, 1996, and 1997; and the Mandatory Complex Model standards that apply in 1998 and thereafter. All three sets of standards require refiners and importers to average certain properties of conventional gasoline and demonstrate compliance with prescribed standards, which in some cases are actual fuel properties and in others are emissions products calculated from specific fuel properties.[79]

Under the Simple Model standards, a refiner or importer is required to demonstrate on an annual basis that average exhaust benzene emissions of conventional gasoline do not exceed the refiner's or importer's 1990 compliance baseline for exhaust benzene emissions, and that average sulfur, olefins and T90 each do not exceed 125% of the refiner's or importer's 1990 average levels for each of these parameters. Under the Optional Complex Model standards, annual average levels of exhaust benzene emissions, volume weighted for each batch as determined under the applicable model, may not exceed the refiner's or importer's 1990 average exhaust benzene emissions calculated in the same manner. Under the Mandatory Complex Model standards, annual average levels of exhaust toxic emissions and NO_x emissions, volume weighted for each batch as determined under the applicable model, may not exceed the refiner's or importer's 1990 average levels for exhaust toxic emissions and NO_x emissions calculated in the same manner. Refiners and importers are required to determine the emissions performance for each batch of gasoline in either the applicable summer or winter model based on whether or not the batch has been designated to comply with EPA volatility requirements.

The final rule provides that in 1995, 1996, and 1997, refiners and importers may determine compliance based on either the Simple Model standards or the Optional Complex Model standards, at their option. However, a refiner that produces reformulated gasoline under the Simple Model must use the Simple Model anti-dumping standards, and a refiner that produces reformulated gasoline under the optional complex model must use with the Optional Complex Model anti-dumping standards.

Refiners and importers are required to include the following products, which are produced or imported during each averaging period, in anti-dumping compliance calculations: conventional gasoline; non-gasoline petroleum products if required under the blendstock accounting provisions (discussed below); and gasoline blending stock which becomes conventional gasoline upon the addition of oxygenate (discussed below).

In addition, oxygenate that is added to a refiner's or importer's gasoline or blendstock downstream of the refinery or import facility may be included in the refiner's or importer's compliance calculations only if the refiner or importer is able to demonstrate with certainty that the oxygenate has been added to that party's gasoline. Provisions are included in the final rule for the manner in which refiners and

[79] For a discussion of issues concerning which properties or pollutants are covered in the federal anti-dumping program, see section VIII of this preamble and the Notice of Proposed Rulemaking, published July 9, 1991 (56 FR 31219–31222).

importers must make this demonstration.

Oxygenate blended downstream may be counted by a refiner or importer if the refiner or importer demonstrates that it performed the oxygenate blending. In addition, the oxygenate may be counted if the blending is conducted by a blender with whom the refiner or importer has a contract that specifies procedures intended to ensure proper blending, and the refiner or importer monitors the downstream blending operation through audits, inspections, and sampling and testing of the gasoline produced at the blending operation. These downstream oxygenate blending provisions are discussed more fully below.

Refiners and importers also have the option of determining compliance for exhaust NO_X emissions performance either with or without the inclusion of oxygenates provided that the baseline NO_X performance is determined in the same manner. Refiners and importers may elect to switch one time under certain conditions which are discussed more fully in Section VIII of the Regulatory Impact Analysis.

Enforcement of the anti-dumping standards under this rule consists of a combination of mechanisms to monitor compliance with the regulations, including: refiner/importer sampling and testing of gasoline produced or imported; record keeping; reporting; annual audits by refiners and importers; and Agency audits.

The final rule specifies the manner in which penalties will be determined for violations of the anti-dumping requirements of the final rule. These penalty provisions include calculations of the number of days of violation, and presumptions regarding the properties of gasoline.

Under the anti-dumping requirements in the final rule, certain refiners are also required to account for blendstocks that are produced. The principal policy reason for imposing blendstock tracking and accounting is that, unless proscribed, certain refiners will have an incentive to transfer blendstocks based on the differences in baselines that will exist. These differences thus could result in the transfer of the "production" of gasoline from a refinery with a more rigorous baseline to another refinery with a less rigorous baseline, through the transfer of blendstocks. This transfer-of-blendstocks concern is described more fully below.

Refiners and importers are required to establish a baseline of the volume of certain specified blendstocks[80] produced and transferred to others, relative to the volume of gasoline produced (the "blendstock-to-gasoline ratio"). This baseline is established by determining, for each calendar year 1990 through 1993, the volumes of blendstocks produced and transferred, the volumes of gasoline produced, and calculating the annual and four-year average blendstock-to-gasoline ratios. Refiners may include in baseline calculations only those volumes of blendstocks for which the refiner is able to demonstrate the blendstock was used in the production of gasoline. This baseline blendstock-to-gasoline ratio must be established using the baseline auditing procedures described in § 80.93.

Beginning in 1995, refiners are required to determine the blendstock-to-gasoline ratio for each calendar year compliance period. This compliance period ratio is then compared with the baseline ratio. During each year 1995 through 1997, the annual compliance period ratio is compared with the largest ratio of the individual annual baseline ratios. Beginning in 1998, the compliance period ratio will be the running four-year average of the annual ratios,[81] instead of an annual ratio. This is then compared with the baseline four-year average ratio.

In the case of both the annual comparisons before 1998, and the average comparisons beginning in 1998, if the compliance period ratio exceeds the baseline ratio by ten percent or more special blendstock accounting must be carried out by the refiner, unless certain exemptions are met or the refiner has been granted a waiver by EPA.[82] These exceptions to blendstock accounting are discussed more fully below.

In a case where special blendstock accounting is required, the refiner must include the properties of all blendstocks produced in its compliance calculations for the two subsequent averaging periods. In addition, the refiner must notify any recipients of such "accounted-for" blendstocks that the downstream party may not include the properties in that party's calculations. The second and subsequent times that the compliance period ratio exceeds the ten percent threshold, special blendstock accounting is required for the four years subsequent to the second exceedance.

The final rule includes a provision that allows a refiner to petition for a waiver from special blendstock accounting in a case where the volume of blendstock produced is the result of extreme or unusual circumstances which are clearly outside the control of the refiner and could not have been avoided, such as fire, accident, or natural disaster.

Blendstock tracking is limited under the final rule. Refiners with an annual compliance period blendstock-to-gasoline ratio of three percent or less are exempt from special blendstock accounting, regardless of how the compliance period ratio compares with the baseline ratio. This exemption is included because, in such a circumstance, there are limited environmental effects, and the party has a limited ability to gain economic advantage from transferring production to a less rigorous baseline.

The final rule also excludes from the blendstock tracking and accounting requirements blendstocks that are exported, transferred to a refiner for use as a refinery feedstock, or are transferred between refineries that have been aggregated under a common baseline. Also excluded are transfers for other than gasoline blending purposes, e.g., transfers of product for use in a chemical process, because such other-than-gasoline-blending use renders the product non-blendstock by definition. Such transactions are not indicative of an attempt by a refiner to gain an improper baseline.

A. Blendstock Accounting

EPA's 1991 Notice Of Proposed Rulemaking for the anti-dumping program proposed compliance based on the properties of finished gasoline only and did not address accounting for blendstocks. Commenters on this Notice stated that the proposed anti-dumping regulations would create the opportunity for certain refiners to avoid the normally-applicable baseline through the transfer of gasoline blendstocks to another refiner with a more lenient baseline. This opportunity derives from the fact that the 1990 individual baseline for a large percentage of the refiners is more

[80] The blendstock tracking requirements apply only to certain blendstocks that have properties that are "dirtier" than the 1990 Clean Air Act average fuel parameters for anti-dumping. Use of the term "blendstock" also means that tracking applies only to non-gasoline petroleum products that are used in the production of gasoline (see 40 CFR 80.2(s)). As a result, refiners and importers are not required to track non-gasoline petroleum products where the refiner or importer can demonstrate these products are used for a purpose other than gasoline blending.

[81] In 1998, the compliance period ratio consists of the average of the ratios for 1995 through 1998; in 1999, the compliance period ratio consists of the average of the ratios for 1996 through 1999; etc.

[82] For example, if the largest baseline annual ratio for a refinery is 5%, and the 1995 ratio for that refinery is 10%, this increase would be 100%, and special blendstock accounting would be required for that refinery unless exempted for other reasons.

stringent than the 1990 average. According to the commenters, a refiner who operates a refinery with such a more-stringent-than-average baseline could effectively achieve an easier baseline by shifting blendstocks produced at that refinery to another refinery with a less stringent baseline. Gasoline could then be "produced" at the blendstock-transferee refinery using blendstocks produced at the blendstock-transferor refinery. This strategy could be accomplished, for example, through the transfer of blendstocks to a refiner-blender who would use the statutory average baseline, such as a new business. Commenters stated concern that refiners using this strategy would achieve a significant competitive advantage.

EPA agreed with these concerns, and in the 1992 Supplemental Notice of Proposed Rulemaking proposed requirements on the methods of accounting for gasoline blendstocks. This blendstock accounting proposal was included to limit the adverse environmental effects of such production transfers, by ensuring that each refiner meets the anti-dumping standards using the baseline that properly applies to the refiner.

In order to avoid the baseline-shifting possibility, EPA proposed that refiners would be required to either include in the refinery compliance calculations all blendstocks produced at a refinery, or the products would be prohibited for subsequent use in blending gasoline. Under this proposal, refiners would be required, with certain exceptions, to chemically mark un-accounted-for products to ensure they are not used by downstream parties for gasoline blending. This proposal included provisions intended to ensure that blendstock would be included in anti-dumping compliance calculations by only one refiner, and prohibitions intended to prevent the use of marked petroleum products in gasoline production.

Commenters on the 1992 proposal objected to the blendstock accounting/marking scheme because of its impact on the refining industry. Commenters raised concerns regarding the liability scheme and the paperwork requirements associated with the accounting and the marking of blendstocks. Commenters also contended that the marking of blendstocks would be disruptive to the chemical industry.

In response to these comments, EPA proposed a significantly revised blendstock accounting mechanism in the 1993 Supplemental Notice of Proposed Rulemaking. This proposal eliminated the requirement that refiners account-for or mark blendstocks and eliminated the prohibitions and liabilities associated with the use of marked blendstock. Under this revised mechanism, refiners would be required to monitor the volume of certain blendstocks produced at each refinery relative to the volume of gasoline produced. If for any year the proportion of a refinery's production that is blendstock (the "blendstock-to-gasoline ratio") increased relative to the refinery's baseline blendstock-to-gasoline ratio by ten percent or more, with certain exceptions the refinery would be required to account for all blendstocks produced at the refinery during the year of the failure, or in the alternative any blender-recipient of blendstock produced at that refinery would be required to use the refinery's baseline when accounting for such blendstock during the year of the failure.

Under the proposal, a refiner would be exempt from special blendstock accounting if the refiner's blendstock-to-gasoline ratio for any compliance year is three percent or less, regardless of how the increase compares with the baseline ratio. Blendstock tracking would be required only for refiners having a 1990 baseline more stringent than the anti-dumping statutory baseline. These provisions were designed to limit the blendstock accounting provisions to those circumstances where there is likely to be an environmental problem. This also would help to avoid unnecessary costs and burdens on the regulated community. In any case where EPA can show that a refiner transferred blendstocks in order to evade a more stringent baseline, however, the special blendstock accounting would be required.

The proposed regulations would require refiners to track only specified blendstocks that have properties that are "dirtier" than normal anti-dumping baseline properties; a list of such blendstocks was included. In addition, tracking would not be required under the proposal for petroleum products the refiner could establish are used for non-gasoline-blending purposes.

EPA received substantial comments on the blendstock accounting mechanism included in the 1993 proposal.

Several comments addressed the manner in which the compliance period blendstock-to-gasoline ratios are compared to the baseline ratios. Several commenters said that the blendstock-to-gasoline ratio for any annual averaging period should be compared to the largest single-year ratio during the baseline period, and not to a multi-year averaging period as proposed. This change is necessary, according to one commenter, because refinery equipment is shut-down for maintenance during normal refinery operations (or a refinery equipment "turnaround"), and that such turnarounds often will result in increased blendstock shipments from a refinery. An industry group commenter further stated that most refinery equipment goes through a maintenance turnaround every four years. Other commenters suggested that the possibility of triggers due to erratic blendstock-to-gasoline ratios should be solved by enlarging the ten percent ratio threshold.

EPA agrees with the concerns raised by these comments, and has modified the manner in which blendstock-to-gasoline ratios are compared in the final rule. During 1995 through 1997, the annual compliance period blendstock-to-gasoline ratio is compared to the largest one-year ratio during the baseline period. Beginning in 1998, however, because of data availability due to the implementation of the reformulated gasoline regulations the compliance period ratio is a running average consisting of the average of the current year's ratio and the ratios from the three previous years. This four-year compliance period ratio is compared to the similar four-year baseline ratio. EPA believes this approach to evaluating blendstock-to-gasoline ratios responds to the concerns raised by the commenters, and will minimize if not eliminate the chance that the ten percent threshold will be exceeded because of maintenance, turnarounds and other like events that do not indicate a transfer of production to achieve a less stringent baseline. For example, any increase in blendstock sales volume during the compliance period that is due to refinery equipment turnaround should be matched by blendstock sales volume during the baseline period that also is due to a turnaround. Beginning in 1998 the comparison of four-year averages should further dampen any unusual, short-term deviations from the normal proportion of refinery sales that is blendstock.

EPA believes comparing the blendstock-to-gasoline ratio of a four-year compliance period with a four-year baseline period provides the best indication of a refiner's overall approach to blendstock production, because of its correlation with the normal period of refinery equipment turnarounds. During the first three years of the program when a four-year compliance period is not possible, however, the approach of comparing

each compliance year's blendstock-to-gasoline ratio with the largest single year's ratio during the baseline period is the best alternative.

EPA believes the one-year ratio comparison approach is inferior to the four-year ratio comparison approach as a long-term program mechanism, because under the one-year approach there is the potential for refiners to have large blendstock-to-gasoline ratios in each year that are not due to normal refinery operations, yet these ratios would be acceptable if smaller than the largest one-year ratio from the baseline period. The final rule nevertheless includes the one-year approach for 1995 through 1997, because refiners will be required to include 1995 through 1997 blendstock ratios in their 1998 four-year average ratio. Any refiner who has produced excess blendstock in order to "game" the one-year comparison approach during the first three program years is likely to fail the more appropriate four-year comparison in 1998. EPA believes the likelihood such a refiner would violate the ten percent threshold and incur the consequent blendstock accounting requirements will constrain refiner gaming of this type.

EPA has retained the ten percent blendstock-to-gasoline ratio trigger in the final rule, however, because a trigger at this level is appropriate for the like-time-period comparisons used in the final rule. With the promulgated approach, EPA believes that blendstock sales increases in excess of the trigger are only likely to occur in cases where a refiner attempts to improperly gain use of a less stringent baseline.

Several comments focused on the two options proposed for special blendstock accounting, the first option with the refiner accounting for the blendstock and the second option with the downstream refiner-blender using the baseline of the blendstock producer-refiner. These commenters stated that refiners using the refiner-accounting option would have difficulty if it became apparent late in the year that the ratio threshold would be exceeded, because the required adjustment must reflect the total volume of all blendstocks produced and sold during the entire year. These commenters stated that the refiner-accounting option also would be difficult to implement because downstream refiner-blenders of the blendstock, who would have included blendstock received during the year in compliance planning, would have to recalculate compliance with the refiner-accounted blendstock excluded. Similar timing and complexity concerns were expressed in the case of a refiner who selected the option of shifting the refiner's baseline to blendstock recipients.

EPA agrees with these comments, and has modified the final rule as a result. In any case where the blendstock-to-gasoline threshold is exceeded, special blendstock accounting is required beginning in the subsequent averaging period. This change will avoid the timing and complexity problems of requiring refiners and downstream blendstock recipients to recalculate compliance retroactively for the compliance period during which the threshold is exceeded. In addition, EPA has rethought the option of allowing refiners to pass the refiner baseline to blendstock recipients, and has excluded this option from the final rule. EPA believes that the burden of special blendstock accounting should fall on the refiner that produces the excess blendstock, and such parties should not be allowed to pass the accounting responsibility to downstream parties. EPA proposed the option of allowing refiners to pass the refiner-baseline to downstream blender-refiners in order to allow more flexibility in meeting the anti-dumping requirements. EPA now believes that this flexibility advantage is outweighed by countervailing considerations, including the complexity that results from this option, the equity in placing the blendstock accounting responsibility only on the refiner who has control over the volume of blendstocks that is produced, and the inequity that could result if a refiner imposed a more stringent baseline on downstream blender-refiners.

One commenter expressed concern that the reason EPA proposed blendstock accounting measures was to prevent new blender-refiners from entering the market in order to correct a perceived "loophole" in the proposed rules, and that such market manipulation by EPA is inappropriate.

EPA agrees that the anti-dumping program should not preclude new blenders from entering the market, and does not believe that the final regulations have such a result. Any refiner who enters the market beginning in 1995 will have the same regulatory requirements as refiners who were in business before that date. They of course will have the statutory baseline and not a baseline that is more stringent than the statutory baseline. A new refiner would therefore not be subject to the blendstock accounting requirements.

EPA has implemented the following changes in the final rule in response to comments: (1) The gasoline portion of the compliance period blendstock-to-gasoline ratio has been expanded to include all gasoline produced, including reformulated gasoline and RBOB, because a comparison to conventional gasoline alone would more likely cause the trigger to be exceeded and not represent true incidences of dumping; (2) straight run naphtha has been excluded from the list of applicable blendstocks that are included in the blendstock portion of the blendstock-to-gasoline ratio, because properties of this product are cleaner than the anti-dumping statutory baseline; and (3) feedstocks, exported blendstocks, and blendstocks transferred between refineries that are aggregated for compliance purposes are excluded from the blendstock portion of the ratio, as they are not indicative of a transfer of production to avoid a more stringent baseline.

EPA proposed that refiners would be exempt from special blendstock accounting if the compliance period blendstock-to-gasoline ratio is three percent or less, regardless of how this ratio compares with the baseline ratio. One commenter stated that EPA should either reduce the three percent threshold for this exemption, or eliminate the exemption altogether. The commenter claimed that refiners could produce primarily dirty blendstocks (e.g., benzene) within the three percent limit for sale into the downstream market, which would result in environmental degradation. This commenter further stated that with the three percent exemption, only approximately fifteen percent of refiners would be required to monitor the blendstock-to-gasoline ratio under EPA's proposed scheme. This commenter also stated that the blendstock tracking provisions should apply to all refiners and not only to parties with more-rigorous-than-statutory baselines, because all parties have the opportunity to sell dirty blendstocks into the downstream market.

EPA disagrees with the concern raised by this comment. Any party who combines blendstocks to produce conventional gasoline, or who combines blendstocks (other than oxygenate) with conventional gasoline, is considered to be a "refiner" under the anti-dumping regulations, and is required to meet all anti-dumping standards and requirements. Moreover, such a blender-refiner is required to meet anti-dumping standards only on the basis of the volume and properties of the blendstock used, and may not include in compliance calculations the volume and properties of any gasoline used in blending. Any blender-refiner must, therefore, offset any "dirty" blendstocks

used with sufficient "clean" blendstocks to meet the anti-dumping standards on average. Most downstream blender-refiners will be subject to the anti-dumping statutory baseline.

EPA believes these requirements on blender-refiners will limit the opportunities for refiners to produce and sell "dirty" blendstocks. In addition, because any "dirty" blendstocks must be offset with "clean" blendstocks the gasoline produced will cause no environmental degradation.

EPA does not agree with the comment that all refiners could gain an advantage from shifting blendstocks regardless of their baseline. Only refiners with a baseline more-stringent-than-statutory could shift blendstocks to another refiner with the average baseline and thereby circumvent the anti-dumping requirements. For a refiner with a less-stringent-than-statutory baseline, the statutory baseline is more stringent. As a result, blendstock shifted by such a refiner to another refiner with the statutory baseline would have to meet standards as measured against a more stringent baseline. A refiner with a less-stringent-than-statutory baseline similarly would not be able to circumvent the baseline provisions merely by shifting blendstock to another refiner with an even less stringent individual refinery 1990 baseline, because the volume of gasoline that may be produced against the individual refinery 1990 baseline is limited to the second refiner's 1990 equivalent gasoline volume.[83] Compliance for any gasoline produced in excess of the 1990 equivalent gasoline volume is measured against the Clean Air Act statutory baseline. In consequence, if blendstocks are shifted by one refiner to another with a more lenient baseline, in effect the shifted blendstock must meet standards measured against the statutory baseline.

As a result, EPA has not included in the final rule any provisions that would limit the volumes of blendstocks that are produced and sold, except for the provisions intended to address the baseline-shifting strategy.

B. Inclusion of Oxygenate in Anti-Dumping Compliance Calculations

Oxygenates are included in the set of products that may be included in anti-dumping compliance calculations under certain conditions, because the oxygenate used in the production of conventional gasoline alters the results of the anti-dumping compliance calculations. As a result, where a refiner or importer is able to establish that oxygenate is in fact added to gasoline or blendstock produced or imported by that party, it is appropriate to allow the refiner or importer to include the oxygenate in compliance calculations. This approach to oxygenate use under anti-dumping is consistent with the proposals, but the final rule clarifies the manner in which parties must demonstrate that oxygenate is in fact used.

In the SNPRM 92 and SNPRM 93, EPA proposed that the inclusion of oxygenate volume in compliance calculations by refiners and importers would be optional, except as required in the calculation of other exhaust emission products under the applicable model. These proposals did not, however, specify the manner in which the oxygenate use showing must be made. EPA believes the provisions included in the final rule dealing with the oxygenate use showing during compliance periods is necessary in order to ensure conventional gasoline emissions are accurately reported.[84]

Oxygenate blenders are not required to demonstrate compliance with anti-dumping standards because the blending of oxygenate has only a positive effect on the quality of gasoline or blendstock with which oxygenate is blended with regard to the properties or emission products regulated under anti-dumping.[85]

Oxygenate that is blended at a refinery or import facility would be included in compliance calculations as a matter of course because the oxygen (along with all other gasoline constituents) would be reflected in the batch analyses conducted of the gasoline using samples collected before the gasoline left the refinery or import facility.

The requirements that must be met in order for refiners and importers to be allowed to claim oxygenates which are blended downstream are similar to the requirements relating to reformulated gasoline blendstock for oxygenate blending (RBOB) in the reformulated gasoline program. The thrust of these requirements is that the refiner or importer must show that the oxygenate claimed was in fact added to the refiner's or importer's gasoline. This could be shown if the refiner or importer is able to demonstrate that it blended the oxygenate while the gasoline (or gasoline blendstock) is still owned by the refiner or importer.

If the downstream blending is carried out by a person other than the refiner or importer, in order to include the oxygenate in its compliance calculations the refiner or importer must have a contract with the downstream blender which mandates procedures that are necessary for proper blending. In addition, the refiner or importer must monitor the downstream blending operation in a manner reasonably calculated to ensure the oxygenate use claimed by the refiner or importer is accurate. Such monitoring must include audits, inspections, and sampling and testing of gasoline produced by the downstream blender.

The provisions that must be included in the contract with the oxygenate blender are those which the refiner or importer believes are necessary to ensure the oxygenate claimed by the refiner or importer is in fact added. At a minimum, the contract should provide for the inspections, sampling and testing, and audits by the refiner or importer over the oxygenate blending operation, as well as any quality assurance measures the refiner or importer feels the oxygenate blender should carry out. The contract also could specify the technical manner in which oxygenate is blended, if necessary to support the refiner's or importer's oxygenate use claims.

The inspections and periodic sampling and testing oversight requirement is intended to ensure any oxygenate-use claims by a refiner or importer are supported by the actual oxygenate blending that occurs. The sampling and testing must be of the gasoline that is produced at the oxygenate blending operation, using base gasoline that was produced or imported by the refiner or importer. If

[83] The 1990 equivalent gasoline volume is a calculated volume that subtracts from the refiner's 1990 total gasoline volume the volume of reformulated gasoline produced by the refiner during the compliance period.

[84] EPA proposed that any refiner or importer who elects to include oxygenate in its compliance calculations would be required to include oxygenates in its 1990 baseline as well. Under the final rule, however, refiners and importers are required to include oxygenate in anti-dumping baselines whether or not oxygenate is included in compliance calcuations. The baseline-setting process, including the treatment of oxygenate, is discussed in preamble section VIII.

[85] Under 40 CFR 80.2(ll), an oxygenate blending facility is "any facility (including a truck) at which oxygenate is added to gasoline or blendstock, and at which the quality or quantity of gasoline is not altered in any other manner except for the addition of deposit control additives." Under 40 CFR 80.2(mm), an oxygenate blender is "any person who owns, leases, operates, controls, or supervises an oxygenate blending facility, or who owns or controls the blendstock or gasoline used or the gasoline produced at an oxygenate blending facility."

Oxygenate blenders are regulated under the anti-dumping provisions, *inter alia*, to the extent the oxygenate they blend is used in the compliance calculations of the refiner or importer who produces or imports the base gasoline used by the oxygenate blender. In this situation, the oxygenate blender is required, with regard to this oxygenate blending, to maintain records and to allow EPA inspections.

the volume percent oxygenate found through sampling and testing is inconsistent with the refiner's or importer's claimed oxygenate volume, the refiner or importer must resolve the inconsistency in order to include the oxygenate in its compliance calculations. EPA believes the sampling and testing should be unannounced, should occur at different times during the portion of the averaging period when oxygenate is blended, and that the overall frequency is dependent on the situation. The sampling and testing should increase in frequency as the oxygenate volume increases, with oxygenate blenders who are less sophisticated, or where the refiner has any reason to question the oxygenate blending operation.

Inspections by refiners and importers should be calculated to determine if the oxygenate blender is complying with the procedures included in the contract with the oxygenate blender, such as quality assurance by the blender.

EPA believes that audits must occur at least annually, and more frequently if there is any reason for the refiner or importer to question the oxygenate blending operation. EPA further believes that audits must include, at a minimum, review of records that reflect the types and volumes of oxygenate purchased and used by the downstream blender to ensure they are consistent with the refiner's or importer's claims. In a case where the oxygenate blender is using base gasoline that is produced or imported by more than one refiner or importer, the audit must distinguish the oxygenate blended with the different refiner's or importer's base gasoline. In a case where the base gasoline is fungibly mixed with gasolines from other refiners or importers prior to its receipt by the downstream blender, the audit must account for the portion of the fungible mixture that is the gasoline produced by the refiner or imported by the importer.

As a result of the complexities inherent in tracking gasoline through the fungible distribution system, EPA believes in most cases it will be impracticable for refiners or importers to effectively monitor downstream oxygenate blending with gasoline that is shipped fungibly, and as a result the refiner or importer normally would be precluded from including the oxygenate in compliance calculations.

In any case where the downstream oxygenate use claims by a refiner or importer are not supported by the inspections, sampling and testing, or audits, or where EPA is able to establish that the oxygenate use claims by the refiner or importer are incorrect, the refiner or importer would not be allowed to include the oxygenate in compliance calculations. If the error is discovered subsequent to the conclusion of an averaging period, moreover, the refiner or importer would be required to recalculate its compliance calculations for the averaging period *ab initio* without including the oxygenate, even if this recalculation results in the refiner or importer being out of compliance with the anti-dumping standards.

C. Inclusion of Sub-Octane Blendstock in Compliance Calculations

EPA has included conventional gasoline and gasoline blendstock[86] that is intended for downstream oxygenate blending in the set of products that must be included in the compliance calculations of refiners and importers.

Most base gasoline that is used in downstream oxygenate blending operations meets the definition of gasoline and as a result must be included in refiner/importer compliance calculations without regard to the provisions related to blendstock.[87] Base gasoline meets the gasoline definition where the gasoline has the properties of gasoline that also is sold for use without oxygenate blending. For example, one common practice is to blend 10 vol% ethanol with 87 octane gasoline to produce 89.6 octane gasoline, and 87 octane gasoline is commonly sold for use without oxygenate blending. 87 octane base gasoline therefore meets the definition of gasoline.

Most "sub-octane" blendstock specifically designed for oxygenate blending also meets the definition of gasoline, because gasoline having similar properties is sold in certain regions of the country and at certain times of the year.[88] For example, 85 octane blendstock—a "sub-octane" blendstock—is sometimes produced with the intention that with the addition of 10 vol% ethanol this blendstock will become 87 octane gasoline. However, because 85 octane gasoline is sold in the mountain states in the winter, 85 octane blendstock meets the definition of "gasoline" and is not a "blendstock" under the definition of that term even when it is blended with ethanol.

Potentially there are "sub-octane" blendstocks that become gasoline solely through the addition of oxygenate and that have octanes that are lower than the octane of any gasoline sold anywhere in the United States. Such a product would not meet the definition of gasoline, but would be a blendstock.

EPA nevertheless believes that the refiner or importer who produces or imports "sub-octane" base gasoline product, rather than the oxygenate blender, should include the product in its compliance calculations for several reasons. First, the emissions performance of such products is determined primarily through its basic properties and not by the addition of oxygenate. Second, to the extent that a refiner or importer produced or imported "sub-octane" base gasoline in 1990, thus contributing to the quality of the gasoline pool in 1990, such product should be part of that refiner's or importer's conventional gasoline pool in 1995. Third, the refiner or importer of such product is likely to be more sophisticated than oxygenate blenders in defining the quality of conventional gasoline necessary to meet the requirements of the anti-dumping program, and in meeting the range of anti-dumping requirements that apply to refiners. Oxygenate blenders, who often are truck splash blender-distributors, are not required to meet anti-dumping standards (for reasons discussed above), but placing the responsibility of accounting for "sub-octane" base gasoline on oxygenate blenders would result in these parties becoming "refiners" who are subject to the full scope of anti-dumping requirements.

Finally, if refiners and importers who produce or import "sub-octane" blendstock could avoid including this product in their compliance calculations, the anti-dumping enforcement requirements would have to be expanded to include complex (and expensive) product tracking and accounting mechanisms designed to ensure product of this type ultimately is accounted for, and is included in the compliance calculations of only a single party. EPA believes, therefore, that it is appropriate for the refiners and importers of "sub-octane" blendstocks to include such products in their compliance calculations under the anti-dumping program.

This requirement for refiners and importers to include sub-octane "blendstock" in compliance calculations is consistent with, but less far-reaching than, the proposal contained in the 1992 SNPRM that refiners and importers would be

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[86] 40 CFR 80.2(s) defines gasoline blending stock or component as "any liquid compound which is blended with other liquid compounds or with lead additives to produce gasoline."

[87] 40 CFR 80.2(c) defines gasoline as "any fuel sold in any State for use in motor vehicles and motor vehicle engines, and commonly or commercially known or sold as gasoline." (footnote omitted).

[88] For purposes of this discussion, "sub-octane" blendstock is blendstock that has an octane below 87.

required to account for all blendstock produced or imported.

D. Compliance Calculations for Blendstock That Is Blended With Gasoline

In the SNPRM 93, EPA proposed that parties who produce gasoline solely by combining different blendstocks could determine compliance on the basis of the properties and volumes of the blendstocks without performing a full analysis of the final blends. This compliance determination approach also was intended to apply to parties who add blendstocks to finished gasoline which has been included in another party's compliance calculations. Under this proposal, refiners and importers would insert the properties and values of the blendstocks into the equations for the complex and simple model standards. EPA now believes this compliance calculation approach is appropriate only for simple model standards, but not for complex model standards because blendstocks have parameters that are outside the range of the complex model.

This approach is included in the final rule for refiners and importers subject to the simple model because a blender-refiner can calculate the volume-weighted averages of sulfur, T–90, olefins, and exhaust benzene using blendstock analyses only.

For example, consider a blender-refiner who has the anti-dumping statutory baseline, which for olefins is 10.6 vol%. The simple model anti-dumping standard for olefins is no greater than 125% times 10.8, or 13.50 vol%. In this example the blender-refiner used two blendstocks during the averaging period, 10,000 gallons of light FCC naphtha which the blender-refiner sampled and tested and determined to contain 39.8 vol% olefins. The blender-refiner also used 25,000 gallons of reformate that through the blender-refiner's sampling and testing was determined to contain 1.0 vol% olefins. The blender-refiner in this example determined the annual average olefin content of its blendstock by calculating the volume-weighted average olefin content of these two blendstocks, or (10,000 * 39.8) plus (25,000 * 1.0) divided by 35,000, or 11.8 vol% olefins. Because 11.8 vol% is less than the 13.25 vol% olefin standard, the blender-refiner in this example would meet the anti-dumping olefin standard. Annual averages for the blender-refiner for sulfur, T–90, and exhaust benzene under the simple model would be calculated in a similar manner.

EPA believes that compliance with complex model standards cannot be determined using the volume-weighted properties of blendstock as described above, because such an approach would not provide meaningful results for exhaust benzene, or toxics or NO_X emissions performance. EPA has, however, included a method in the final rule for calculating compliance under the complex model in the case of blendstock that is added to gasoline whereby compliance is determined on the basis of blendstocks blended with gasoline. This results in a calculation method that is consistent with the technical limitations inherent with the complex model.

Under this calculation method, the blender-refiner determines the fuel parameters of the blendstock or blendstocks that are to be added to a base gasoline, by testing a representative sample of each blendstock. The blender-refiner then calculates the properties of the gasoline that would result if the blendstock or blendstocks were blended, in the volume-ratio used in the blending operation, with a gasoline having parameters that are equal to anti-dumping baseline applicable to the blender-refiner, except that properties measured on a weight or ppm basis, such as sulfur, must be corrected for the specific gravities of the products blended. In most cases, the anti-dumping statutory baseline would be the applicable baseline for blender-refiners. This mathematical calculation thus models the fuel parameters of the gasoline that would result if the blendstock in question were in fact blended with gasoline having properties equal to the blender-refiner's baseline in the volume-ratio used in the blending operation. The emissions performance (exhaust benzene, or toxics or NO_X emissions performance) of the mathematically-created gasoline is determined through the appropriate complex model, as is the emissions performance of the blender-refiner's baseline gasoline. The emissions performance effect of the blendstock is calculated by subtracting the emissions performance of the blender-refiner's baseline gasoline from the emissions performance of the mathematically-calculated gasoline. The anti-dumping standard is met if the volume-weighted emissions performance for all blendstock used in blends during the averaging period is equal to or less than zero.

For example, consider a blender-refiner who has the anti-dumping statutory baseline, and who is subject to the complex model standards (toxics and NO_X emissions performance). This blender-refiner uses two blendstocks during a certain portion of the averaging period, a light FCC naphtha and a reformate, and these blendstocks are blended at the rate of 10 vol% FCC naphtha, 25 vol% reformate, and 65 vol% base gasoline. A partial list of the properties of these blendstocks, as determined by the blender-refiner through sampling and testing, are as follows:

	FCC naphtha	Reformate	Anti-dumping statutory gasoline
Aromatics (vol%)	13.5	31.1	28.6
Olefins (vol%)	39.8	1.0	10.8
Sulfur (ppm)	289	10	338
Specific gravity	0.753	0.801	0.742

The blender-refiner determines the properties of the blends that would result if these blendstocks were blended at these rates with gasoline having properties equal to the anti-dumping statutory baseline. In the case of aromatics, the calculation would be the following:

aromatics (vol%)=(13.5×0.10)+31.1×0.25)+(28.6×0.65)=27.72

As stated earlier, fuel properties measured on a weight percent or ppm basis would have to be adjusted for specific gravity as follows:

$$\text{sulfur (ppm)} = \frac{(289\times.10\times.753)+(10\times.25\times.801)+(338\times.65\times.742)}{(.10\times.753)+(.25\times.801)+(.65\times.742)} = 246.6$$

All other parameters required for the complex model would be calculated in a similar manner to create a list of calculated parameters except for the determination of RVP for ethanol blends. Because of the high RVP of ethanol and its non-linear blending characteristics, gasoline blends with at least 1.50% ethanol by volume should be entered into the appropriate complex model with an assumed RVP 1.0 psi greater than that of the base gasoline and other blendstocks. Below 1.50% ethanol concentration, the RVP of the base gasoline and blendstock should be unchanged for calculation purposes in the complex model. These parameters are then applied to the complex model to generate the values of the exhaust benzene, toxics and NO_X emissions performance for the hypothetical calculated blend. In this example, the complex model yields a NO_X emissions performance for this gasoline of 640 mg/mile.

The properties of the anti-dumping statutory gasoline are then applied to the complex model to determine that this gasoline has a NO_X emissions performance of 660 mg/mile. The blender-refiner in this example then subtracts the NO_X emissions performance of anti-dumping statutory gasoline from the NO_X emissions performance of the hypothetical calculated blend, to yield the NO_X emissions performance effect of the blendstocks used of −20 mg/mile (640 − 660 = − 20 mg/mile).

The blender-refiner would then repeat this process for all blends produced during the averaging period where blendstock was added to base gasoline. These per-batch NO_X emissions performance effects are then combined on a volume-weighted basis, and the blender-refiner would have met the NO_X anti-dumping standard if this net value is equal to or less than zero. A similar analysis was performed for toxics emissions performance.

X. Provisions for Opt-in by Other Ozone Non-Attainment Areas

Section 211(k)(6) of the Act allows certain areas to opt into the reformulated gasoline (RFG) program. Thus, such areas may choose to participate in the RFG program, unlike the nine areas with the highest ozone design values which are required to participate.

The following is a list of all areas either required to be covered by the reformulated gasoline program or which have opted into the program to date:

Connecticut—Entire State

Areas Classified as Severe Ozone Nonattainment Areas

1. Fairfield County (part)
2. Litchfield County (part)

Areas Classified as Serious Ozone Nonattainment Areas

1. Fairfield County (part)
2. Hartford County
3. Litchfield County (part)
4. Middlesex County
5. New Haven County
6. New London County
7. Tolland County
8. Windham County

Delaware

Areas Classified as Severe Ozone Nonattainment Areas

1. Kent County
2. New Castle County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Sussex County

District of Columbia

Areas Classified as Serious Ozone Nonattainment Areas

1. Washington (entire area)

Kentucky

Areas Classified as Moderate Ozone Nonattainment Areas

1. Boone County
2. Bullitt County (part)
3. Campbell County
4. Jefferson County
5. Kenton County
6. Oldham County (part)

Maine

Areas Classified as Moderate Ozone Nonattainment Areas

1. Androscoggin County
2. Cumberland County
3. Kennebec County
4. Knox County
5. Lincoln County
6. Sagadahoc County
7. York County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Hancock County
2. Waldo County

Maryland

Areas Classified as Severe Ozone Nonattainment Areas

1. Anne Arundel County
2. Baltimore County
3. Carroll County
4. Cecil County
5. Harford County
6. Howard County

Areas Classified as Serious Ozone Nonattainment Areas

1. Calvert County
2. Charles County
3. Frederick County
4. Montgomery County
5. Prince Georges County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Kent County
2. Queen Annes County

Massachusetts—Entire State

Areas Classified as Serious Ozone Nonattainment Areas

1. Barnstable County
2. Berkshire County
3. Bristol County
4. Dukes County
5. Essex County
6. Franklin County
7. Hampden County
8. Hampshire County
9. Middlesex County
10. Nantucket County
11. Norfolk County
12. Plymouth County
13. Suffolk County
14. Worcester County

New Hampshire

Areas Classified as Serious Ozone Nonattainment Areas

1. Hillsborough County (part) [89]
2. Rockingham County (part) [90]
3. Strafford County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Hillsborough County (part)
2. Merrimack County
3. Rockingham County (part)

New Jersey

Areas Classified as Severe Ozone Nonattainment Areas

1. Bergen County

[89] Part of Hillsborough County is classified as serious, the other part as marginal.

[90] Part of Rockingham County is classified as serious, the other part as marginal.

2. Burlington County
3. Camden County
4. Cumberland County
5. Essex County
6. Gloucester County
7. Hudson County
8. Hunterdon County
9. Mercer County
10. Middlesex County
11. Monmouth County
12. Morris County
13. Ocean County
14. Passaic County
15. Salem County
16. Somerset County
17. Sussex County
18. Union County

Areas Classified as Moderate Ozone Nonattainment Areas

1. Atlantic County
2. Cape May County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Warren County

New York

Areas Classified as Severe Nonattainment Areas

1. Bronx County[91]
2. Kings County
3. Nassau County
4. New York County
5. Queens County
6. Richmond County
7. Rockland County
8. Suffolk County
9. Westchester County

Areas Classified as Marginal Nonattainment Areas

1. Albany County
2. Dutchess County
3. Erie County
4. Essex County[92]
5. Greene County
6. Jefferson County
7. Montgomery County
8. Niagara County
9. Rensselaer County
10. Saratoga County
11. Schenectady County

Pennsylvania

Areas Classified as Severe Ozone Nonattainment Areas

1. Bucks County[93]
2. Chester County
3. Delaware County
4. Montgomery County
5. Philadelphia County

Areas Classified as Moderate Ozone Nonattainment Areas

1. Allegheny County
2. Armstrong County
3. Beaver County
4. Berks County
5. Butler County
6. Fayette County
7. Washington County
8. Westmoreland County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Adams County
2. Blair County
3. Cambria County
4. Carbon County
5. Columbia County
6. Cumberland County
7. Dauphin County
8. Erie County
9. Lackawanna County
10. Lancaster County
11. Lebanon County
12. Lehigh County
13. Luzerne County
14. Mercer County
15. Monroe County
16. Northampton County
17. Perry County
18. Somerset County
19. Wyoming County
20. York County

Rhode Island—Entire State

Areas Classified as Serious Ozone Nonattainment Areas

1. Bristol County
2. Kent County
3. Newport County
4. Providence County
5. Washington County

Texas—Houston/Galveston area

Area Classified As Moderate Ozone Nonattainment Area

1. Collin County
2. Dallas County
3. Denton County
4. Tarrant County

Virginia

Areas Classified as Serious Ozone Nonattainment Areas

1. Alexandria
2. Arlington County
3. Fairfax
4. Fairfax County
5. Falls Church
6. Loudoun County
7. Manassas
8. Manassas Park
9. Prince William County
10. Stafford County

Areas Classified as Moderate Ozone Nonattainment Areas

1. Charles City County
2. Chesterfield County
3. Colonial Heights
4. Hanover County
5. Henrico County
6. Hopewell
7. Richmond County

Areas Classified as Marginal Ozone Nonattainment Areas

1. Chesapeake
2. Hampton
3. James City County
4. Newport News
5. Norfolk
6. Poquoson
7. Portsmouth
8. Smyth County (part)[94]
9. Suffolk
10. Virginia Beach
11. Williamsburg
12. York County

Vermont and portions of other areas in Pennsylvania and New Hampshire have formally requested to opt-in to the reformulated gasoline program, although the designated areas in these states are categorized as unclassified/attainment. Because of statutory limitations, attainment areas will not be allowed to opt-in to the program, with a limited exception given to some areas in established ozone transport regions as authorized by section 184 of the Act. The reader is referred to the RIA for further discussion of the statutory limitations.

Other ozone nonattainment areas that are not listed herein may also opt-in to the reformulated gasoline program as permitted by section 211(k)(6), under constraints such as sufficient lead-time domestic fuel availability.

Several key issues were brought to EPA's attention in the form of comments, and EPA's response is summarized below. More detailed discussion of these opt-in issues can be found in Section IX of the Final Regulatory Impact Analysis (RIA).

Several commenter inquiries pertained to opting out of the reformulated gasoline program. Once an area has opted into the reformulated gasoline program, the issue arises whether it may, at a later date, decide to opt out of the program. While EPA is currently considering opt-out provisions, section 211(k) does not give EPA the authority to develop an opt-out procedure. Thus, EPA is not including any opt-out provisions in this rulemaking, but may pursue a separate action in the future that would allow states to opt-out of the RFG program, provided sufficient notice is given.

In its April 1993 NPRM, EPA requested comment on whether to

[91] The state requested time to study the boundaries and classification under Section 107(d)(4)(A)(iv). The boundaries and classification of Orange and Putnam Counties will be determined based upon evaluation of that study by EPA.

[92] This area is a rural transport area.

[93] These counties are already defined as "covered areas" and are subjected to the federal reformulated fuel program under Section 211(k)(10)(D).

[94] This is a rural transport area.

permit areas to opt-in to only Phase I (1995–99) of the RFG program, and not require them to receive Phase II RFG starting in 2000. Several commenters supported allowing states to opt-in to Phase I only, but cited a number of concerns regarding the logistics of producing and distributing Phase I and Phase II reformulated gasolines concurrently. Because of these potential fuel proliferation problems (i.e., many types of fuels available or required in the marketplace at one time), as well as enforcement problems and weak statutory authority (which is discussed further in the RIA), EPA will not allow nonattainment areas to opt-in to only Phase I. Opt-in areas must be willing to commit to the change to Phase II RFG in the year 2000. As discussed above, EPA may undertake a separate action which would give opted-in areas the opportunity to opt-out of the RFG program. In this case if a state desired to maintain the Phase I RFG standards beyond the year 1999, the state could promulgate its own regulations requiring this. Such a program would have to be enforced by the state, however, and would also have to be approved by EPA as part of the State Implementation Plan review process.

As discussed briefly above, some of the comments received by EPA included a request that attainment areas be permitted to opt-in to the RFG program. The Act does not allow participation by attainment areas into the reformulated gasoline program.

EPA also received suggestions that it modify the opt-in application procedure to allow more lead time for refiners. EPA feels that its existing application procedure for opt-in and its lead time provisions are adequate, and do not require revision.

Finally, one commenter suggested that opt-in should be allowed only after a nonattainment area has adopted Stage II controls and enhanced inspection and maintenance. EPA favors giving eligible areas freedom to opt-in to the RFG provisions, and will not require that areas first implement Stage II controls and enhanced inspection and maintenance.

The NO_X standard for Phase II reformulated gasoline (see Section VI above) will be required in all current and future opt-in areas. As discussed in the Section VI of the RIA, NO_X control is believed to be necessary to ensure that all opt-in areas realize a reduction in ozone levels. Since future opt-in areas are likely to be similar to some current reformulated gasoline areas (including current opt-in) in terms of geographical location, meteorological conditions, and other factors affecting ozone formation, it is reasonable to assume that future opt-in areas will similarly benefit from NO_X control. Furthermore, as discussed in Section VI of the RIA, applying the NO_X standard to the same areas as the reformulated gasoline standard is considered to be the most appropriate and cost effective manner in which to achieve ozone benefits through fuel reformulation. Since refiners will already be producing reformulated gasoline controlling both VOC and NO_X, the addition of new areas to the reformulated gasoline program will only require an increase in the volume of RFG produced and will not pose any leadtime problems.

XI. Federal Preemption

Whenever the federal government regulates in an area, the issue of preemption of State action in the same area is raised. The regulations proposed here will affect virtually all of the gasoline sold in the United States. As opposed to commodities that are produced and sold in the same area of the country, gasoline produced in one area is often distributed to other areas. The national scope of gasoline production and distribution suggests that federal rules should preempt State action to avoid an inefficient patchwork of potentially conflicting regulations. Indeed, Congress provided in the 1977 Amendments to the Clean Air Act that federal fuels regulations preempt non-identical State controls except under certain specified circumstances (see, section 211(c)(4) of the Clean Air Act). EPA believes that the same approach to federal preemption is desirable for the reformulated gasoline and anti-dumping programs. EPA, therefore, is issuing today's final rule under the authority of sections 211 (k) and (c), and promulgate under section 211(c)(4) that dissimilar State controls be preempted unless either of the exceptions to federal preemption specified by section 211(c)(4) applies. Those exceptions are sections 211(c)(4) (B) and (C).

As raised in some of comments received by the Agency, the Regulatory Negotiation agreement was not intended to modify the provisions of section 211(c)(4)(B). Under this provision, once the State of California has received a waiver under section 209(b) of the Clean Air Act, it has the ability to regulate fuels and fuel additives without the need for a waiver under section 211 of the Clean Air Act. In accordance with the intent of Congress in enacting sections 209(b) and 211(c)(4)(B) of the Clean Air Act, California has used, and EPA understands will continue to use, these provisions to design a program to meet its unique needs.

EPA believes that the limited federal preemption promulgated here appropriately balances the utility and efficacy of uniform national rules with States' needs to address their unique pollution problems.

XII. Environmental and Economic Impacts

A. Environmental Impact

Section 211(k) of the Clean Air Act indicates that the primary purposes of reformulated gasoline are to reduce ozone-forming VOC emissions during the high ozone season and emissions of toxic air pollutants during the entire year. Reductions in VOCs are environmentally significant because of the associated reductions in ozone formation and in secondary formation of particulate matter, with the associated improvements in human health and welfare. Reductions in emissions of toxic air pollutants are environmentally important because they carry significant benefits for human health and welfare primarily by reducing the number of cancer cases each year.

1. Phase I Reformulated Gasoline

Beginning in 1995, reformulated gasoline certified during Phase I of the program must achieve a nominal emissions reduction of 15 percent for VOCs, 16.5 percent for air toxics on average, and NO_X emissions are not allowed to increase beyond levels evident in baseline gasoline. EPA expects simple model fuels to meet these Clean Air Act standards. As discussed in the section IV, high ozone season fuels certified using the complex model during Phase I of the reformulated gasoline program in VOC control region I must provide a VOC emission reduction from baseline levels of 36.6 percent when complying on average and 35.1 percent when complying on a per-gallon basis. Similarly, high ozone season fuels certified using the complex model during Phase I in VOC Control Region 2 must provide a VOC emission reduction from baseline levels of 17.1 percent when complying on average and 15.6 percent when complying on a per-gallon basis.

The Agency projects that VOC emission reductions for Phase I of reformulated gasoline will be approximately 90–140 thousand tons during the summer period for the "nine cities" and the other areas that have currently opted into the program. Assuming a one year exposure to both the baseline and controlled level of toxic emissions, the number of cancer incidences is estimated to decrease by

approximately 16 (assuming enhanced I/M in place) or 24 (assuming basic I/M in place) incidences per each year that the program is in place, in the nine cities and the opt-in areas (refer to section V of the RIA for an explanation and methodology of these numbers). These reductions will naturally increase to the extent that other areas opt into the program.

2. Phase II Reformulated Gasoline

Beginning in the year 2000, reformulated gasoline certified on average must meet a VOC emission reduction standard of 27.4 percent in VOC control region 2 and 29.0 percent in VOC control region 1, as well as a toxic emission reduction standard on average of 21.5 percent. In addition, a NO_X emission reduction standard of 6.8 percent on average is required for Phase II of reformulated gasoline. The Agency projects that under Phase II, there will be 3–4 fewer incidences of cancer per year, summertime VOC emissions will be reduced by approximately 42,000 tons, and summertime NO_X emissions will be reduced by approximately 22,000 tons in the nine cities and other areas currently opted into the RFG program (incremental to Phase I).

B. Economic Impact

1. Phase I Reformulated Gasoline

Due to the required addition of oxygenates to gasoline and to refinery processing changes that will be needed to reduce fuel benzene and RVP levels and to meet the VOC, NO_X and toxic emission standards, the cost of producing reformulated gasoline certified under Phase I, is expected to increase by approximately 3–5 cents per gallon in 1995 above the cost of conventional gasoline. We project annual costs of $700 to $940 million for both those areas mandated to be part of the program and those that have chosen to opt-in. Additionally, there will be costs due to testing, enforcement and recordkeeping.

2. Phase II Reformulated Gasoline

As discussed in Section VI, The overall cost of the Phase II reformulated gasoline VOC standards and NO_X standards for Phase II RFG is approximately 1.2 cents per gallon (incremental to Phase I RFG) during the VOC control period when the more stringent VOC and NO_X standards are in effect. There should be no additional cost during the non-VOC control period, since only the toxics standard changes, and there is not expected to be a cost for year-round toxics control above that required for Phase I RFG. In addition, EPA does not expect non-production related costs, such as distribution costs, recordkeeping and reporting costs, etc., to increase significantly relative to Phase I reformulated gasoline.

The environmental and economic impacts of the reformulated gasoline program are described in more detail in the Section V and VI of the Final Regulatory Impact Analysis.

XIII. Public Participation

During the reformulated gasoline rulemaking, EPA encouraged and welcomed full public participation in arriving at its final decisions and developing its final rule. EPA met with representatives of the automobile, petroleum, and oxygenate industries as well as environmental and citizen organizations. Their concerns and ideas were considered in the development in this final rule for reformulated gasoline. Public workshops to discuss and resolve a variety of issues on several aspects of the reformulated gasoline program were sponsored by the Agency.

Additionally, EPA solicited, reviewed, and considered written comments on all aspects of its three previous proposals and Phase II correction notice. All comments received by the Agency are located in the EPA Air Docket, Dockets A–91–02 and A–92–12 (See **ADDRESSES**). As mentioned above, all significant comments were used to revise the previous proposals and/or are responded to in the Regulatory Impact Analysis contained in Docket A–91–02.

XIV. Compliance With the Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980 requires federal agencies to examine the effects of the reformulated gasoline regulation and to identify significant adverse impacts of federal regulations on a substantial number of small entities. Because the RFA does not provide concrete definitions of "small entity," "significant impact," or "substantial number," EPA has established guidelines setting the standards to be used in evaluating impacts on small businesses[95]. For purposes of the reformulated gasoline regulations, a small entity is any business which is independently owned and operated and not dominant in its field as defined by SBA regulations under section 3 of the Small Business Act.

The Agency has found that the reformulated gasoline and anti-dumping regulations may possibly have some economic impact on a substantial number of small refiners. However, these regulations may not significantly affect gasoline blenders, terminal operators, service stations and ethanol blenders under the same EPA criteria. Small business entities are not required by the Clean Air Act to manufacture reformulated gasoline. Since most small refiners are located in the mountain states or in California, which has its own (more stringent) reformulated gasoline program, the vast majority of small refiners are unaffected by the federal reformulated gasoline requirements. Furthermore, all businesses (both large and small) maintain the option to produce conventional gasoline to be sold in areas not obligated by the Act to receive reformulated gasoline or those areas which have not chosen to opt into the program.

All refiners will be affected by the anti-dumping requirements, which are less stringent than those for the reformulated gasoline portion of the program. The anti-dumping regulations affecting conventional gasoline are not expected to disproportionately impact small refiners of conventional gasoline.

In addition, all refiners have the option to use either the simple or complex model during the first years of the reformulated gasoline program. Refiners have greater flexibility under the complex model than under the simple model (which focuses primarily on volatility control) in choosing the least-cost method of compliance.

The component of the reformulated gasoline program most likely to unfavorably impact small entities is the fundamental necessity that reformulated gasoline meet more stringent emission standards and thus processing requirements. The Agency is unaware of any alternative options which might relieve the regulatory burden on small entities while simultaneously maintaining the program benefits required by the statute. Exempting small refiners from the reformulated gasoline regulations would result in the failure of meeting CAA performance standards, which is illegal. All reformulated gasoline is required to meet the same performance and compositional standards. Additionally, enforcement of a reformulated gasoline program (with exemptions or less stringent standards for some fuel producers), in-use, would be virtually impossible to enforce due to the inherent nature of the fungible

[95] U.S. Environmental Protection Agency, Memorandum to Assistant Administrators, "Compliance With the Regulatory Flexibility Act," EPA Office of Policy, Planning, and Evaluation, 1984. In addition, U.S. Environmental Protection Agency, Memorandum to Assistant Administrators, "Agency's Revised Guidelines for Implementing the Regulatory Flexibility Act," Office of Policy, Planning, and Evaluation, 1992.

gasoline distribution system in existence.

Despite the inability to exempt small businesses from the requirements of the reformulated gasoline program, EPA has made accommodations where possible. One example of the versatility embedded in the reformulated gasoline regulations, by EPA, is the flexibility available to all refiners, both small and large, to choose to have one or more individual refinery conventional gasoline compliance baselines and one or more "refiner" baselines (i.e., more than one grouping of two or more refineries to form a compliance baseline). Another example of the flexibility of the regulations is the ability to produce reformulated gasoline on a per gallon or averaging basis. Also, certain small refiners who produced JP–4 jet fuel in 1990 may be able to adjust their baselines so as to reduce the compliance burden. It is worthy to note that although EPA has received several comments which claim that the reformulated gasoline regulations will result in closing the small business entities affected by this rule, convincing evidence supporting this claim has not been submitted.

In accordance with section 604 of the Regulatory Flexibility Act, EPA has prepared a regulatory flexibility analysis which includes a comprehensive justification for the determination briefly reviewed above, as well as a summary and assessment of the issues raised by public comments on the Initial Regulatory Flexibility Analysis. The complete analysis is contained within the Regulatory Impact Analysis which has been placed in the docket for this rulemaking: EPA Air Docket A–92–12.

XV. Statutory Authority

The statutory authority for the rules finalized today is granted to EPA by sections 114, 211 (c) and (k) and 301 of the Clean Air Act, as amended, 42 U.S.C. 7414, 7545 (c) and (k), and 7601.

XVI. Administrative Designation and Regulatory Analysis

Pursuant to Executive Order 12866, (58 FR 51735 (October 4, 1993)) the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communitites;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is a "significant regulatory action" because the Administrator has determined that reformulated gasoline will cost well in excess of $100 million per year and therefore should be classified as a significant regulatory action. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record: EPA Air Docket A–92–12.

A Regulatory Impact Analysis (RIA) for the reformulated gasoline program has been prepared and placed in Public Docket No. A–92–12 to accompany this EPA notice of final rulemaking. A draft version of the Regulatory Impact Analysis was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12866. Written comments from OMB and EPA response to those comments have also been placed in the public docket for this rulemaking. EPA has made subsequent updates and revisions to the draft version pertinent to the use of the simple model. A final version of the analysis is available in the docket cited above.

XVII. Compliance With the Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An Information Collection Request document has been prepared by EPA (ICR No.1591.03) and a copy may be obtained from Sandy Farmer, Information Policy Branch; EPA, 401 M Street, SW. (Mail Code 2136); Washington, DC 20460 or by calling (202) 260–2740. These requirements are not effective until OMB approves them and a technical amendment to that effect is published in the **Federal Register.**

This collection of information has an estimated reporting burden averaging 8 hours per response and an estimated annual recordkeeping burden averaging 38 hours per respondent. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Chief, Information Policy Branch; EPA; 401 M St., SW. (Mail Code 2136); Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

XVIII. Notice Regarding Registration of Reformulated Gasolines

EPA is in the process of establishing new requirements for the registration of motor vehicle fuels and fuel additives (F/FAs) as authorized by sections 211(b) and 211(e) of the Clean Air Act (CAA).[96] A proposal was published on April 15, 1992 (57 FR 13168). Pursuant to court order, EPA is scheduled to issue the final rule on or before April 29, 1994. The new registration regulations would supplement existing requirements and would apply to all F/FAs designated for registration, including reformulated gasoline and oxygenated gasolines. This new rule would require manufacturers of designated F/FAs to conduct certain tests and submit information regarding the composition and the potential health and welfare effects of the emissions produced by such F/FAs. Consistent with statutory requirements, for products registered prior to the promulgation of the F/FA final rule the proposal would allow a period of three years for the submission of certain data required by the rule. Under this proposal, manufacturers of designated F/FAs not registered prior to the promulgation of the F/FA final rule would be required to submit the requisite information prior to registration. This would mean that products not registered at the time of promulgation of the final F/FA testing rule would not be allowed to be registered and sold until EPA receives the requisite health effects information. In view of this proposed provision, EPA is advising manufacturers of reformulated gasoline and oxygenated gasolines to promptly register their products (or update their current gasoline registrations) so they can enter the marketplace and make use of the three-year time window allowed by the statute to conduct the required tests.

[96] Under section 211(a) registration of designated fuels and fuel additives is required as a precondition to introduction into the marketplace.

The purpose of this section is to provide some guidance to fuel producers on the registration process.

To make the registration process more flexible and convenient, current registration procedures allow a fuel producer to include in the original registration a list of additives that might be used in the marketed fuel, along with the applicable range of concentration-in-use for each alternative. Manufacturers are also allowed to revise existing fuel registrations to accommodate expected changes in their formulations. These provisions allow fuel producers to respond quickly to fluctuations in price, availability, and other market or technical factors when they formulate their fuel products.

Consistent with this current practice, EPA will permit fuel producers to register their oxygenated gasoline formulations (including reformulated gasoline) by simply revising their existing gasoline registrations to include the pertinent oxygenating compound(s). Fuel producers who are uncertain about their future fuel formulations could potentially list an unlimited number of oxygenates which they might, under some conceivable circumstances, blend into gasoline. However, EPA would generally advise against the strategy of including every possible alternative oxygenate. The fact that, for the sake of convenience, registrations are permitted to be modified to cover oxygenated gasolines does not mean that all potential formulations which fit under this broad compositional umbrella will necessarily be considered equivalent to a single fuel product. In fact, the F/FA final rule is expected to consider each gasoline/oxygenate blend as a different formulation. Thus, fuel producers would be responsible for the testing of each gasoline/oxygenate blend covered by the respective fuel registration. Furthermore, oxygenated compounds that are listed but not tested within the allotted time period (i.e., three years) could not be used by the manufacturer. Thus, in determining which oxygenate compounds to include in the registration, each producer should carefully consider the tradeoff between the additional flexibility which a comprehensive list of potential oxygenates might provide and the additional testing responsibility which might result.

For more information about registration procedures, please contact the registration office at (202) 233–9755. For information on the testing requirements of the F/FA rule contact Ines Figueroa at (313) 668–4575.

List of Subjects in 40 CFR Part 80

Environmental protection, Fuel additives, Gasoline, Incorporation by reference, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Dated: December 15, 1993.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, part 80 of title 40 of the Code of Federal Regulations is amended as follows:

PART 80—REGULATION OF FUELS AND FUEL ADDITIVES

1. The authority citation for part 80 continues to read as follows:

Authority: Sections 114, 211 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7414, 7545, and 7601(a)).

2. Section 80.2 is amended by adding paragraphs (ee), (ff), (gg), (hh), (ii), (jj), (kk), (ll), (mm), and (nn) to read as follows:

§ 80.2 Definitions.

* * * * *

(ee) *Reformulated gasoline* means any gasoline whose formulation has been certified under § 80.40, which meets each of the standards and requirements prescribed under § 80.41, and which contains less than the maximum concentration of the marker specified in § 80.82 that is allowed for reformulated gasoline under § 80.82.

(ff) *Conventional gasoline* means any gasoline which has not been certified under § 80.40.

(gg) *Batch of reformulated gasoline* means a quantity of reformulated gasoline which is homogeneous with regard to those properties which are specified for reformulated gasoline certification.

(hh) *Covered area* means each of the geographic areas specified in § 80.70 in which only reformulated gasoline may be sold or dispensed to ultimate consumers.

(ii) *Reformulated gasoline credit* means the unit of measure for the paper transfer of oxygen or benzene content resulting from reformulated gasoline which contains more than 2.1 weight percent of oxygen or less than 0.95 volume percent benzene.

(jj) *Oxygenate* means any substance which, when added to gasoline, increases the oxygen content of that gasoline. Lawful use of any of the substances or any combination of these substances requires that they be "substantially similar" under section 211(f)(1) of the Clean Air Act, or be permitted under a waiver granted by the Administrator under the authority of section 211(f)(4) of the Clean Air Act.

(kk) *Reformulated gasoline blendstock for oxygenate blending, or RBOB* means a petroleum product which, when blended with a specified type and percentage of oxygenate, meets the definition of reformulated gasoline, and to which the specified type and percentage of oxygenate is added other than by the refiner or importer of the RBOB at the refinery or import facility where the RBOB is produced or imported.

(ll) *Oxygenate blending facility* means any facility (including a truck) at which oxygenate is added to gasoline or blendstock, and at which the quality or quantity of gasoline is not altered in any other manner except for the addition of deposit control additives.

(mm) *Oxygenate blender* means any person who owns, leases, operates, controls, or supervises an oxygenate blending facility, or who owns or controls the blendstock or gasoline used or the gasoline produced at an oxygenate blending facility.

(nn) *Oxygenated fuels program reformulated gasoline, or OPRG* means reformulated gasoline which is intended for use in an oxygenated fuels program control area, as defined at paragraph (pp) of this section, during an oxygenated fuels program control period, as defined at paragraph (qq) of this section.

* * * * *

3. New subpart D, consisting of §§ 80.40 through 80.89, subpart E, consisting of §§ 80.90 through 80.124, and subpart F, consisting of §§ 80.125 through 80.135, are added to read as follows:

Subpart D—Reformulated Gasoline

Sec.

80.40 Fuel certification procedures.
80.41 Standards and requirements for compliance.
80.42 Simple emissions model.
80.43–80.44 [Reserved]
80.45 Complex emissions model.
80.46 Measurement of reformulated gasoline fuel parameters.
80.47 [Reserved]
80.48 Augmentation of the complex emission model by vehicle testing.
80.49 Fuels to be used in augmenting the complex emission model through vehicle testing.
80.50 General test procedure requirements for augmentation of the emission models.
80.51 Vehicle test procedures.
80.52 Vehicle preconditioning.
80.53–80.54 [Reserved]
80.55 Measurement methods for benzene and 1,3-butadiene
80.56 Measurement methods for formaldehyde and acetaldehyde.
80.57–80.58 [Reserved]

Sec.
80.59 General test fleet requirements for vehicle testing.
80.60 Test fleet requirements for exhaust emission testing.
80.61 [Reserved]
80.62 Vehicle test procedures to place vehicles in emitter group sub-fleets.
80.63–80.64 [Reserved]
80.65 General requirements for refiners, importers, and oxygenate blenders.
80.66 Calculation of reformulated gasoline properties.
80.67 Compliance on average.
80.68 Compliance surveys.
80.69 Requirements for downstream oxygenate blending.
80.70 Covered areas.
80.71 Descriptions of VOC-control regions.
80.72 [Reserved]
80.73 Inability to produce conforming gasoline in extraordinary circumstances.
80.74 Record keeping requirements.
80.75 Reporting requirements.
80.76 Registration of refiners, importers or oxygenate blender.
80.77 Product transfer documentation.
80.78 Controls and prohibitions on reformulated gasoline.
80.79 Liability for violations of the prohibited activities.
80.80 Penalties.
80.81 Enforcement exemptions for California gasoline.
80.82 Conventional gasoline marker. [Reserved]
80.83–80.89 [Reserved]

Subpart E—Anti-Dumping

80.90 Conventional gasoline baseline emissions determination.
80.91 Individual baseline determination.
80.92 Baseline auditor requirements.
80.93 Individual baseline submission and approval.
80.94–80.100 [Reserved]
80.101 Standards applicable to refiners and importers.
80.102 Controls applicable to blendstocks.
80.103 Registration of refiners and importers.
80.104 Record keeping requirements.
80.105 Reporting requirements.
80.106 Product transfer documents.
80.107–80.124 [Reserved]

Subpart F—Attest Engagements

80.125 Attest engagements.
80.126 Definitions.
80.127 Sample size guidelines.
80.128 Agreed upon procedures for refiners and importers.
80.129 Agreed upon procedures for downstream oxygenate blenders.
80.130 Agreed upon procedures reports.
80.131–80.135 [Reserved]

Subpart D—Reformulated Gasoline

§ 80.40 Fuel certification procedures.

(a) Gasoline that complies with one of the standards specified in § 80.41 (a) through (f) that is relevant for the gasoline, and that meets all other relevant requirements prescribed under § 80.41, shall be deemed certified.

(b) Any refiner or importer may, with regard to a specific fuel formulation, request from the Administrator a certification that the formulation meets one of the standards specified in § 80.41 (a) through (f).

§ 80.41 Standards and requirements for compliance.

(a) *Simple model per-gallon standards.* The "simple model" standards for compliance when achieved on a per-gallon basis are as follows:

SIMPLE MODEL PER-GALLON STANDARDS

Reid vapor pressure (in pounds per square inch):	
Gasoline designated for VOC-Control Region 1	≤7.2
Gasoline designated for VOC-Control Region 2	≤8.1
Oxygen content (percent, by weight)	≥2.0
Toxic air pollutants emissions reduction (percent)	≥15.0
Benzene (percent, by volume)	≤1.00

(b) *Simple model averaged standards.* The "simple model" standards when achieved on average are as follows:

SIMPLE MODEL AVERAGED STANDARDS

Reid vapor pressure (in pounds per square inch):	
Gasoline designated for VOC-Control Region 1:	
Standard	≤7.1
Per-Gallon Maximum	≤7.4
Gasoline designated for VOC-Control Region 2:	
Standard	≤8.0
Per-Gallon Maximum	≤8.3
Oxygen content (percent, by weight):	
Standard	≥2.1
Per-Gallon Minimum	≥1.5
Toxic air pollutants emissions reduction (percent)	≥16.5
Benzene (percent, by volume):	
Standard	≤0.95
Per-Gallon Maximum	≤1.30

(c) *Phase I complex model per gallon standards.* The Phase I "complex model" standards for compliance when achieved on a per-gallon basis are as follows:

PHASE I—COMPLEX MODEL PER-GALLON STANDARDS

VOC emissions performance reduction (percent):	
Gasoline designated for VOC-Control Region 1	≥35.1
Gasoline designated for VOC-Control Region 2	≥15.6
Toxic air pollutants emissions performance reduction (percent)	≥15.0
NO_x emissions performance reduction (percent)	≥0.0
Oxygen content (percent, by weight)	≥2.0
Benzene (percent, by volume)	≤1.00

(d) *Phase I complex model averaged standards.* The Phase I "complex model" standards for compliance when achieved on average are as follows:

PHASE I—COMPLEX MODEL AVERAGED STANDARDS

VOC emissions performance reduction (percent):	
Gasoline designated for VOC-Control Region 1:	
Standard	≥36.6
Per-Gallon Minimum	≤32.6
Gasoline designated for VOC-Control Region 2:	
Standard	≥17.1
Per-Gallon Minimum	≥13.1
Toxics air pollutants emissions performance reduction (percent)	≥16.5
NO_x emissions performance reduction (percent):	
Standard	≥1.5
Per-Gallon Minimum	≤−2.5
Oxygen content (percent, by weight):	
Standard	≥2.1
Per-Gallon Minimum	≥1.5
Benzene (percent, by volume):	
Standard	≤0.95
Per-Gallon Maximum	≤1.30

(e) *Phase II complex model per-gallon standards.* The Phase II "complex model" standards for compliance when achieved on a per-gallon basis are as follows:

PHASE II—COMPLEX MODEL PER-GALLON STANDARDS

VOC emissions performance reduction (percent):	
Gasoline designated for VOC-Control Region 1	≥27.5
Gasoline designated for VOC-Control Region 2	≥25.9
Toxic air pollutants emissions performance reduction (percent)	≥20.0
NO_x emissions performance reduction (percent):	
Gasoline designated as VOC-controlled	≥5.5
Gasoline not designated as VOC-controlled	≥0.0
Oxygen content (percent, by weight)	≥2.0
Benzene (percent, by volume)	≤1.00

(f) *Phase II complex model averaged standards.* The Phase II "complex model" standards for compliance when achieved on average are as follows:

PHASE II—COMPLEX MODEL AVERAGED STANDARDS

VOC emissions performance reduction (percent):	
Gasoline designated for VOC-Control Region 1:	
Standard	≥29.0
Per-Gallon Minimum	≥25.0
Gasoline designated for VOC-Control Region 2:	
Standard	≥27.4
Per-Gallon Minimum	≥23.4
Toxics air pollutants emissions performance reduction (percent)	≥21.5
NO_x emissions performance reduction (percent):	
Gasoline designated as VOC-controlled:	
Standard	≥6.8
Per-Gallon Minimum	≥3.0
Gasoline not designated as VOC-controlled:	
Standard	≥1.5
Per-Gallon Minimum	≥−2.5
Oxygen content (percent, by weight):	
Standard	≥2.1
Per-Gallon Minimum	≥1.5
Benzene (percent, by volume):	
Standard	≤0.95
Per-Gallon Maximum	≤1.30

(g) *Oxygen maximum standard.* The per-gallon standards for maximum oxygen content, which apply to reformulated gasoline subject to the simple model per-gallon or average standards, are as follows.

(1) For reformulated gasoline designated as VOC-controlled:

(i) The standard shall be 2.7% by weight; except that

(ii)(A) The standard shall be 3.5% by weight within the boundaries of any state if the state notifies the Administrator it wishes this different standard to apply; provided that

(B) There have been no occasions within the three preceding years when the ozone ambient air quality standard was exceeded within any covered area within the state.

(2) For reformulated gasoline not designated as VOC-controlled:

(i) The standard shall be 3.5% by weight; except that

(ii) In the case of any state that has notified the Administrator that the use of an oxygenate will interfere with attainment or maintenance of an ambient air quality standard or will contribute to an air quality problem, the standard shall be 2.7% by weight within the boundaries of that state.

(h) *Additional standard requirements.* In addition to the standards specified in paragraphs (a) through (g) of this section, the following standards apply for all reformulated gasoline:

(1) The standard for heavy metals, including lead or manganese, on a per-gallon basis, is that reformulated gasoline may contain no heavy metals. The Administrator may waive this prohibition for a heavy metal (other than lead) if the Administrator determines that addition of the heavy metal to the gasoline will not increase, on an aggregate mass or cancer-risk basis, toxic air pollutant emissions from motor vehicles.

(2) In the case of any refinery or importer subject to the simple model standards:

(i) The annual average levels for sulfur, T–90, and olefins cannot exceed that refinery's or importer's 1990 baseline levels for each of these parameters; and

(ii) The 1990 baseline levels and the annual averages for these parameters shall be established using the methodology set forth in §§ 80.91 through 80.92; and

(iii) In the case of a refiner that operates more than one refinery, the standards specified under this paragraph (h)(2) shall be met using the refinery grouping selected by the refiner under § 80.101(g).

(i) *Use of simple and complex models.* (1) During each calendar year 1995 through 1997, any refinery or importer shall be subject to either the simple model standards specified in paragraphs (a) and (b) of this section, or the Phase I complex model standards specified in paragraphs (c) and (d) of this section, at the option of the refiner or importer, provided that:

(i) No refinery or importer may be subject to a combination of simple and complex standards during any calendar year; and

(ii) Any refiner or importer that elects to achieve compliance with the anti-dumping requirements using the:

(A) Simple model shall meet the requirements of this Subpart D using the simple model standards; or

(B) Complex model or optional complex model shall meet the requirements of this Subpart D using the complex model standards.

(2) During the period January 1, 1998 through December 31, 1999, any refiner or importer shall be subject to the Phase I complex model standards specified in paragraphs (c) and (d) of this section.

(3) Beginning on January 1, 2000, any refiner or importer shall be subject to the Phase II complex model standards specified in paragraphs (e) and (f) of this section.

(j) *Complex model early use.* Before January 1, 1998, the VOC, toxics, and NO_x emissions performance standards for any refinery or importer subject to the Phase I complex model standards shall be determined by evaluating all of the following parameter levels in the Phase I complex model (specified in § 80.45) at one time:

(1) The simple model values for benzene, RVP, and oxygen specified in § 80.41 (a) or (b), as applicable;

(2) The aromatics value which, together with the values for benzene, RVP, and oxygen determined under paragraph (j)(1)(i) of this section, meets the simple model toxics requirement specified in § 80.41 (a) or (b), as applicable;

(3) The refinery's or importer's individual baseline values for sulfur, E–300, and olefins, as established under § 80.91; and

(4) The appropriate seasonal value of E–200 specified in § 80.45(b)(2).

(k) *Effect of VOC survey failure.* (1) On each occasion during 1995 or 1996 that a covered area fails a simple model VOC emissions reduction survey conducted pursuant to § 80.68, the RVP requirements for that covered area beginning in the year following the failure shall be adjusted to be more stringent as follows:

(i) The required average RVP level shall be decreased by an additional 0.1 psi; and

(ii) The maximum RVP level for each gallon of averaged gasoline shall be decreased by an additional 0.1 psi.

(2) On each occasion that a covered area fails a complex model VOC emissions reduction survey conducted pursuant to § 80.68, or fails a simple model VOC emissions reduction survey conducted pursuant to § 80.68 during 1997, the VOC emissions performance standard for that covered area beginning in the year following the failure shall be adjusted to be more stringent as follows:

(i) The required average VOC emissions reduction shall be increased by an additional 1.0%; and

(ii) The minimum VOC emissions reduction, for each gallon of averaged gasoline, shall be increased by an additional 1.0%.

(3) In the event that a covered area for which required VOC emissions reductions have been made more stringent passes all VOC emissions reduction surveys in two consecutive years, the averaging standards VOC emissions reduction for that covered area beginning in the year following the second year of passed survey series shall be made less stringent as follows:

(i) The required average VOC emissions reduction shall be decreased by 1.0%; and

(ii) The minimum VOC emissions reduction shall be decreased by 1.0%.

(4) In the event that a covered area for which the required VOC emissions reductions have been made less

stringent fails a subsequent VOC emissions reduction survey:

(i) The required average VOC emission reductions for that covered area beginning in the year following this subsequent failure shall be made more stringent by increasing the required average and the minimum VOC emissions reduction by 1.0%; and

(ii) The required VOC emission reductions for that covered area thereafter shall not be made less stringent regardless of the results of subsequent VOC emissions reduction surveys.

(l) *Effect of toxics survey failure.* (1) On each occasion during 1995 or 1996 that a covered area fails a simple model toxics emissions reduction survey series, conducted pursuant to § 80.68, the simple model toxics emissions reduction requirement for that covered area beginning in the year following the year of the failure is made more stringent by increasing the average toxics emissions reduction by an additional 1.0%.

(2) On each occasion that a covered area fails a complex model toxics emissions reduction survey series, conducted pursuant to § 80.68, or fails a simple model toxics emissions reduction survey series conducted pursuant to § 80.68 during 1997, the complex model toxics emissions reduction requirement for that covered area beginning in the year following the year of the failure is made more stringent by increasing the average toxics emissions reduction by an additional 1.0%.

(3) In the event that a covered area for which the toxics emissions standard has been made more stringent passes all toxics emissions survey series in two consecutive years, the averaging standard for toxics emissions reductions for that covered area beginning in the year following the second year of passed survey series shall be made less stringent by decreasing the average toxics emissions reduction by 1.0%.

(4) In the event that a covered area for which the toxics emissions reduction standard has been made less stringent fails a subsequent toxics emissions reduction survey series:

(i) The standard for toxics emissions reduction for that covered area beginning in the year following this subsequent failure shall be made more stringent by increasing the average toxics emissions reduction by 1.0%; and

(ii) The standard for toxics emissions reduction for that covered area thereafter shall not be made less stringent regardless of the results of subsequent toxics emissions reduction surveys.

(m) *Effect of NO_X survey failure.* (1) On each occasion that a covered area fails a NO_X emissions reduction survey conducted pursuant to § 80.68, except in the case Phase II complex model NO_X standards for VOC-controlled gasoline, the NO_X emissions reduction requirements for that covered area beginning in the year following the failure shall be adjusted to be more stringent as follows:

(i) The required average NO_X emissions reduction shall be increased by an additional 1.0%; and

(ii) The minimum NO_X emissions reduction, for each gallon of averaged gasoline, shall be increased by an additional 1.0%.

(2) In the event that a covered area for which required NO_X emissions reductions have been made more stringent passes all NO_X emissions reduction surveys in two consecutive years, the averaging standards for NO_X emissions reduction for that covered area beginning in the year following the second year of passed survey series shall be made less stringent as follows:

(i) The required average NO_X emissions reduction shall be decreased by 1.0%; and

(ii) The minimum NO_X emissions reduction shall be decreased by 1.0%.

(3) In the event that a covered area for which the required NO_X emissions reductions have been made less stringent fails a subsequent NO_X emissions reduction survey:

(i) The required average NO_X emission reductions for that covered area beginning in the year following this subsequent failure shall be made more stringent by increasing the required average and the minimum NO_X emissions reduction by 1.0%; and

(ii) The required NO_X emission reductions for that covered area thereafter shall not be made less stringent regardless of the results of subsequent NO_X emissions reduction surveys.

(n) *Effect of benzene survey failure.* (1) On each occasion that a covered area fails a benzene content survey series, conducted pursuant to § 80.68, the benzene content standards for that covered area beginning in the year following the year of the failure shall be made more stringent as follows:

(i) The average benzene content shall be decreased by 0.05% by volume; and

(ii) The maximum benzene content for each gallon of averaged gasoline shall be decreased by 0.10% by volume.

(2) In the event that a covered area for which the benzene standards have been made more stringent passes all benzene content survey series conducted in two consecutive years, the benzene standards for that covered area beginning in the year following the second year of passed survey series shall be made less stringent as follows:

(i) The average benzene content shall be increased by 0.05% by volume; and

(ii) The maximum benzene content for each gallon of averaged gasoline shall be increased by 0.10% by volume.

(3) In the event that a covered area for which the benzene standards have been made less stringent fails a subsequent benzene content survey series:

(i) The standards for benzene content for that covered area beginning in the year following this subsequent failure shall be the more stringent standards which were in effect prior to the operation of paragraph (n)(2) of this section; and

(ii) The standards for benzene content for that covered area thereafter shall not be made less stringent regardless of the results of subsequent benzene content surveys.

(o) *Effect of oxygen survey failure.* (1) In any year that a covered area fails an oxygen content survey series, conducted pursuant to § 80.68, the minimum oxygen content requirement for that covered area beginning in the year following the year of the failure is made more stringent by increasing the minimum oxygen content standard, for each gallon of averaged gasoline, by an additional 0.1%; however, in no case shall the minimum oxygen content standard be greater than 2.0%.

(2) In the event that a covered area for which the minimum oxygen content standard has been made more stringent passes all oxygen content survey series in two consecutive years, the minimum oxygen content standard for that covered area beginning in the year following the second year of passed survey series shall be made less stringent by decreasing the minimum oxygen content standard by 0.1%.

(3) In the event that a covered area for which the minimum oxygen content standard has been made less stringent fails a subsequent oxygen content survey series:

(i) The standard for minimum oxygen content for that covered area beginning in the year following this subsequent failure shall be made more stringent by increasing the minimum oxygen content standard by 0.1%; and

(ii) The minimum oxygen content standard for that covered area thereafter shall not be made less stringent regardless of the results of subsequent oxygen content surveys.

(p) *Effective date for changed minimum or maximum standards.* In the case of any minimum or maximum standard that is changed to be more

stringent by operation of paragraphs (k), (m), (n), or (o) of this section, the effective date for such change shall be ninety days following the date EPA announces the change.

(q) *Refineries, importers, and oxygenate blenders subject to adjusted standards.* Standards for average compliance that are adjusted to be more or less stringent by operation of paragraphs (k), (l), (m), (n), or (o) of this section apply to averaged reformulated gasoline produced at each refinery or oxygenate blending facility, or imported by each importer as follows:

(1) Adjusted standards for a covered area apply to averaged reformulated gasoline that is produced at a refinery or oxygenate blending facility if:

(i) Any averaged reformulated gasoline from that refinery or oxygenate blending facility supplied the covered area during any year a survey was conducted which gave rise to a standards adjustment; or

(ii) Any averaged reformulated gasoline from that refinery or oxygenate blending facility supplies the covered area during any year that the standards are more stringent than the initial standards; unless

(iii) The refiner or oxygenate blender is able to show that the volume of averaged reformulated gasoline from a refinery or oxygenate blending facility that supplied the covered area during any year under paragraphs (q)(1) (i) or (ii) of this section was less than one percent of the reformulated gasoline produced at the refinery or oxygenate blending facility during that year, or 100,000 barrels, whichever is less.

(2) Adjusted standards for a covered area apply to averaged reformulated gasoline that is imported by an importer if:

(i) The covered area with the adjusted standard is located in Petroleum Administration for Defense District (PADD) I, and the gasoline is imported at a facility located in PADDs I, II or III;

(ii) The covered area with the adjusted standard is located in PADD II, and the gasoline is imported at a facility located in PADDs I, II, III, or IV;

(iii) The covered area with the adjusted standard is located in PADD III, and the gasoline is imported at a facility located in PADDs II, III, or IV;

(iv) The covered area with the adjusted standard is located in PADD IV, and the gasoline is imported at a facility located in PADDs II, or IV; or

(v) The covered area with the adjusted standard is located in PADD V, and the gasoline is imported at a facility located in PADDs III, IV, or V; unless

(vi) Any gasoline which is imported by an importer at any facility located in any PADD supplies the covered area, in which case the adjusted standard also applies to averaged gasoline imported at that facility by that importer.

(3) Any gasoline that is transported in a fungible manner by a pipeline, barge, or vessel shall be considered to have supplied each covered area that is supplied with any gasoline by that pipeline, or barge or vessel shipment, unless the refiner or importer is able to establish that the gasoline it produced or imported was supplied only to a smaller number of covered areas.

(4) Adjusted standards apply to all averaged reformulated gasoline produced by a refinery or imported by an importer identified in this paragraph (q), except:

(i) In the case of adjusted VOC standards for a covered area located in VOC Control Region 1, the adjusted VOC standards apply only to averaged reformulated gasoline designated as VOC-controlled intended for use in VOC Control Region 1; and

(ii) In the case of adjusted VOC standards for a covered area located in VOC Control Region 2, the adjusted VOC standards apply only to averaged reformulated gasoline designated as VOC-controlled intended for use in VOC Control Region 2.

(r) *Definition of PADD.* For the purposes of this section only, the following definitions of PADDs apply:

(1) The following states are included in PADD I:

Connecticut
Delaware
District of Columbia
Florida
Georgia
Maine
Maryland
Massachusetts
New York
New Hampshire
New Jersey
North Carolina
Pennsylvania
Rhode Island
South Carolina
Vermont
Virginia
West Virginia

(2) The following states are included in PADD II:

Illinois
Indiana
Iowa
Kansas
Kentucky
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
Oklahoma
South Dakota
Tennessee
Wisconsin

(3) The following states are included in PADD III:

Alabama
Arkansas
Louisiana
Mississippi
New Mexico
Texas

(4) The following states are included in PADD IV:

Colorado
Idaho
Montana
Utah
Wyoming

(5) The following states are included in PADD V:

Arizona
California
Nevada
Oregon
Washington

§ 80.42 Simple emissions model.

(a) *VOC emissions.* The following equations shall comprise the simple model for VOC emissions. The simple model for VOC emissions shall be used only in determining toxics emissions:

Summer=The period of May 1 through September 15

Winter=The period of September 16 through April 30

EXHVOCS1=Exhaust nonmethane VOC emissions from the fuel in question, in grams per mile, for VOC control region 1 during the summer period

EXHVOCS2=Exhaust nonmethane VOC emissions from the fuel in question, in grams per mile, for VOC control region 2 during the summer period

EXHVOCW=Exhaust nonmethane VOC emissions from the fuel in question, in grams per mile, for the winter period

EVPVOCS1=Evaporative VOC emissions from the fuel in question, in grams per mile for VOC control region 1 during the summer period

EVPVOCS2=Evaporative VOC emissions from the fuel in question, in grams per mile for VOC control region 2 during the summer period

RLVOCS1=Running loss VOC emissions from the fuel in question, in grams per mile for VOC control region 1 during the summer period

RLVOCS2=Running loss VOC emissions from the fuel in question, in grams per mile for VOC control region 2 during the summer period

REFVOCS1=Refueling VOC emissions from the fuel in question, in grams per mile for VOC control region 1 during the summer period

REFVOCS2=Refueling VOC emissions from the fuel in question, in grams per mile for VOC control region 2 during the summer period
OXCON=Oxygen content of the fuel in question, in terms of weight percent (as measured under § 80.46)
RVP=Reid vapor pressure of the fuel in question, in pounds per square inch (psi)

(1) The following equations shall comprise the simple model for VOC emissions in VOC Control Region 1 during the summer period:

EXHVOCS1=0.444×(1−(0.127/2.7)×OXCON)
EVPVOCS1=0.7952−0.2461×RVP+0.02293×RVP×RVP
RLVOCS1=−0.734+0.1096×RVP+0.002791×RVP×RVP
REFVOCS1=0.04×((0.1667×RVP)−0.45)

(2) The following equations shall comprise the simple model for VOC emissions in VOC Control Region 2 during the summer period:

EXHVOCS2=0.444×(1−(0.127/2.7)×OXCON)
EVPVOCS2=0.813−0.2393×RVP+0.021239×RVP×RVP
RLVOCS2=0.2963−0.1306×RVP+0.016255×RVP×RVP
REFVOCS2=0.04×((0.1667×RVP)−0.45)

(3) The following equation shall comprise the simple model for VOC emissions during the winter period:

EXHVOCW=0.656×(1−(0.127/2.7)×OXCON)

(b) *Toxics emissions.* The following equations shall comprise the simple model for toxics emissions:

EXHBEN=Exhaust benzene emissions from the fuel in question, in milligrams per mile
EVPBEN=Evaporative benzene emissions from the fuel in question, in milligrams per mile
HSBEN=Hot soak benzene emissions from the fuel in question, in milligrams per mile
DIBEN=Diurnal benzene emissions from the fuel in question, in milligrams per mile
RLBEN=Running loss benzene emissions from the fuel in question, in milligrams per mile
REFBEN=Refueling benzene emissions from the fuel in question, in milligrams per mile
MTBE=Oxygen content of the fuel in question in the form of MTBE, in terms of weight percent (as measured under § 80.46)
ETOH=Oxygen content of the fuel in question in the form of ethanol, in terms of weight percent (as measured under § 80.46)
ETBE=Oxygen content of the fuel in question in the form of ETBE, in terms of weight percent (as measured under § 80.46)
FORM=Formaldehyde emissions from the fuel in question, in milligrams per mile
ACET=Acetaldehyde emissions from the fuel in question, in milligrams per mile
POM=Emissions of polycyclic organic matter from the fuel in question, in milligrams per mile
BUTA=Emissions of 1,3-Butadiene from the fuel in question, in milligrams per mile
FBEN=Fuel benzene of the fuel in question, in terms of volume percent (as measured under § 80.46)
FAROM=Fuel aromatics of the fuel in question, in terms of volume percent (as measured under § 80.46)
TOXREDS1=Total toxics reduction of the fuel in question during the summer period for VOC control region 1 in percent
TOXREDS2=Total toxics reduction of the fuel in question during the summer period for VOC control region 2 in percent
TOXREDW=Total toxics reduction of the fuel in question during the winter period in percent

(1) The following equations shall comprise the simple model for toxics emissions in VOC control region 1 during the summer period:

TOXREDS1=[100×(53.2−EXHBEN−EVPBEN−RLBEN−REFBEN−FORM−ACET−BUTA−POM)]/53.2
EXHBEN=[1.884+0.949×FBEN+0.113×(FAROM−FBEN))/100]×1000×EXHVOCS1
EVPBEN=HSBEN+DIBEN
HSBEN=FBEN×(EVPVOCS1×0.679)×1000×[(1.4448−(0.0684×MTBE/2.0)−(0.080274×RVP))/100]
DIBEN=FBEN×(EVPVOCS1×0.321)×1000×[(1.3758−(0.0579×MTBE/2.0)−(0.080274×RVP))/100]
RLBEN=FBEN×RLVOCS1×1000×[(1.4448−(0.0684×MTBE/2.0)−(0.080274×RVP))/100]
REFBEN=FBEN×REFVOCS1×1000×[(1.3972−(0.0591xMTBE/2.0)−(0.081507×RVP))/100]
BUTA=0.00556xEXHVOCS1x1000
POM=3.15×EXHVOCS1

(i) For any oxygenate or mixtures of oxygenates, the formaldehyde and acetaldehyde shall be calculated with the following equations:

FORM=0.01256×EXHVOCS1×1000×[1+(0.421/2.7)×MTBE+TAME)+(0.358/3.55)×ETOH+(0.137/2.7)×(ETBE+ETAE)]
ACET=0.00891×EXHVOCS1×1000×[1+(0.078/2.7)×(MTBE+TAME)+(0.865/3.55)×ETOH+(0.867/2.7)×(ETBE+ETAE)]

(ii) When calculating formaldehyde and acetaldehyde emissions using the equations in paragraph (b)(1)(i) of this section, oxygen in the form of alcohols which are more complex or have higher molecular weights than ethanol shall be evaluated as if it were in the form of ethanol. Oxygen in the form of methyl ethers other than TAME and MTBE shall be evaluated as if it were in the form of MTBE. Oxygen in the form of ethyl ethers other than ETBE shall be evaluated as if it were in the form of ETBE. Oxygen in the form of non-methyl, non-ethyl ethers shall be evaluated as if it were in the form of ETBE.

(2) The following equations shall comprise the simple model for toxics emissions in VOC control region 2 during the summer period:

TOXREDS2=100×(52.1−EXHBEN−EVPBEN−RLBEN−REFBEN−FORM−ACET−BUTA−POM)/52.1
EXHBEN=[(1.884+0.949×FBEN+0.113×(FAROM−FBEN))/100]×1000×EXHVOCS2
EVPBEN=HSBEN+DIBEN
HSBEN=FBEN×(EVPVOCS2×0.679)×1000×[(1.4448−(0.0684×MTBE/2.0)−(0.080274×RVP))/100]
DIBEN=FBEN×(EVPVOCS2×0.321)×1000×[(1.3758−(0.0579×MTBE/2.0)−(0.080274×RVP))/100]
RLBEN=FBEN×RLVOCS2×1000×[(1.4448−(0.0684×MTBE/2.0)−(0.080274×RVP))/100]
REFBEN=FBEN×REFVOCS2×1000×[(1.3972−(0.0591×MTBE/2.0)−(0.081507×RVP))/100]
BUTA=0.00556×EXHVOCS2×1000
POM=3.15×EXHVOCS2

(i) For any oxygenate or mixtures of oxygenates, the formaldehyde and acetaldehyde shall be calculated with the following equations:

FORM=0.01256×EEXHVOCS2×1000×[1+(0.421/2.7)×(MTBE+TAME)+(0.358/3.55)×ETOH+(0.137/2.7)×(ETBE+ETAE)]
ACET=0.00891×EXHVOCS2×1000×[1+(0.078/2.7)×(MTBE+TAME)+(0.865/3.55)×ETOH+(0.867/2.7)×(ETBE+ETAE)]

(ii) When calculating formaldehyde and acetaldehyde emissions using the equations in paragraph (b)(2)(i) of this section, oxygen in the form of alcohols which are more complex or have higher molecular weights than ethanol shall be evaluated as if it were in the form of ethanol. Oxygen in the form of methyl ethers other than TAME and MTBE shall be evaluated as if it were in the form of MTBE. Oxygen in the form of

ethyl ethers other than ETBE shall be evaluated as if it were in the form of ETBE. Oxygen in the form of non-methyl, non-ethyl ethers shall be evaluated as if it were in the form of ETBE.

(3) The following equations shall comprise the simple model for toxics emissions during the winter period:

TOXREDW=100 × (55.5 − EXHBEN − FORM − ACET − BUTA − POM) /55.5

EXHBEN=[(1.884+0.949 × FBEN+0.113 × (FAROM − FBEN)) /100] × 1000 × EXHVOCW

BUTA=0.00556 × EXHVOCW × 1000

POM=2.13 × EXHVOCW

(i) For any oxygenate or mixtures of oxygenates, the formaldehyde and acetaldehyde shall be calculated with the following equations:

FORM=0.01256 × EXHVOCS1 × 1000 × [1+(0.421/2.7) × (MTBE+TAME)+(0.358/3.55) × ETOH+(0.137/2.7) × (ETBE+ETAE)]

ACET=0.00891 × EXHVOCS1 × 1000 × [1+(0.078/2.7) × (MTBE+TAME)+(0.865/3.55) × ETOH+(0.867/2.7) × (ETBE+ETAE)]

(ii) When calculating formaldehyde and acetaldehyde emissions using the equations in paragraph (b)(3)(i) of this section, oxygen in the form of alcohols which are more complex or have higher molecular weights than ethanol shall be evaluated as if it were in the form of ethanol. Oxygen in the form of methyl ethers other than TAME and MTBE shall be evaluated as if it were in the form of MTBE. Oxygen in the form of ethyl ethers other than ETBE shall be evaluated as if it were in the form of ETBE. Oxygen in the form of non-methyl, non-ethyl ethers shall be evaluated as if it were in the form of ETBE.

(c) *Limits of the model.* (1) The model given in paragraphs (a) and (b) of this section shall be used as given to determine VOC and toxics emissions, respectively, if the properties of the fuel being evaluated fall within the ranges shown in this paragraph (c). If the properties of the fuel being evaluated fall outside the range shown in this paragraph (c), the model may not be used to determine the VOC or toxics performance of the fuel:

Fuel parameter	Range
Benzene content	0–2.5 vol %
RVP	6.6–9.0 psi
Oxygenate content	0–3.5 vol %
Aromatics content	10–45 vol %

(2) The model given in paragraphs (a) and (b) of this section shall be effective from January 1, 1995 through December 31, 1997, unless extended by action of the Administrator.

§§ 80.43–80.44 [Reserved]

§ 80.45 Complex emissions model.

(a) *Definition of terms.* For the purposes of this section, the following definitions shall apply:

Target fuel=The fuel which is being evaluated for its emissions performance using the complex model

OXY=Oxygen content of the target fuel in terms of weight percent

SUL=Sulfur content of the target fuel in terms of parts per million by weight

RVP=Reid Vapor Pressure of the target fuel in terms of pounds per square inch

E200=200 °F distillation fraction of the target fuel in terms of volume percent

E300=300 °F distillation fraction of the target fuel in terms of volume percent

ARO=Aromatics content of the target fuel in terms of volume percent

BEN=Benzene content of the target fuel in terms of volume percent

OLE=Olefins content of the target fuel in terms of volume percent

MTB=Methyl tertiary butyl ether content of the target fuel in terms of weight percent oxygen

ETB=Ethyl tertiary butyl ether content of the target fuel in terms of weight percent oxygen

TAM=Tertiary amyl methyl ether content of the target fuel in terms of weight percent oxygen

ETH=Ethanol content of the target fuel in terms of weight percent oxygen

exp=The function that raises the number e (the base of the natural logarithm) to the power in its domain

Phase I=The years 1995–1999

Phase II=Year 2000 and beyond

(b) *Weightings and baselines for the complex model.* (1) The weightings for normal and higher emitters (w_1 and w_2, respectively) given in Table 1 shall be used to calculate the exhaust emission performance of any fuel for the appropriate pollutant and Phase:

TABLE 1.—NORMAL AND HIGHER EMITTER WEIGHTINGS FOR EXHAUST EMISSIONS

	Phase I		Phase II	
	VOC & toxics	NO_x	VOC & toxics	NO_x
Normal Emitters (w_1)	0.52	0.82	0.444	0.738
Higher Emitters (w_2)	0.48	0.18	0.556	0.262

(2) The following properties of the baseline fuels shall be used when determining baseline mass emissions of the various pollutants:

TABLE 2.—SUMMER AND WINTER BASELINE FUEL PROPERTIES

Fuel property	Summer	Winter
Oxygen (wt %)	0.0	0.0
Sulfur (ppm)	339	338
RVP (psi)	8.7	11.5
E200 (%)	41.0	50.0
E300 (%)	83.0	83.0
Aromatics (vol %)	32.0	26.4
Olefins (vol %)	9.2	11.9
Benzene (vol %)	1.53	1.64

(3) The baseline mass emissions for VOC, NO_x and toxics given in Tables 3, 4 and 5 of this paragraph (b)(3) shall be used in conjunction with the complex model during the appropriate Phase and season:

TABLE 3.—BASELINE EXHAUST EMISSIONS

Exhaust pollutant	Phase I		Phase II	
	Summer (mg/mile)	Winter (mg/mile)	Summer (mg/mile)	Winter (mg/mile)
VOC	446	660	907	1341
NO_X	660	750	1340	1540
Benzene	26.10	37.57	53.54	77.62
Acetaldehyde	2.19	3.57	4.44	7.25
Formaldehyde	4.85	7.73	9.70	15.34
1,3-Butadiene	4.31	7.27	9.38	15.84
POM	1.50	2.21	3.04	4.50

TABLE 4.—BASELINE NON-EXHAUST EMISSIONS (SUMMER ONLY)

Non-exhaust pollutant	Phase I		Phase II	
	Region 1 (mg/mile)	Region 2 (mg/mile)	Region 1 (mg/mile)	Region 2 (mg/mile)
VOC	860.48	769.10	559.31	492.07
Benzene	9.66	8.63	6.24	5.50

TABLE 5.—TOTAL BASELINE VOC, NO_X AND TOXICS EMISSIONS

Pollutant	Summer (mg/mile)				Winter (mg/mile)			
	Phase I		Phase II		Phase I		Phase II	
	Region 1	Region 2	Region 1	Region 2	Region 1	Region 2	Region 1	Region 2
NO_X	660.0	660.0	1340.0	1340.0	750.0	750.0	1540.0	1540.0
VOC	1306.5	1215.1	1466.3	1399.1	660.0	660.0	1341.0	1341.0
Toxics	48.61	47.58	86.34	85.61	58.36	58.36	120.55	120.55

(c) *VOC performance.* (1) The exhaust VOC emissions performance of gasolines shall be given by the following equations:

$VOCE=VOC(b)+(VOC(b)\times Y_{voc}(t)/100)$

$Y_{voc}(t)=[(w_1\times N_v)+(w_2\times H_v)-1]\times 100$

where

VOCE=Exhaust VOC emissions in milligrams/mile

$Y_{voc}(t)$=Exhaust VOC performance of the target fuel in terms of percentage change from baseline

VOC(b)=Baseline exhaust VOC emissions as defined in paragraph (b)(2) of this section for the appropriate Phase and season

$N_v=[\exp v_1(t)]/[\exp v_1(b)]$

$H_v=[\exp v_2(t)]/[\exp v_2(b)]$

w_1=Weighting factor for normal emitters as defined in paragraph (b)(1) of this section for the appropriate Phase

w_2=Weighting factor for higher emitters as defined in paragraph (b)(1) of this section for the appropriate Phase

$v_1(t)$=Normal emitter VOC equation as defined in paragraph (c)(1)(i) of this section, evaluated using the target fuel's properties subject to paragraphs (c)(1) (iii) and (iv) of this section

$v_2(t)$=Higher emitter VOC equation as defined in paragraph (c)(1)(ii) of this section, evaluated using the target fuel's properties subject to paragraphs (c)(1) (iii) and (iv) of this section

$v_1(b)$=Normal emitter VOC equation as defined in paragraph (c)(1)(i) of this section, evaluated using the base fuel's properties

$v_2(b)$=Higher emitter VOC equation as defined in paragraph (c)(1)(ii) of this section, evaluated using the base fuel's properties

(i) *Consolidated VOC equation for normal emitters.*

$v_1=(-0.003641\times OXY)+(0.0005219\times SUL)+(0.0289749\times RVP)+(-0.014470\times E200)+(-0.068624\times E300)+(0.0323712\times ARO)+(-0.002858\times OLE)+(0.0001072\times E200^2)+(0.0004087\times E300^2)+(-0.0003481\times ARO\times E300)$

(ii) *VOC equation for higher emitters.*

$v_2=(-0.003626\times OXY)+(-5.40\times 10^{-5}\times SUL)+(0.043295\times RVP)+(-0.013504\times E200)+(-0.062327\times E300)+(0.0282042\times ARO)+(-0.002858\times OLE)+(0.000106\times E200^2)+(0.000408\times E300^2)+(-0.000287\times ARO\times E300)$

(iii) *Flat line extrapolations.* (A) During Phase I, fuels with E200 values greater than 65.83 percent shall be evaluated with the E200 fuel parameter set equal to 65.83 percent when calculating $Y_{voc}(t)$ and VOCE using the equations described in paragraphs (c)(1)(i) and (ii) of this section. Fuels with E300 values greater than E300* (calculated using the equation $E300^*=80.32+[0.390\times ARO]$) shall be evaluated with the E300 parameter set equal to E300* when calculating VOCE using the equations described in paragraphs (c)(1) (i) and (ii) of this section. For E300* values greater than 94, the linearly extrapolated model presented in paragraph (c)(1)(iv) of this section shall be used.

(B) During Phase II, fuels with E200 values greater than 65.52 percent shall be evaluated with the E200 fuel parameter set equal to 65.52 percent when calculating VOCE using the equations described in paragraphs (c)(1)(i) and (ii) of this section. Fuels with E300 values greater than E300* (calculated using the equation $E300^*=79.75+[0.385\times ARO]$) shall be evaluated with the E300 parameter set equal to E300* when calculating VOCE

using the equations described in paragraphs (c)(1) (i) and (ii) of this section. For E300* values greater than 94, the linearly extrapolated model presented in paragraph (c)(1)(iv) of this section shall be used.

(iv) *Linear extrapolations.* (A) The equations in paragraphs (c)(1) (i) and (ii) of this section shall be used within the allowable range of E300, E200, and ARO for the appropriate Phase, as defined in Table 6:

TABLE 6.—ALLOWABLE RANGES OF E200, E300, AND ARO FOR THE EXHAUST VOC EQUATIONS IN PARAGRAPHS (c)(1)(i) AND (ii) OF THIS SECTION

Fuel parameter	Phase I		Phase II	
	Lower limit	Higher limit	Lower limit	Higher limit
E200	33.00	65.83	33.00	65.52
E300	72.00	[1] Variable	72.00	[2] Variable
ARO	18.00	46.00	18.00	46.00

[1] Higher E300 Limit=80.32+[0.390×(ARO)].
[2] Higher E300 Limit=79.75+[0.385×(ARO)].

(B) For fuels with E200, E300 and ARO levels outside the ranges defined in Table 6, $Y_{voc}(t)$ shall be defined as:

For Phase I:

$$Y_{voc}(t)=100\%\times 0.52\times[\exp(v_1(et))/\exp(v_1(b))-1]+100\%\times 0.48\times[\exp(v_2(et))/\exp(v_2(b))-1]+\{[100\%\times 0.52\times\exp(v_1(et))/\exp(v_1(b))]\times\{\{[(0.0002144\times E200_{et})-0.014470]\times\Delta E200\}+\{[(0.0008174\times E300_{et})-0.068624-(0.000348\times ARO_{et})]\times\Delta E300\}+\{[(-0.000348\times E300_{et})+0.0323712]\times\Delta ARO\}\}+\{[100\%\times 0.48\times\exp(v_2(et))/\exp(v_2(b))]\times[\{[(0.000212\times E200_{et})-0.01350]\times\Delta E200\}+\{[(0.000816\times E300_{et})-0.06233-(0.00029\times ARO_{et})]\times\Delta E300\}+\{[(-0.00029\times E300_{et})+0.028204]\times\Delta ARO\}.]\}$$

For Phase II:

$$Y_{voc}(t)=100\%\times 0.444\times[\exp(v_1(et))/\exp(v_1(b))-1]+100\%\times 0.556\times[\exp(v_2(et))/\exp(v_2(b))-1]+\{[100\%\times 0.444\times\exp(v_1(et))/\exp(v_1(b))]\times[\{[(0.0002144\times E200_{et})-0.014470]\times\Delta E200\}+\{[(0.0008174\times E300_{et})-0.068624-(0.000348\times ARO_{et})]\times\Delta E300\}+\{[(-0.000348\times E300_{et})+0.0323712]\times\Delta ARO\}\}+\{[100\%\times 0.556\times\exp(v_2(et))/\exp(v_2(b))]\times[\{[(0.000212\times E200_{et})-0.01350]\times\Delta E200\}+\{[(0.000816\times E300_{et})-0.06233-(0.00029\times ARO_{et})]\times\Delta E300\}+\{[(-0.00029\times E300_{et})+0.028204]\times\Delta ARO\}\}]\}$$

where

v_1, v_2=The equations defined in paragraphs (c)(1) (i) and (ii) of this section

et=Collection of fuel parameters for the "edge target" fuel. These parameters are defined in paragraphs (c)(1)(iv)(C) and (D) of this section

$v_1(et)$=The function v_1 evaluated with "edge target" fuel parameters, which are defined in paragraphs (c)(1)(iv)(C) and (D) of this section

$v_2(et)$=The function v_2 evaluated with "edge target" fuel parameters, which are defined in paragraphs (c)(1)(iv)(C) and (D) of this section

$v_1(b)$=The function v_1 evaluated with the appropriate baseline fuel defined in paragraph (b)(2) of this section

$v_2(b)$=The function v_2 evaluated with the appropriate baseline fuel defined in paragraph (b)(2) of this section

$E200_{et}$=The value of E200 for the "edge target" fuel, as defined in paragraphs (c)(1)(iv)(C) and (D) of this section

$E300_{et}$=The value of E300 for the "edge target" fuel, as defined in paragraphs (c)(1)(iv)(C) and (D) of this section

ARO_{et}=The value of ARO for the "edge target" fuel, as defined in paragraphs (c)(1)(iv)(C) and (D) of this section.

(C) During Phase I, the "edge target" fuel shall be identical to the target fuel for all fuel parameters, with the following exceptions:

(1) If the E200 level of the target fuel is less than 33 volume percent, then the E200 value for the "edge target" fuel shall be set equal to 33 volume percent.

(2) If the aromatics level of the target fuel is less than 18 volume percent, then the ARO value for the "edge target" fuel shall be set equal to 18 volume percent.

(3) If the aromatics level of the target fuel is greater than 46 volume percent, then the ARO value for the "edge target" fuel shall be set equal to 46 volume percent.

(4) If the E300 level of the target fuel is less than 72 volume percent, then the E300 value for the "edge target" fuel shall be set equal to 72 volume percent.

(5) If the E300 level of the target fuel is greater than 95 volume percent, then the E300 value for the "edge target" fuel shall be set equal to 95 volume percent.

(6) If [80.32+(0.390×ARO)] exceeds 94 for the target fuel, then the E300 value for the "edge target" fuel shall be set equal to 94 volume percent.

(7) If the E200 level of the target fuel is less than 33 volume percent, then ΔE200 shall be set equal to (E200−33 volume percent).

(8) If the E200 level of the target fuel equals or exceeds 33 volume percent, then ΔE200 shall be set equal to zero.

(9) If the aromatics level of the target fuel is less than 18 volume percent, then ΔARO shall be set equal to (ARO−18 volume percent). If the aromatics level of the target fuel is less than 10 volume percent, then ΔARO shall be set equal to 8 volume percent.

(10) If the aromatics level of the target fuel is greater than 46 volume percent, then ΔARO shall be set equal to (ARO−46 volume percent).

(11) If neither of the conditions established in paragraphs (c)(1)(iv)(C)*(8)* and *(9)* of this section are met, then ΔARO shall be set equal to zero.

(12) If the E300 level of the target fuel is less than 72 volume percent, then E300 shall be set equal to (E300−72 volume percent).

(13) If the E300 level of the target fuel is less than 94 volume percent and [80.32+(0.390×ARO)] also is greater than 94, then ΔE300 shall be set equal to (E300−94 volume percent). If the E300 level of the target fuel is greater than 95 volume percent and [80.32+(0.390×ARO)] also is greater than 94, then ΔE300 shall be set equal to 1 volume percent.

(14) If neither of the conditions established in paragraphs (c)(1)(iv)(C)*(11)* and *(12)* of this section

are met, then ΔE300 shall be set equal to zero.

(D) During Phase II, the "edge target" fuel is identical to the target fuel for all fuel parameters, with the following exceptions:

(1) If the E200 level of the target fuel is less than 33 volume percent, then the E200 value for the "edge target" fuel shall be set equal to 33 volume percent.

(2) If the aromatics level of the target fuel is less than 18 volume percent, then the ARO value for the "edge target" fuel shall be set equal to 18 volume percent.

(3) If the aromatics level of the target fuel is greater than 46 volume percent, then the ARO value for the "edge target" fuel shall be set equal to 46 volume percent.

(4) If the E300 level of the target fuel is less than 72 volume percent, then the E300 value for the "edge target" fuel shall be set equal to 72 volume percent.

(5) If the E300 level of the target fuel is greater than 95 volume percent, then the E300 value for the "edge target" fuel shall be set equal to 95 volume percent.

(6) If [79.75+(0.385×ARO)] exceeds 94 for the target fuel, then the E300 value for the "edge target" fuel shall be set equal to 94 volume percent.

(7) If the E200 level of the target fuel is less than 33 volume percent, then ΔE200 shall be set equal to (E200 − 33 volume percent).

(8) If the E200 level of the target fuel equals or exceeds 33 volume percent, then ΔE200 shall be set equal to zero.

(9) If the aromatics level of the target fuel is less than 18 volume percent and greater than or equal to 10 volume percent, then ΔARO shall be set equal to (ARO − 18 volume percent). If the aromatics level of the target fuel is less than 10 volume percent, then ΔARO shall be set equal to 8 volume percent.

(10) If the aromatics level of the target fuel is greater than 46 volume percent, then ΔARO shall be set equal to (ARO − 46 volume percent).

(11) If neither of the conditions established in paragraphs (c)(1)(iv)(D)*(8)* and *(9)* of this section are met, then ΔARO shall be set equal to zero.

(12) If the E300 level of the target fuel is less than 72 volume percent, then ΔE300 shall be set equal to (E30'0 − 72 volume percent).

(13) If the E300 level of the target fuel is less than 94 volume percent and [79.75+(0.385×ARO)] also is greater than 94, then ΔE300 shall be set equal to (E300 − 94 volume percent). If the E300 level of the target fuel is greater than 95 volume percent and [79.75+(0.385×ARO)] also is greater than 94, then ΔE300 shall be set equal to 1 volume percent.

(14) If neither of the conditions established in paragraphs (c)(1)(iv)(D)*(11)* and *(12)* of this section are met, then ΔE300 shall be set equal to zero.

(2) The winter exhaust VOC emissions performance of gasolines shall be given by the equations presented in paragraph (c)(1) of this section with the RVP value set to 8.7 psi for both the baseline and target fuels.

(3) The nonexhaust VOC emissions performance of gasolines in VOC Control Region 1 shall be given by the following equations, where:

VOCNE1=Total nonexhaust emissions of volatile organic compounds in VOC Control Region 1 in grams per mile

VOCDI1=Diurnal emissions of volatile organic compounds in VOC Control Region 1 in grams per mile

VOCHS1=Hot soak emissions of volatile organic compounds in VOC Control Region 1 in grams per mile

VOCRL1=Running loss emissions of volatile organic compounds in VOC Control Region 1 in grams per mile

VOCRF1=Refueling emissions of volatile organic compounds in VOC Control Region 1 in grams per mile

(i) During Phase I:

VOCNE1=VOCDI1+VOCHS1+VOCRL1+VOCRF1

$VOCDI1=[0.00736\times(RVP^2)]-[0.0790\times RVP]+0.2553$

$VOCHS1=[0.01557\times(RVP^2)]-[0.1671\times RVP]+0.5399$

$VOCRL1=[0.00279\times(RVP^2)]-[0.1096\times RVP]-0.7340$

$VOCRF1=[0.006668\times RVP]-0.0180$

(ii) During Phase II:

VOCNE1=VOCDI1+VOCHS1+VOCRL1+VOCRF1

$VOCDI1=[0.007385\times(RVP^2)]-[0.08981\times RVP]+0.3158$

$VOCHS1=[0.006654\times(RVP^2)]-[0.08009\times RVP]+0.2846$

$VOCRL1=[0.017768\times(RVP^2)]-[0.18746\times RVP]+0.6146$

$VOCRF1=[0.0004767\times RVP]+0.011859$

(4) The nonexhaust VOC emissions performance of gasolines in VOC Control Region 2 shall be given by the following equations, where:

VOCNE2=Total nonexhaust emissions of volatile organic compounds in VOC Control Region 2 in grams per mile

VOCDI2=Diurnal emissions of volatile organic compounds in VOC Control Region 2 in grams per mile

VOCHS2=Hot soak emissions of volatile organic compounds in VOC Control Region 2 in grams per mile

VOCRL2=Running loss emissions of volatile organic compounds in VOC Control Region 2 in grams per mile

VOCRF2=Refueling emissions of volatile organic compounds in VOC Control Region 2 in grams per mile

(i) During Phase I:

VOCNE2=VOCDI2+VOCHS2+VOCRL2+VOCRF2

$VOCDI2=[0.006818\times(RVP^2)]-[0.07682\times RVP]+0.2610$

$VOCHS2=[0.014421\times(RVP^2)]-[0.16248\times RVP]+0.5520$

$VOCRL2=[0.016255\times(RVP^2)]-[0.1306\times RVP]+0.2963$

$VOCRF2=[0.006668\times RVP]-0.0180$

(ii) During Phase II:

VOCNE2=VOCDI2+VOCHS2+VOCRL2+VOCRF2

$VOCDI2=[0.004775\times(RVP^2)]-[0.05872\times RVP]+0.21306$

$VOCHS2=[0.006078\times(RVP^2)]-[0.07474\times RVP]+0.27117$

$VOCRL2=[0.016169\times(RVP^2)]\pm[0.17206\times RVP]+0.56724$

$VOCRF2=[0.004767\times RVP]+0.011859$

(5) Winter VOC emissions shall be given by VOCE, as defined in paragraph (c)(2) of this section, using the appropriate baseline emissions given in paragraph (b)(3) of this section. Total nonexhaust VOC emissions shall be set equal to zero under winter conditions.

(6) *Total VOC emissions.* (i) Total summer VOC emissions shall be given by the following equations:

VOCS1=(VOCE/1000)+VOCNE1

VOCS2=(VOCE/1000)+VOCNE2

VOCS1=Total summer VOC emissions in VOC Control Region 1 in terms of grams per mile

VOCS2=Total summer VOC emissions in VOC Control Region 2 in terms of grams per mile

(ii) Total winter VOC emissions shall be given by the following equations:

VOCW=(VOCE/1000)

VOCW=Total winter VOC emissions in terms of grams per mile

(7) *Phase I total VOC emissions performance.* (i) The total summer VOC emissions performance of the target fuel in percentage terms from baseline levels shall be given by the following equations during Phase I:

VOCS1%=[100% × (VOCS1 − 1.306 g/mi)]/(1.306 g/mi)

VOCS2%=[100% × (VOCS2 − 1.215 g/mi)]/(1.215 g/mi)

VOC1%=Percentage change in VOC emissions from baseline levels in VOC Control Region 1

VOC2%=Percentage change in VOC emissions from baseline levels in VOC Control Region 2

(ii) The total winter VOC emissions performance of the target fuel in percentage terms from baseline levels shall be given by the following equations during Phase I:

$VOCW\% = [100\% \times (VOCW - 0.660\ g/mi)]/(0.660\ g/mi)$

$VOCW\%$=Percentage change in winter VOC emissions from baseline levels

(8) *Phase II total VOC emissions performance.* (i) The total summer VOC emissions performance of the target fuel in percentage terms from baseline levels shall be given by the following equations during Phase II:

$VOCS1\% = [100\% \times (VOCS1 - 1.4663\ g/mi)]/(1.4663\ g/mi)$

$VOCS2\% = [100\% \times (VOCS2 - 1.3991\ g/mi)]/(1.3991\ g/mi)$

(ii) The total winter VOC emissions performance of the target fuel in percentage terms from baseline levels shall be given by the following equation during Phase II:

$VOCW\% = [100\% \times (VOC - 1.341\ g/mi)]/(1.341\ g/mi)$

for

(d) *NO_X performance.* (1) The summer NO_X emissions performance of gasolines shall be given by the following equations:

$NO_X = NO_X(b) + [NO_X(b) \times Y(t)/100]$

$Y_{NOX}(t) = [(w_1 \times N_n) + (w_2 \times H_n) - 1] \times 100$

where

NO_X=NO_X emissions in milligrams/mile

$Y_{NOx}(t)$=NO_X performance of target fuel in terms of percentage change from baseline

$NO_X(b)$=Baseline NO_X emissions as defined in paragraph (b)(2) of this section for the appropriate phase and season

$N_n = \exp n_1(t)/\exp n_1(b)$

$H_n = \exp n_2(t)/\exp n_2(b)$

w_1=Weighting factor for normal emitters as defined in paragraph (b)(1) of this section for the appropriate Phase

w_2=Weighting factor for higher emitters as defined in paragraph (b)(1) of this section for the appropriate Phase

$n_1(t)$=Normal emitter NO_X equation as defined in paragraph (d)(1)(i) of this section, evaluated using the target fuel's properties subject to paragraphs (d)(1)(iii) and (iv) of this section

$n_2(t)$=Higher emitter NO_X equation as defined in paragraph (d)(1)(ii) of this section, evaluated using the target fuel's properties subject to paragraphs (d)(1)(iii) and (iv) of this section

$n_1(b)$=Normal emitter NO_X equation as defined in paragraph (d)(1)(i) of this section, evaluated using the base fuel's properties

$n_2(b)$=Higher emitter NO_X equation as defined in paragraph (d)(1)(ii) of this section, evaluated using the base fuel's properties

(i) *Consolidated equation for normal emitters.*

$n_1 = (0.0018571 \times OXY) + (0.0006921 \times SUL) + (0.0090744 \times RVP) + (0.0009310 \times E200) + (0.0008460 \times E300) + (0.0083632 \times ARO) + (-0.002774 \times OLE) + (-6.63X10^{-7} \times SUL^2) + (-0.000119 \times ARO^2) + (0.0003665 \times OLE^2)$

(ii) *Equation for higher emitters.*

$n_2 = (-0.00913 \times OXY) + (0.000252 \times SUL) + (-0.01397 \times RVP) + (0.000931 \times E200) + (-0.00401 \times E300) + (0.007097 \times ARO) + (-0.00276 \times OLE) + (0.0003665 \times OLE^2) + (-7.995x10^{-5} \times ARO^2)$

(iii) *Flat line extrapolations.* (A) During Phase I, fuels with olefin levels less than 3.77 volume percent shall be evaluated with the OLE fuel parameter set equal to 3.77 volume percent when calculating NO_X performance using the equations described in paragraphs (d)(1)(i) and (ii) of this section. Fuels with aromatics levels greater than 36.2 volume percent shall be evaluated with the ARO fuel parameter set equal to 36.2 volume percent when calculating NO_X performance using the equations described in paragraphs (d)(1)(i) and (ii) of this section.

(B) During Phase II, fuels with olefin levels less than 3.77 volume percent shall be evaluated with the OLE fuel parameter set equal to 3.77 volume percent when calculating NO_X performance using the equations described in paragraphs (d)(1)(i) and (ii) of this section. Fuels with aromatics levels greater than 36.8 volume percent shall be evaluated with the ARO fuel parameter set equal to 36.8 volume percent when calculating NO_X performance using the equations described in paragraphs (d)(1)(i) and (ii) of this section.

(iv) *Linear extrapolations.* (A) The equations in paragraphs (d)(1)(i) and (ii) of this section shall be used within the allowable range of SUL, E300, OLE, and ARO for the appropriate Phase, as defined in the following Table 7:

TABLE 7.—ALLOWABLE RANGES OF SUL, OLE, AND ARO FOR THE NO_X EQUATIONS IN PARAGRAPHS (d)(1)(i) AND (ii) OF THIS SECTION

Fuel parameter	Phase I		Phase II	
	Low end	High end	Low end	High end
SUL	10.0	450.0	10.0	450.0
E300	70.0	95.0	70.0	95.0
OLE	3.77	19.0	3.77	19.0
ARO	18.0	36.2	18.0	36.8

(B) For fuels with SUL, E300, OLE and ARO levels outside the ranges defined in Table 7 of paragraph (d)(1)(iv)(A) of this section, $Y_{NOx}(t)$ shall be defined as:

For Phase I:

$Y_{NOx}(t) = 100\% \times 0.82 \times [\exp(n_1(et)) / \exp(n_1(b)) - 1] + 100\% \times 0.18 \times [\exp(n_2(et) / \exp(n_2(b)) - 1] + \{[100\% \times 0.82 \times [\exp(n_1(et)) / \exp(n_1(b))] \times [\{[(-0.00000133 \times SUL_{et}) + 0.000692] \times \Delta SUL\} + \{[(-0.000238 \times ARO_{et}) + 0.0083632] \times \Delta ARO\} + \{[(0.000733 \times OLE_{et}) - 0.002774] \times \Delta OLE\}]\} + \{[100\% \times 0.18 \times [\exp(n_2(et)) / \exp(n_2(b))] \times [\{[(-0.0001599 \times ARO_{et}) + 0.007097] \times \Delta ARO\} + \{[(0.000732 \times OLE_{et}) - 0.00276] \times \Delta OLE\}]\}$

For Phase II:

$Y_{NOx}(t) = 100\% \times 0.738 \times [\exp(n_1(et)) / \exp(n_1(b)) - 1] + 100\% \times 0.262 \times [\exp(n_2(et) / \exp(n_2(b)) - 1] + \{[100\% \times 0.738 \times [\exp(n_1(et)) / \exp(n_1(b))] \times [\{[(-0.00000133 \times SUL_{et}) + 0.000692] \times \Delta SUL\} + \{[(-0.000238 \times ARO_{et}) + 0.0083632] \times \Delta ARO\} + \{[(0.000733 \times OLE_{et}) - 0.002774] \times \Delta OLE\}]\} + \{[100\% \times 0.262 \times [\exp(n_2(et)) / \exp(n_2(b))] \times [\{[(-0.0001599 \times ARO_{et}) + 0.007097] \times \Delta ARO\} + \{[(0.000732 \times OLE_{et}) - 0.00276] \times \Delta OLE\}]\}$

where

n_1, n_2=The equations defined in paragraphs (d)(1) (i) and (ii) of this section.

et=Collection of fuel parameters for the "edge target" fuel. These parameters are defined in paragraphs (d)(1)(iv) (C) and (D) of this section.

n_1(et)=The function n_1 evaluated with "edge target" fuel parameters, which are defined in paragraph (d)(1)(iv)(C) of this section.

n_2(et)=The function n_2 evaluated with "edge target" fuel parameters, which are defined in paragraph (d)(1)(iv)(C) of this section.

n_1(b)=The function n_1 evaluated with the appropriate baseline fuel parameters defined in paragraph (b)(2) of this section.

n_2(b)=The function n_2 evaluated with the appropriate baseline fuel parameters defined in paragraph (b)(2) of this section.

SUL_{et}=The value of SUL for the "edge target" fuel, as defined in paragraph (d)(1)(iv)(C) of this section.

ARO_{et}=The value of ARO for the "edge target" fuel, as defined in paragraph (d)(1)(iv)(C) of this section.

OLE_{et}=The value of OLE for the "edge target" fuel, as defined in paragraph (d)(1)(iv)(C) of this section.

(C) For both Phase I and Phase II, the "edge target" fuel is identical to the target fuel for all fuel parameters, with the following exceptions:

(1) If the sulfur level of the target fuel is less than 10 parts per million, then the value of SUL for the "edge target" fuel shall be set equal to 10 parts per million.

(2) If the sulfur level of the target fuel is greater than 450 parts per million, then the value of SUL for the "edge target" fuel shall be set equal to 450 parts per million.

(3) If the aromatics level of the target fuel is less than 18 volume percent, then the value of ARO for the "edge target" fuel shall be set equal to 18 volume percent.

(4) If the olefins level of the target fuel is greater than 19 volume percent, then the value of OLE for the "edge target" fuel shall be set equal to 19 volume percent.

(5) If the E300 level of the target fuel is greater than 95 volume percent, then the value of E300 for the "edge target" fuel shall be equal to 95 volume percent.

(6) If the sulfur level of the target fuel is less than 10 parts per million, then ΔSUL shall be set equal to (SUL − 10 parts per million).

(7) If the sulfur level of the target fuel is greater than 450 parts per million, then ΔSUL shall be set equal to (SUL − 450 parts per million).

(8) If the sulfur level of the target fuel is neither less than 10 parts per million nor greater than 450 parts per million, ΔSUL shall be set equal to zero.

(9) If the aromatics level of the target fuel is less than 18 volume percent and greater than 10 volume percent, then ΔARO shall be set equal to (ARO − 18 volume percent). If the aromatics level of the target fuel is less than 10 volume percent, then ΔARO shall be set equal to 8 volume percent.

(10) If the aromatics level of the target fuel is greater than or equal to 18 volume percent, then ΔARO shall be set equal to zero.

(11) If the olefins level of the target fuel is greater than 19 volume percent, then ΔOLE shall be set equal to (OLE − 19 volume percent).

(12) If the olefins level of the target fuel is less than or equal to 19 volume percent, then ΔOLE shall be set equal to zero.

(2) The winter NO_X emissions performance of gasolines shall be given by the equations presented in paragraph (d)(1) of this section with the RVP value set to 8.7 psi.

(3) The NO_X emissions performance of the target fuel in percentage terms from baseline levels shall be given by the following equations:

For Phase I:

Summer NO_X%=[100% × (NO_X − 0.660 g/mi)]/(0.660 g/mi)

Winter NO_X%=[100% × (NO_X − 0.750 g/mi)]/(0.750 g/mi)

For Phase II:

Summer NO_X%=[100% × (NO_X − 1.340 g/mi)]/(1.340 g/mi)

Winter NO_X%=[100% × (NO_X − 1.540 g/mi)]/(1.540 g/mi)

Summer NO_X%=Percentage change in NO_X emissions from summer baseline levels

Winter NO_X%=Percentage change in NO_X emissions from winter baseline levels

(e) *Toxics performance*—(1) *Summer toxics performance.* (i) Summer toxic emissions performance of gasolines in VOC Control Regions 1 and 2 shall be given by the following equations:

TOXICS1=EXHBZ + FORM + ACET + BUTA + POM + NEBZ1

TOXICS2=EXHBZ + FORM + ACET + BUTA + POM + NEBZ2

where

TOXICS1=Summer toxics performance in VOC Control Region 1 in terms of milligrams per mile.

TOXICS2=Summer toxics performance in VOC Control Region 2 in terms of milligrams per mile.

EXHBZ=Exhaust emissions of benzene in terms of milligrams per mile, as determined in paragraph (e)(4) of this section.

FORM=Emissions of formaldehyde in terms of milligrams per mile, as determined in paragraph (e)(5) of this section.

ACET=Emissions of acetaldehyde in terms of milligrams per mile, as determined in paragraph (e)(6) of this section.

BUTA=Emissions of 1,3-butadiene in terms of milligrams per mile, as determined in paragraph (e)(7) of this section.

POM=Polycyclic organic matter emissions in terms of milligrams per mile, as determined in paragraph (e)(8) of this section.

NEBZ1=Nonexhaust emissions of benzene in VOC Control Region 1 in milligrams per mile, as determined in paragraph (e)(9) of this section.

NEBZ2=Nonexhaust emissions of benzene in VOC Control Region 2 in milligrams per mile, as determined in paragraph (e)(10) of this section.

(ii) The percentage change in summer toxics performance in VOC Control Regions 1 and 2 shall be given by the following equations:

For Phase I:

TOXICS1%=[100% × (TOXICS1 − 48.61 mg/mi)]/(48.61 mg/mi)

TOXICS2%=[100% × (TOXICS2 − 47.59 mg/mi)]/(47.59 mg/mi)

For Phase II:

TOXICS1%=[100% × (TOXICS1 − 86.35 mg/mi)]/(86.35 mg/mi)

TOXICS2%=[100% × (TOXICS2 − 85.61 mg/mi)]/(85.61 mg/mi)

where

TOXICS1%=Percentage change in summer toxics emissions in VOC Control Region 1 from baseline levels.

TOXICS2%=Percentage change in summer toxics emissions in VOC Control Region 2 from baseline levels.

(2) *Winter toxics performance.* (i) Winter toxic emissions performance of gasolines in VOC Control Regions 1 and 2 shall be given by the following equation, evaluated with the RVP set at 8.7 psi:

TOXICW=[EXHBZ + FORM + ACET + BUTA + POM]

where

TOXICW=Winter toxics performance in VOC Control Regions 1 and 2 in terms of milligrams per mile.

EXHBZ=Exhaust emissions of benzene in terms of milligrams per mile, as determined in paragraph (e)(4) of this section.

FORM=Emissions of formaldehyde in terms of milligrams per mile, as

determined in paragraph (e)(5) of this section.

ACET=Emissions of acetaldehyde in terms of milligrams per mile, as determined in paragraph (e)(6) of this section.

BUTA=Emissions of 1,3-butadiene in terms of milligrams per mile, as determined in paragraph (e)(7) of this section.

POM=Polycyclic organic matter emissions in terms of milligrams per mile, as determined in paragraph (e)(8) of this section.

(ii) The percentage change in winter toxics performance in VOC Control Regions 1 and 2 shall be given by the following equation:

For Phase I:

TOXICW%=[100%×(TOXICW − 58.36 mg/mi)] / (58.36 mg/mi)

For Phase II:

TOXICW%=[100%×(TOXICW − 120.55 mg/mi)] / (120.55 mg/mi)

where

TOXICW%=Percentage change in winter toxics emissions in VOC Control Regions 1 and 2 from baseline levels.

(3) *Year-round toxics performance.* (i) Year-round toxics performance in VOC Control Regions 1 and 2 shall be given by the following equation for reformulated and Clean Air Act baseline gasolines:

TOXICY1=[(0.396×TOXICS1)+ (0.604×TOXICW)]

TOXICY2=[(0.396×TOXICS2)+ (0.604×TOXICW)]

where

TOXICY1=Year-round toxics performance in VOC Control Region 1 in terms of milligrams per mile.

TOXICS1=Summer toxics performance in VOC Control Region 1 in terms of milligrams per mile, as determined in paragraph (e)(1)(i) of this section.

TOXICY2=Year-round toxics performance in VOC Control Region 2 in terms of milligrams per mile.

TOXICS2=Summer toxics performance in VOC Control Region 2 in terms of milligrams per mile, as determined in paragraph (e)(1)(i) of this section.

TOXICW=Winter toxics performance in VOC Control Regions 1 and 2 in terms of milligrams per mile, as determined in paragraph (e)(2)(i) of this section.

(ii) The percentage change in year-round toxics performance in VOC Control Regions 1 and 2 shall be given by the following equations:

For Phase I:

TOXICY1%=[100%×(TOXICY1 − 54.50 mg/mi)] / (54.50 mg/mi)

TOXICY2%=[100%×(TOXICY2 − 54.09 mg/mi)] / (54.09 mg/mi)

For Phase II:

TOXICY1%=[100%×(TOXICY1 − 107.00 mg/mi)] / (107.00 mg/mi)

TOXICY2%=[100%×(TOXICY2 − 106.71 mg/mi)] / (106.71 mg/mi)

TOXICY1%=Percentage change in year-round toxics emissions in VOC Control Region 1 from baseline levels.

TOXICY2%=Percentage change in year-round toxics emissions in VOC Control Region 2 from baseline levels.

(4) Exhaust benzene emissions shall be given by the following equation, subject to paragragh (e)(4)(iii) of this section:

$$EXHBZ=BENZ(b)+(BENZ(b)\times Y_{BEN}(t)/100)$$

$$Y_{BEN}(t)=[(w_1\times N_b)+(w_2\times H_b)-1]\times 100$$

where

EXHBZ=Exhaust benzene emissions in milligrams/mile

$Y_{BEN}(t)$=Benzene performance of target fuel in terms of percentage change from baseline.

BENZ(b)=Baseline benzene emissions as defined in paragraph (b)(2) of this section for the appropriate phase and season.

$N_b=\exp b_1(t)/\exp b_1(b)$

$H_b=\exp b_2(t)/\exp b_2(b)$

w_1=Weighting factor for normal emitters as defined in paragraph (b)(1) of this section for the appropriate Phase.

w_2=Weighting factor for higher emitters as defined in paragraph (b)(1) of this section for the appropriate Phase.

$b_1(t)$=Normal emitter benzene equation, as defined in paragraph (e)(4)(i) of this section, evaluated using the target fuel's properties subject to paragraph (e)(4)(iii) of this section.

$b_2(t)$=Higher emitter benzene equation as defined in paragraph (e)(4)(ii) of this section, evaluated using the target fuel's properties subject to paragraph (e)(4)(iii) of this section.

$b_1(b)$=Normal emitter benzene equation as defined in paragraph (e)(4)(i) of this section, evaluated for the base fuel's properties.

$b_2(b)$=Higher emitter benzene equation, as defined in paragraph (e)(4)(ii) of this section, evaluated for the base fuel's properties.

(i) *Consolidated equation for normal emitters.*

b_1=(0.0006197×SUL)+ (−0.003376×E200)+ (0.0265500×ARO)+ (0.2223900×BEN)

(ii) *Equation for higher emitters.*

b_2=(−0.096047×OXY)+ (0.0003370×SUL)+ (0.0112510×E300)+ (0.0118820×ARO)+ (0.2223180×BEN)

(iii) If the aromatics value of the target fuel is less than 10 volume percent, then an aromatics value of 10 volume percent shall be used when evaluating the equations given in paragraphs (e)(4) (i) and (ii) of this section. If the E300 value of the target fuel is greater than 95 volume percent, then E300 value of 95 volume percent shall be used when evaluating the equations given in paragraphs (e)(4) (i) and (ii) of this section.

(5) Formaldehyde mass emissions shall be given by the following equation, subject to paragraphs (e)(5) (iii) and (iv) of this section:

$$FORM=FORM(b)+(FORM(b)\times Y_{FORM}(t)/100)$$

$$Y_{FORM}(t)=[(w_1\times N_f)+(w_2\times H_f)-1]\times 100$$

where

FORM=Exhaust formaldehyde emissions in terms of milligrams/mile.

$Y_{FORM}(t)$=Formaldehyde performance of target fuel in terms of percentage change from baseline.

FORM(b)=Baseline formaldehyde emissions as defined in paragraph (b)(2) of this section for the appropriate Phase and season.

$N_f=\exp f_1(t)/\exp f_1(b)$

$H_f=\exp f_2(t)/\exp f_2(b)$

w_1=Weighting factor for normal emitters as defined in paragraph (b)(1) of this section for the appropriate Phase.

w_2=Weighting factor for higher emitters as defined in paragraph (b)(1) of this section for the appropriate Phase.

$f_1(t)$=Normal emitter formaldehyde equation as defined in paragraph (e)(5)(i) of this section, evaluated using the target fuel's properties subject to paragraphs (e)(5) (iii) and (iv) of this section.

$f_2(t)$=Higher emitter formaldehyde equation as defined in paragraph (e)(5)(ii) of this section, evaluated using the target fuel's properties subject to paragraphs (e)(5) (iii) and (iv) of this section.

$f_1(b)$=Normal emitter formaldehyde equation as defined in paragraph (e)(5)(i) of this section, evaluated for the base fuel's properties.

$f_2(b)$=Higher emitter formaldehyde equation as defined in paragraph (e)(5)(ii) of this section, evaluated for the base fuel's properties.

(i) *Consolidated equation for normal emitters.*

$f_1=(-0.010226\times E300)+(-0.007166\times ARO)+(0.0462131\times MTB)$

(ii) *Equation for higher emitters.*

$f_2=(-0.010226\times E300)+(-0.007166\times ARO)+(-0.031352\times OLE)+(0.0462131\times MTB)$

(iii) If the aromatics value of the target fuel is less than 10 volume percent, then an aromatics value of 10 volume percent shall be used when evaluating the equations given in paragraphs (e)(5) (i) and (ii) of this section. If the E300 value of the target fuel is greater than 95 volume percent, then an E300 value of 95 volume percent shall be used when evaluating the equations given in paragraphs (e)(5) (i) and (ii) of this section.

(iv) When calculating formaldehyde emissions and emissions performance, oxygen in the form of alcohols which are more complex or have higher molecular weights than ethanol shall be evaluated as if it were in the form of ethanol. Oxygen in the form of methyl ethers other than TAME and MTBE shall be evaluated as if it were in the form of MTBE. Oxygen in the form of ethyl ethers other than ETBE shall be evaluated as if it were in the form of ETBE. Oxygen in the form of non-methyl, non-ethyl ethers shall be evaluated as if it were in the form of ETBE.

(6) Acetaldehyde mass emissions shall be given by the following equation, subject to paragraphs (e)(6) (iii) and (iv) of this section:

$ACET=ACET(b)+(ACET(b)\times Y_{ACET}(t)/100)$

$Y_{ACET}(t)=[(w_1\times N_a)+(w_2\times H_a)-1]\times 100$

where

ACET=Exhaust acetaldehyde emissions in terms of milligrams/mile

$Y_{ACET}(t)$=Acetaldehyde performance of target fuel in terms of percentage change from baseline

ACET(b)=Baseline acetaldehyde emissions as defined in paragraph (b)(2) of this section for the appropriate phase and season

$N_a=\exp a_1(t)/\exp a_1(b)$

$H_a=\exp a_2(t)/\exp a_2(b)$

w_1=Weighting factor for normal emitters as defined in paragraph (b)(1) of this section for the appropriate phase

w_2=Weighting factor for higher emitters as defined in paragraph (b)(1) of this section for the appropriate phase

$a_1(t)$=Normal emitter acetaldehyde equation as defined in paragraph (e)(6)(i) of this section, evaluated using the target fuel's properties, subject to paragraphs (e)(6) (iii) and (iv) of this section

$a_2(t)$=Higher emitter acetaldehyde equation as defined in paragraph (e)(6)(ii) of this section, evaluated using the target fuel's properties, subject to paragraphs (e)(6) (iii) and (iv) of this section

$a_1(b)$=Normal emitter acetaldehyde equation as defined in paragraph (e)(6)(i) of this section, evaluated for the base fuel's properties

$f_2(b)$=Higher emitter acetaldehyde equation as defined in paragraph (e)(6)(ii) of this section, evaluated for the base fuel's properties

(i) *Consolidated equation for normal emitters.*

$a_1=(0.0002631\times SUL)+(0.0397860\times RVP)+(-0.012172\times E300)+(-0.005525\times ARO)+(-0.009594\times MTB)+(0.3165800\times ETB)+(0.2492500\times ETH)$

(ii) *Equation for higher emitters.*

$a_2=(0.0002627\times SUL)+(-0.012157\times E300)+(-0.005548\times ARO)+(-0.055980\times MTB)+(0.3164665\times ETB)+(0.2493259\times ETH)$

(iii) If the aromatics value of the target fuel is less than 10 volume percent, then an aromatics value of 10 volume percent shall be used when evaluating the equations given in paragraphs (e)(6) (i) and (ii) of this section. If the E300 value of the target fuel is greater than 95 volume percent, then an E300 value of 95 volume percent shall be used when evaluating the equations given in paragraphs (e)(6) (i) and (ii) of this section.

(iv) When calculating acetaldehyde emissions and emissions performance, oxygen in the form of alcohols which are more complex or have higher molecular weights than ethanol shall be evaluated as if it were in the form of ethanol. Oxygen in the form of methyl ethers other than TAME and MTBE shall be evaluated as if it were in the form of MTBE. Oxygen in the form of ethyl ethers other than ETBE shall be evaluated as if it were in the form of ETBE. Oxygen in the form of non-methyl, non-ethyl ethers shall be evaluated as if it were in the form of ETBE.

(7) 1,3-butadiene mass emissions shall be given by the following equations, subject to paragraph (e)(7)(iii) of this section:

$BUTA=BUTA(b)+(BUTA(b)\times Y_{BUTA}(t)/100)$

$Y_{BUTA}(t)=[(w_1\times N_d)+(w_2\times H_d)-1]\times 100$

where

BUTA=Exhaust 1,3-butadiene emissions in terms of milligrams/mile

$Y_{BUTA}(t)$=1,3-butadiene performance of target fuel in terms of percentage change from baseline

BUTA(b)=Baseline 1,3-butadiene emissions as defined in paragraph (b)(2) of this section for the appropriate phase and season

$N_d=\exp d_1(t)/\exp d_1(b)$

$H_d=\exp d_2(t)/\exp d_2(b)$

w_1=Weighting factor for normal emitters as defined in paragraph (b)(1) of this section for the appropriate phase

w_2=Weighting factor for higher emitters as defined in paragraph (b)(1) of this section for the appropriate Phase.

$d_1(t)$=Normal emitter 1,3-butadiene equation as defined in paragraph (e)(7)(i) of this section, evaluated using the target fuel's properties, subject to paragraph (e)(7)(iii) of this section.

$d_2(t)$=Higher emitter 1,3-butadiene equation as defined in paragraph (e)(7)(ii) of this section, evaluated using the target fuel's properties, subject to paragraph (e)(7)(iii) of this section.

$d_1(b)$=Normal emitter 1,3-butadiene equation as defined in paragraph (e)(7)(i) of this section, evaluated for the base fuel's properties.

$d_2(b)$=Higher emitter 1,3-butadiene equation as defined in paragraph (e)(7)(ii) of this section, evaluated for the base fuel's properties.

(i) *Consolidated equation for normal emitters.*

$d_1=(0.0001552\times SUL)+(-0.007253\times E200)+(-0.014866\times E300)+(-0.004005\times ARO)+(0.0282350\times OLE)$

(ii) *Equation for higher emitters.*

$d_2=(-0.060771\times OXY)+(-0.007311\times E200)+(-0.008058\times E300)+(-0.004005\times ARO)+(0.0436960\times OLE)$

(iii) If the aromatics value of the target fuel is less than 10 volume percent, then an aromatics value of 10 volume percent shall be used when evaluating the equations given in paragraphs (e)(7) (i) and (ii) of this section. If the E300 value of the target fuel is greater than 95 volume percent, then an E300 value of 95 volume percent shall be used when evaluating the equations given in paragraphs (e)(7) (i) and (ii) of this section.

(8) Polycyclic organic matter mass emissions shall be given by the following equation:

POM=0.003355×VOCE

POM=Polycyclic organic matter emissions in terms of milligrams per mile

VOCE=Non-methane, non-ethane exhaust emissions of volatile organic compounds in grams per mile.

(9) Nonexhaust benzene emissions in VOC Control Region 1 shall be given by the following equations for both Phase I and Phase II:

NEBZ1=DIBZ1+HSBZ1+RLBZ1+RFBZ1

HSBZ1=10 × BEN × HSVOC1 × [(−0.0342 × MTB)+(−0.080274 × RVP)+1.4448]

DIBZ1=10 × BEN × DIVOC1 × [(−0.0290 × MTB)+(−0.080274 × RVP)+1.3758]

RLBZ1=10 × BEN × RLVOC1 × [(−0.0342 × MTB)+(−0.080274 × RVP)+1.4448]

RFBZ1=10 × BEN × RFVOC1 × [(−0.0296 × MTB)+(−0.081507 × RVP)+1.3972]

where

NEBZ1=Nonexhaust emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile.

DIBZ1=Diurnal emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile.

HSBZ1=Hot soak emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile.

RLBZ1=Running loss emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile.

RFBZ1=Refueling emissions of volatile organic compounds in VOC Control Region 1 in grams per mile.

VOCDI1=Diurnal emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile, as determined in paragraph (c)(3) of this section.

VOCHS1=Hot soak emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile, as determined in paragraph (c)(3) of this section.

VOCRL1=Running loss emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile, as determined in paragraph (c)(3) of this section.

VOCRF1=Refueling emissions of volatile organic compounds in VOC Control Region 1 in milligrams per mile, as determined in paragraph (c)(3) of this section.

(10) Nonexhaust benzene emissions in VOC Control Region 2 shall be given by the following equations for both Phase I and Phase II:

NEBZ2=DIBZ2+HSBZ2+RLBZ2+RFBZ2

HSBZ2=10 ×BEN × HSVOC2 × [(−0.0342 × MTB)+(−0.080274 × RVP)+1.4448]

DIBZ2=10 × BEN × DIVOC2 × [(−0.0290 × MTB)+(−0.080274 × RVP)+1.3758]

RLBZ2=10 × BEN × RLVOC2 × [(−0.0342 × MTB)+(−0.080274 × RVP)+1.4448]

RFBZ2=10 × BEN × RFVOC2 × [(−0.0296 × MTB)+(−0.081507 × RVP)+1.3972]

where

NEBZ2=Nonexhaust emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile.

DIBZ2=Diurnal emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile.

HSBZ2=Hot soak emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile.

RLBZ2=Running loss emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile.

RFBZ2=Refueling emissions of volatile organic compounds in VOC Control Region 2 in grams per mile.

VOCDI2=Diurnal emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile, as determined in paragraph (c)(4) of this section.

VOCHS2=Hot soak emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile, as determined in paragraph (c)(4) of this section.

VOCRL2=Running loss emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile, as determined in paragraph (c)(4) of this section.

VOCRF2=Refueling emissions of volatile organic compounds in VOC Control Region 2 in milligrams per mile, as determined in paragraph (c)(4) of this section.

(f) *Limits of the model.* (1) The equations described in paragraphs (a), (c), and (d) of this section shall be valid only for fuels with fuel properties that fall in the following ranges for reformulated gasolines and conventional gasolines:

(i) For reformulated gasolines:

Fuel property	Acceptable range
Oxygen	0.00–3.70 weight percent.
Sulfur	0.0–500.0 parts per million by weight.
RVP	6.4–10.0 pounds per square inch.
E200	30.0–70.0 volume percent.
E300	70.0–100.0 volume percent.
Aromatics	0.0–50.0 volume percent.
Olefins	0.00–25.0 volume percent.
Benzene	0.0–2.0 volume percent.

(ii) For conventional gasolines:

Fuel property	Acceptable range
Oxygen	0.00–3.70 weight percent.
Sulfur	0.0–1000.0 parts per million by weight.
RVP	6.4–11.0 pounds per square inch.
E200	30.0–70.0 volume percent.
E300	70.0–100.0 volume percent.
Aromatics	00.0–55.0 volume percent.
Olefins	0.00–30.0 volume percent.
Benzene	0.0–4.9 volume percent.

(2) Fuels with one or more properties that do not fall within the ranges described in above shall not be certified or evaluated for their emissions performance using the complex emissions model described in paragraphs (c), (d), and (e) of this section.

§ 80.46 Measurement of reformulated gasoline fuel parameters.

(a) *Sulfur.* Sulfur content shall be determined using American Society for Testing and Materials (ASTM) standard method D–2622–92, entitled "Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry."

(b) *Olefins.* Olefin content shall be determined using ASTM standard method D–1319–93, entitled "Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption."

(c) *Reid vapor pressure (RVP).* Reid Vapor Pressure (RVP) shall be determined using the procedure described in 40 CFR part 80, appendix E, Method 3.

(d) *Distillation.* (1) Distillation parameters shall be determined using ASTM standard method D–86–90, entitled "Standard Test Method for Distillation of Petroleum Products"; except that

(2) The figures for repeatability and reproducibility given in degrees Fahrenheit in Table 9 in the ASTM method are incorrect, and shall not be used.

(e) *Benzene.* (1) Benzene content shall be determined using ASTM standard method D–3606–92, entitled "Standard Test Method for Determination of Benzene and Toluene in Finished Motor and Aviation Gasoline by Gas Chromatography"; except that

(2) Instrument parameters must be adjusted to ensure complete resolution of the benzene, ethanol and methanol

peaks because ethanol and methanol may cause interference with ASTM standard method D–3606–92 when present.

(f) *Aromatics.* Aromatics content shall be determined by gas chromatography identifying and quantifying each aromatic compound as set forth in paragraph (f)(1) of this section.

(1) (i) *Detector.* The detector is an atomic mass spectrometer detector (MSD). The detector may be set for either selective ion or scan mode.

(ii) *Method A.* (A) The initial study of this method used a three component internal standard using the following calculations.

(B) The calibration points are constructed by calculating an amount ratio and response ratio for each level of a particular peak in the instrument's calibration table.

(C) The amount ratio is the amount of the compound divided by the amount of the internal standard for a given level.

(D) The response ratio is the response of the compound divided by the response of the internal standard at this level.

(E) The equation for the curve through the calibration points is calculated using the type fit and origin handling specified in the instrument's calibration table. In the initial study the fit was a second degree polynomial including a forced zero for the origin.

(F) The response of the compound in a sample is divided by the response of the internal standard to provide a response ratio for that compound in the sample.

(G) A corrected amount ratio for the unknown is calculated using the curve fit equation determined in paragragh (f)(1)(ii)(E) of this section.

(H) The amount of the aromatic compound is equal to the corrected amount ratio times the Amount of Internal Standard.

(I) The total aromatics in the sample is the sum of the amounts of the individual aromatic compounds in the sample.

(J) An internal standard solution can be made with the following compounds at the listed concentrations in volume percent. Also listed is the Chemical Abstracts Service Registry Number (CAS), atomic mass unit (amu) on which the detector must be set at the corresponding retention time if used in the selective ion mode, retention times in minutes, and boiling point in °C. (Other, similar, boiling point materials can be used which are not found in gasoline.) Retention times are approximate and apply only to a 60 meter capillary column used in the initial study. Other columns and retention times can be used.

(1) 4-methyl-2-pentanone, 50 vol% [108–10–1], 43.0 amu, 22.8 min., bp 118;

(2) benzyl alcohol, 25 vol%, [100–51–6], 108 amu, 61.7 min., bp 205;

(3) 1-octanol, [111–87–5], 25 vol%, 56.0 amu, 76.6 min., bp 196;

(K) At least two calibration mixtures which bracket the measured total aromatics concentration must be made with a representative mixture of aromatic compounds. The materials and concentrations used in the highest concentration calibration level in the initial study for this method are listed in this paragraph (f)(1)(ii)(K). Also listed is the Chemical Abstracts Service Registry Number (CAS), atomic mass unit (amu) on which the detector must be set for the corresponding retention time if used in the selective ion mode, retention times in minutes, and in some cases boiling point in °C. The standards are made in 2,2,4-trimethylpentane (iso-octane), [540–84–1]. Other aromatic compounds, and retention times may be acceptable as long as the aromatic values produced meet the criteria found in the quality assurance section for the aromatic methods.

Compound	Concentrations vol %	CAS No.	AMU	Retention time, min.	Boiling point, °C
Benzene	2.25	71–43–2	78	18.9	80.1
Methylbenzene	2.5	108–88–3	91	25.5	111
Ethylbenzene	2.25	100–41–4	91	34.1	136.2
1,3–Dimethylbenzene 1,4–Dimethylbenzene	5	108–38–3	91	35.1	136–138
1,2-dimethylbenzene	10	95–47–6	91	38.1	144
(1-methylethyl)-benzene	2.25	620–14–4	105	42.8	.....
Propylbenzene	2.25	103–65–1	91	48.0	159.2
1-ethyl-2-methylbenzene	2.25	611–14–3	105	49.3	165
1,2,4-trimethylbenzene	2.25	95–63–6	105	50.9	169
1-ethyl-2-methylbenzene	2.25	611–14–4	105	53.3	165
1,3-diethylbenzene	2.25	141–93–5	119	56.6	181
Butylbenzene	2.25	104–51–8	91	60.7	183
1-methyl-2-(1-methylethyl)-benzene	2.25	933–98–2	119	63.9	.....
1-ethyl-3-methylbenzene	2.25	620–14–4	105	64.2	.....
1-methyl-4-iso-propylbenzene	2.25	99–87–6	119	69.0	177
2-ethyl-1,3-dimethylbenzene	2.25	2870–04–4	119	73.0	.....
2-methylpropylbenzene	2.25	538–93–2	91	75.0	.....
1-methyl-3-(1-methylethyl)-benzene	2.25	535–77–3	119	75.6	.....
1-methyl-3-propylbenzene	2.25	1074–43–7	105	78.9	.....
2-ethyl-1,4-dimethylbenzene	2.25	1758–88–9	119	83.2	187
1-methyl-4-(methylethyl)-benzene	2.25	934–80–9	119	83.4	.....
1-ethyl-2,4-dimethylbenzene	2.25	874–41–9	119	85.7	.....
(1,1-dimethylethy)-3-methylbenzene	2.25	27138-21–2	133	87.3	.....
1-ethyl-2,3-dimethylbenzene	2.25	933–98–2	119	88.7	.....
1-(1,1-dimethylethyl)-3-methylbenzene	2.25	175–38–3	133	89.4	.....
1-ethyl-1,4-dimethylbenzene	2.25	874–41–9	119	94.9	.....
2-ethyl-1,3-dimethylbenzene	2.25	2870–04–4	119	100.9	.....
1-ethyl-3,5-dimethylbenzene	2.25	934–74–7	119	102.5	.....
1–2,4,5-tetramethylbenzene	2.25	95–93–2	119	115.9	197
Pentylbenzene	2.25	538–68–1	91	116	.....
Naphthalene	2.25	191–20–3	128	118.4	198
3,5 dimethyl-iso-butylbenzene	2.25	98–19–1	147	118.5	205.5

(iii) *Method B.* (A) Use a percent normalized format to determine the concentration of the individual compounds. No internal standard is used in this method.

(B) The calculation of the aromatic compounds is done by developing calibration curves for each compound using the type fit and origin handling specified in the instrument's calibration table.

(C) The amount of compound in a sample (the corrected amount) is calculated using the equation determined in paragraph (f)(1)(ii) of this section for that compound.

(D) The percent normalized amount of a compound is calculated using the following equation:

$$A_n = 100 \times \left(\frac{A_c}{A_s} \right)$$

where:

A_n = percent normalized amount of a compound

A_c = corrected amount of the compound

A_s = sum of all the corrected amounts for all identified compounds in the sample

(E) The total aromatics is the sum of all the percent normalized aromatic amounts in the sample.

(F) This method allows quantification of non-aromatic compounds in the sample. However, correct quantification can only be achieved if the instrument's calibration table can identify the compounds that are responsible for at least 95 volume percent of the sample and meets the following quality control criteria.

(2) Quality assurance. (i) The performance standards will be from repeated measurement of the calibration mixture, standard reference material, or process control gasoline. The uncertainty in the measured aromatics percentages in the standards must be less than 2.0 volume percent in the fuel at a 95% confidence level.

(ii) If the bias of the standard mean is greater than 2% of the theoretical value, then the standard measurement and measurements of all samples measured subsequent to the previous standard measurement that met the performance criteria must be repeated after re-calibrating the instrument.

(iii) Replicate samples must be within 3.0 volume percent of the previous sample or within 2.0 volume percent of the mean at the 95% confidence level.

(3) Alternative test method. (i) Prior to January 1, 1997, any refiner or importer may determine aromatics content using ASTM standard method D–1319–93, entitled "Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption," for purposes of meeting any testing requirement involving aromatics content; provided that

(ii) The refiner or importer test result is correlated with the method specified in paragraph (f)(1) of this section.

(g) *Oxygen and oxygenate content analysis.* Oxygen and oxygenate content shall be determined by the gas chromatographic procedure using an oxygenate flame ionization detector (GC-OFID) as set out in paragraphs (g)(1) through (8) of this section.

(1) *Introduction; scope of application.* (i) The following single-column, direct-injection gas chromatographic procedure is a technique for quantifying the oxygenate content of gasoline.

(ii) This method covers the quantitative determination of the oxygenate content of gasoline through the use of an oxygenate flame ionization detector (OFID). It is applicable to individual organic oxygenated compounds (up to 20 mass percent each) in gasoline having a final boiling point not greater than 220 °C. Samples above this level should be diluted to fall within the specified range.

(iii) The total concentration of oxygen in the gasoline, due to oxygenated components, may also be determined with this method by summation of all peak areas except for dissolved oxygen, water, and the internal standard. Sensitivities to each component oxygenate must be incorporated in the calculation.

(iv) All oxygenated gasoline components (alcohols, ethers, etc.) may be assessed by this method.

(v) The total mass percent of oxygen in the gasoline due to oxygenated components also may be determined with this method by summing all peak areas except for dissolved oxygen, water, and the internal standard.

(vi) Where trade names or specific products are noted in the method, equivalent apparatus and chemical reagents may be used. Mention of trade names or specific products is for the assistance of the user and does not constitute endorsement by the U.S. Environmental Protection Agency.

(2) *Summary of method.* A sample of gasoline is spiked to introduce an internal standard, mixed, and injected into a gas chromatograph (GC) equipped with an OFID. After chromatographic resolution the sample components enter a cracker reactor in which they are stoichiometrically converted to carbon monoxide (in the case of oxygenates), elemental carbon, and hydrogen. The carbon monoxide then enters a methanizer reactor for conversion to water and methane. Finally, the methane generated is determined by a flame ionization detector (FID).

(3) *Sample handling and preservation.* (i) Samples shall be collected and stored in containers which will protect them from changes in the oxygenated component contents of the gasoline, such as loss of volatile fractions of the gasoline by evaporation.

(ii) If samples have been refrigerated they shall be brought to room temperature prior to analysis.

(iii) Gasoline is extremely flammable and should be handled cautiously and with adequate ventilation. The vapors are harmful if inhaled and prolonged breathing of vapors should be avoided. Skin contact should be minimized.

(4) *Apparatus.* (i) A GC equipped with an oxygenate flame ionization detector.

(ii) An autosampler for the GC is highly recommended.

(iii) A 60-m length, 0.25-mm ID, 1.0-μm film thickness, nonpolar capillary GC column (J&W DB–1 or equivalent) is recommended.

(iv) An integrator or other acceptable system to collect and process the GC signal.

(v) A positive displacement pipet (200 μL) for adding the internal standard.

(5) *Reagents and materials.* Gasoline and many of the oxygenate additives are extremely flammable and may be toxic over prolonged exposure. Methanol is particularly hazardous. Persons performing this procedure must be familiar with the chemicals involved and all precautions applicable to each.

(i) Reagent grade oxygenates for internal standards and for preparation of standard solutions.

(ii) Supply of oxygenate-free gasoline for blank assessments and for preparation of standard solutions.

(iii) Calibration standard solutions containing known quantities of suspected oxygenates in gasoline.

(iv) Calibration check standard solutions prepared in the same manner as the calibration standards.

(v) Reference standard solutions containing known quantities of suspected oxygenates in gasoline.

(vi) Glass standard and test sample containers (between 5 and 100 Ml capacity) fitted with a self-sealing polytetrafluoroethlene (PTFE) faced rubber septum crimp-on or screw-down sealing cap for preparation of standards and samples.

(6) *Calibration.*—(i)(A) Calibration standards of reagent-grade or better oxygenates (such as methanol, absolute ethanol, methyl t-butyl ether (MTBE), di-i-propyl ether (DIPE), ethyl t-butyl ether (ETBE), and t-amyl methyl ether (TAME)) are to be prepared

gravimetrically by blending with gasoline that has been previously determined by GC/OFID to be free of oxygenates. Newly acquired stocks of reagent grade oxygenates shall be analyzed for contamination by GC/FID and GC/OFID before use.

(B) Required calibration standards (percent by volume in gasoline):

Oxygenate	Range (percent)	Number of standards (minimum)
Methanol	0.25–12.00	5
Ethanol	0.25–12.00	5
t-Butanol	0.25–12.00	5
MTBE	0.25–15.00	5

(ii) Take a glass sample container and its PTFE faced rubber septum sealing cap. Transfer a quantity of an oxygenate to the sample container and record the mass of the oxygenate to the nearest 0.1 mg. Repeat this process for any additional oxygenates of interest except the internal standard. Add oxygenate-free gasoline to dilute the oxygenates to the desired concentration. Record the mass of gasoline added to the nearest 0.1 mg, and determine and label the standard according to the mass percent quantities of each oxygenate added. These standards are not to exceed 20 mass percent for any individual pure component due to potential hydrocarbon breakthrough and/or loss of calibration linearity.

(iii) Inject a quantity of an internal standard (such as 2-butanol) and weigh the contents again. Record the difference in masses as the mass of internal standard to the nearest 0.1 mg. The mass of the internal standard shall amount to between 2 and 6 percent of the mass of the test sample (standard). The addition of an internal standard reduces errors caused by variations in injection volumes.

(iv) Ensure that the prepared standard is thoroughly mixed and transfer approximately 2 Ml of the solution to a vial compatible with the autosampler if such equipment is used.

(v) At least five concentrations of each of the expected oxygenates should be prepared. The standards should be as equally spaced as possible within the range and may contain more than one oxygenate. A blank for zero concentration assessments is also to be included. Additional standards should be prepared for other oxygenates of concern.

(vi) Based on the recommended chromatographic operating conditions specified in paragraph (g)(7)(i) of this section, determine the retention time of each oxygenate component by analyzing dilute aliquots either separately or in known mixtures. Reference should be made to the Chemical Abstracts Service (CAS) registry number of each of the analytes for proper identification. Approximate retention times for selected oxygenates under these conditions are as follows:

Oxygenate	CAS	Retention time (minutes)
Dissolved oxygen	7782–44–7	5.50
Water	7732–18–5	7.20
Methanol	67–56–1	9.10
Ethanol	64–17–5	12.60
Propanone	67–64–1	15.00
2–Propanol	67–63–0	15.70
t-Butanol	75–65–0	18.00
n-Propanol	71–23–8	21.10
MTBE	1634–04–4	23.80
2–Butanol	15892–23–6	26.30
i-Butanol	78–83–1	30.30
ETBE	637–92–3	31.10
n-Butanol	71–36–3	33.50
TAME	994–05–8	35.30
i-Pentanol	137–32–6	38.10

(vii) By GC/OFID analysis, determine the peak area of each oxygenate and of the internal standard.

(viii) Obtain a calibration curve by performing a least-squares fit of the relative area response factors of the oxygenate standards to their relative mass response factors as follows:

$R_{ao}=b_oR_{mo}+b_1(R_{mo})^2$

where:

R_{ao} = relative area response factor of the oxygenate, A_o/A_i

R_{mo} = relative mass response factor of the oxygenate, Mo/M_i

A_o = area of the oxygenate peak

A_i = area of the internal standard peak

M_o = mass of the oxygenate added to the calibration standard

M_i = mass of internal standard added to the calibration standard

b_0 = linear regression coefficient

b_1 = quadratic regression coefficient

(7) *Procedure.* (i) GC operating conditions:

(A) Oxygenate-free helium carrier gas: 1.1 Ml/min (2 bar), 22.7 cm/sec at 115 °C;

(B) Carrier gas split ratio: 1:100;

(C) Zero air FID fuel: 370 Ml/min (2 bar);

(D) Oxygenate free hydrogen FID fuel: 15 Ml/min (2 bar);

(E) Injector temperature: 250 °C;

(F) Injection volume: 0.5 µL;

(G) Cracker reactor temperature: sufficiently high enough temperature to ensure reduction of all hydrocarbons to the elemental states (i.e., $C_xH_{2x} -> C + H_2$, etc.);

(H) FID temperature: 400 °C; and

(I) Oven temperature program: 40 °C for 6 min, followed by a temperature increase of 5 °C/min to 50 °C, hold at 50 °C for 5 min, followed by a temperature increase of 25 °C/min to 175 °C, and hold at 175 °C for 2 min.

(ii) Prior to analysis of any samples, inject a sample of oxygenate-free gasoline into the GC to test for hydrocarbon breakthrough overloading the cracker reactor. If breakthrough occurs, the OFID is not operating effectively and must be corrected before samples can be analyzed.

(iii) Prepare gasoline test samples for analysis as follows:

(A) Tare a glass sample container and its PTFE faced rubber septum sealing cap. Transfer a quantity of the gasoline sample to the sample container and record the mass of the transferred sample to the nearest 0.1 mg.

(B) Inject a quantity of the same internal standard (such as 2-butanol) used in generating the standards and weigh the contents again. Record the difference in masses as the mass of internal standard to the nearest 0.1 mg. The mass of the internal standard shall amount to between 2 and 6 percent of the mass of the test sample (standard). The addition of an internal standard reduces errors caused by variations in injection volumes.

(C) Ensure that this test sample (gasoline plus internal standard) is thoroughly mixed and transfer approximately 2 mL of the solution to a vial compatible with the autosampler if such equipment is used.

(iv) After GC/OFID analysis, identify the oxygenates in the sample based on retention times, determine the peak area of each oxygenate and of the internal standard, and calculate the relative area response factor for each oxygenate.

(v) Monitor the peak area of the internal standard. A larger than expected peak area for the internal standard when analyzing a test sample may indicate that this oxygenate is present in the original sample. Prepare a new aliquot of the sample without addition of the oxygenate internal standard. If the presence of the oxygenate previously used as the internal standard can be detected, then either:

(A) The concentration of this oxygenate must be assessed by the method of standard additions; or

(B) An alternative internal standard, based on an oxygenate that is not present in the original sample, must be utilized with new calibration curves.

(vi) Calculate the relative mass response factor (R_{mo}) for each oxygenate based on the relative area response

factor (R_{ao}) and the calibration equation in paragraph (g)(6)(viii) of this section.

(vii) Calculate the mass percent of the oxygenate in the test sample according to the following equation:

$$M_o\% = \frac{R_{mo} M_i (100\%)}{M_s}$$

where:

M_o% = mass percent of the oxygenate in the test sample

M_s = mass of sample to which internal standard is added

(viii) If the mass percent exceeds the calibrated range, gravimetrically dilute a portion of the original sample to a concentration within the calibration range and analyze this sample starting with paragraph (g)(7)(iii) of this section.

(ix) Report the total weight percent oxygen as follows:

(A) Subtract the peak areas due to dissolved oxygen, water, and the internal standard from the total summed peak areas of the chromatogram.

(B) Assume the total summed peak area solely due to one of the oxygenates that the instrument is calibrated for and determine the total mass percent as that oxygenate based on paragraph (g)(7)(vii) of this section. For simplicity, chose an oxygenate having one oxygen atom per molecule.

(C) Multiply this concentration by the molar mass of oxygen and divide by the molar mass of the chosen oxygenate to determine the mass percent oxygen in the sample. For example, if the total peak area is based on MTBE, multiply by 16.00 (the molar mass of atomic oxygen) and divide by 88.15 (the molar mass of MTBE).

(x) Sufficient sample should be retained to permit reanalysis.

(8) *Quality control procedures and accuracy.* (i) The laboratory shall routinely monitor the repeatability (precision) of its analyses. The recommendations are:

(A) The preparation and analysis of laboratory duplicates at a rate of one per analysis batch or at least one per ten samples, whichever is more frequent.

(B) Laboratory duplicates shall be carried through all sample preparation steps independently.

(C) The range (R) for duplicate samples should be less than the following limits:

Oxygenate	Concentration mass percent	Upper limit for range mass percent
Methanol	0.27–1.07	0.010+0.043C
Methanol	1.07–12.73	0.053C
Ethanol	1.01–12.70	0.053C
MTBE	0.25–15.00	0.069+0.029C
DIPE	0.98–17.70	0.048C
ETBE	1.00–18.04	0.074C
TAME	1.04–18.59	0.060C

where:

$C=(C_o+C_d)/2$

C_o=concentration of the original sample

C_d=concentration of the duplicate sample

R=Range, $|C_o-C_d|$

(D) If the limits in paragraph (g)(8)(i)(C) of this section are exceeded, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last duplicate analysis confirmed to be within the compliance specifications must be repeated. The specification limits for the range and relative range of duplicate analyses are minimum performance requirements. The performance of individual laboratories may indeed be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process.

(E) *(1)* For reference purposes, a single laboratory study of repeatability was conducted on approximately 27 replicates at each of five concentrations for each oxygenate. The variation of MTBE analyses as measured by standard deviation was very linear with respect to concentration. Where concentration is expressed as mass percent, over the concentration range of 0.25 to 15.0 mass percent this relationship is described by the equation:

standard deviation=0.00784×C+0.0187

(2) The other oxygenates of interest, methanol, ethanol, DIPE, ETBE, and TAME, had consistent coefficients of variation at one mass percent and above:

Oxygenate	Concentration mass percent	Coefficient of variation percent of point
Methanol	1.07–12.73	1.43
Ethanol	1.01–12.70	1.43
DIPE	0.98–17.70	1.29
ETBE	1.00–18.04	2.00
TAME	1.04–18.59	1.62

(3) The relationship of standard deviation and concentration for methanol between 0.27 and 1.07 mass percent was very linear and is described by the equation:

standard deviation=0.0118×C+0.0027

(4) Based on these relationships, repeatability for the selected oxygenates at 2.0 and 2.7 mass percent oxygen were determined to be as follows, where repeatability is defined as the half width of the 95 percent confidence interval (i.e., 1.96 standard deviations) for a single analysis at the stated concentration:

Oxygenate	Concentration			Repeatability mass percent
	Mass percent oxygen	Mass percent oxygenate	Volume percent oxygenate	
Methanol	2.0	4.00	3.75	0.11
Ethanol	2.0	5.75	5.41	0.16
MTBE	2.00	11.00	11.00	0.21
DIPE	2.0	12.77	13.00	0.32
ETBE	2.0	12.77	12.74	0.50

Oxygenate	Concentration			Repeatability mass percent
	Mass percent oxygen	Mass percent oxygenate	Volume percent oxygenate	
TAME	2.0	12.77	12.33	0.41
Methanol	2.7	5.40	5.07	0.15
Ethanol	2.7	7.76	7.31	0.21
MTBE	2.7	14.88	14.88	0.26
DIPE	2.7	17.24	17.53	0.43
ETBE	2.7	17.24	17.20	0.67
TAME	2.7	17.24	16.68	0.55

(ii) The laboratory shall routinely monitor the accuracy of its analyses. The recommendations are:

(A) Calibration check standards and calibration standards may be prepared from the same oxygenate stocks and by the same analyst. However, calibration check standards and calibration standards must be prepared from separate batches of the final diluted standards. For the specification limits listed in paragraph (g)(8)(ii)(C) of this section, the concentration of the check standards should be in the range given in paragraph (g)(8)(i)(C) of this section.

(B) Calibration check standards shall be analyzed at a rate of at least one per analysis batch and at least one per 10 samples, whichever is more frequent.

(C) If the measured concentration of a calibration check standard is outside the range of 100.0% ±6.0% of the theoretical concentration for a selected oxygenate of 1.0 mass percent or above, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last standard analysis confirmed to be within the compliance specifications must be repeated. The specification limits for the accuracy of calibration check standards analyses are minimum performance requirements. The performance of individual laboratories may indeed be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process.

(D) Independent reference standards should be purchased or prepared from materials that are independent of the calibration standards and calibration check standards, and must not be prepared by the same analyst. For the specification limits listed in paragraph (g)(8)(ii)(F) of this section, the concentration of the reference standards should be in the range given in paragraph (g)(8)(i)(C) of this section.

(E) Independent reference standards shall be analyzed at a rate of at least one per analysis batch and at least one per 100 samples, whichever is more frequent.

(F) If the measured concentration of an independent reference standard is outside the range of 100.0% ±10.0% of the theoretical concentration for a selected oxygenate of 1.0 mass percent or above, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last independent reference standard analysis confirmed to be within the compliance specifications in that batch must be repeated. The specification limits for the accuracy of independent reference standards analyses are minimum performance requirements. The performance of individual laboratories may be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process.

(G) The preparation and analysis of spiked samples at a rate of one per analysis batch and at least one per ten samples.

(H) Spiked samples shall be prepared by adding a volume of a standard to a known volume of sample. To ensure adequate method detection limits, the volume of the standard added to the sample shall be limited to 5% or less than the volume of the sample. The spiked sample shall be carried through the same sample preparation steps as the background sample.

(I) The percent recovery of the spiked sample shall be calculated as follows:

$$\%\,\text{Recovery} = \frac{100\%\ (C_m(V_o + V_l) - C_o V_o)}{C_s V_l}$$

where:

V_o=Volume of sample (Ml)

V_l=Volume of spiking standard added (Ml)

C_m=Measured concentration of spiked sample

C_o=Measured background concentration of sample

C_s=Known concentration of spiking standard

(J) If the percent recovery of any individual spiked sample is outside the range 100% ±10% from the theoretical concentration, then the sources of error in the analysis must be determined and corrected, and all analyses subsequent to and including the last analysis confirmed to be within the compliance specifications must be repeated. The maintenance of control charts is one acceptable method or ensuring compliance with this specification.

(K) *(1)* Either the range (absolute difference) or relative range (but not necessarily both) for duplicate samples shall be less than the following limits:

Oxygenate	Concentration (volume percent)	Range	Relative range (volume percent)
Methanol	1.0–12.0	.....	7.2
Ethanol	3.0–12.0	.....	7.1
t-Butanol	3.0–12.0	.....	9.4
MTBE	3.0–15.0	0.55	9.2

(2) Relative range is calculated as follows:

$$R_r = \frac{200(R)}{C_o + C_d}$$

where:

R_r=relative range
R=range
C_o=concentration of the original sample
C_d=concentration of the duplicate sample

(3) If the limits in paragraph (g)(8)(ii)(K)(*1*) of this section are exceeded, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last duplicate analysis confirmed to be within the compliance specifications must be repeated. The specification limits for the range and relative range of duplicate analyses are minimum performance requirements. The performance of individual laboratories may indeed be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process. For reference purposes, a single laboratory study of precision (approximately 35 replicates) yielded the following estimates of method precision:

Oxygenate	Concentration (weight percent)	Repeatability (volume percent)	(Percent)
Methanol	2.0	3.7	0.11
Ethanol	2.0	5.4	0.24
t-Butanol	2.0	8.8	0.39
MTBE	2.0	11.0	0.37

(4) Repeatability is defined as the half width of the 95 percent confidence interval for a single analysis at the stated concentration.

(iii) The laboratory shall routinely monitor the accuracy of its analyses. At a minimum this shall include:

(A) Calibration check standards and calibration standards may be prepared from the same oxygenate stocks and by the same analyst. However, calibration check standards and calibration standards must be prepared from separate batches of the final diluted standards. For the specification limits listed in paragraph (g)(8)(iii)(C) of this section, the concentration of the check standards should be in the range given in paragraph (g)(8)(iii)(C) of this section.

(B) Calibration check standards shall be analyzed at a rate of one per analysis batch or at least one per ten samples, whichever is more frequent.

(C) If the measured concentration of a calibration check standard is outside the range of 100%±10% percent of the theoretical concentration for methanol and ethanol, or 100%±13% for t-butanol and MTBE, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last standard analysis confirmed to be within the compliance specifications must be repeated. The specification limits for the accuracy of calibration check standards analyses are minimum performance requirements. The performance of individual laboratories may indeed be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process.

(D) Independent reference standards shall be purchased or prepared from materials that are independent of the calibration standards and calibration check standards, and must not be prepared by the same analyst. For the specification limits listed in paragraph (g)(8)(iii)(F) of this section, the concentration of the reference standards should be in the range given in paragraph (g)(8)(iii)(C) of this section.

(E) Independent reference standards shall be analyzed at a rate of one per analysis batch or at least one per 100 samples, whichever is more frequent.

(F) If the measured concentration of an independent reference standard is outside the range of 100%±10% of the theoretical concentration for methanol and ethanol, or 100%±13% for t-butanol and MTBE, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last independent reference standard analysis confirmed to be within the compliance specifications in that batch must be repeated. The specification limits for the accuracy of independent reference standards analyses are minimum performance requirements. The performance of individual laboratories may indeed be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process.

(G) If matrix effects are suspected, then spiked samples shall be prepared and analyzed as follows:

(1) Spiked samples shall be prepared by adding a volume of a standard to a known volume of sample. To ensure adequate method detection limits, the volume of the standard added to the sample should be minimized to 5% or less of the volume of the sample. The spiked sample should be carried through the same sample preparation steps as the background sample.

(2) The percent recovery of spiked samples should be calculated as follows:

$$\%\text{Recovery} = \frac{100\,(C_c(V_o + V_s) - C_o V_o)}{C_s V_s}$$

where:

C_c=concentration of spiked sample
C_o=concentration of sample without spiking
C_s=known concentration of spiking standard
V_o=volume of sample
V_s=volume of spiking standard added to the sample

(3) If the percent recovery of a spiked sample is outside the range of 100% ±13% of the theoretical concentration for methanol and ethanol, or 100% ±16% for t-butanol and MTBE, the sources of error in the analysis should be determined, corrected, and all analyses subsequent to and including the last analysis confirmed to be within

the compliance specifications must be repeated. The specification limits for the accuracy of the percent recovery of spiked sample analyses are minimum performance requirements. The performance of individual laboratories may indeed be better than these minimum requirements. For this reason it is recommended that control charts be utilized to monitor the variability of measurements in order to optimally detect abnormal situations and ensure a stable measurement process.

(9)(i) Prior to January 1, 1997, and when the oxygenates present are limited to MTBE, ETBE, TAME, DIPE, tertiary-amyl alcohol, and C_1 to C_4 alcohols, any refiner, importer, or oxygenate blender may determine oxygen and oxygenate content using ASTM standard method D–4815–93, entitled "Standard Test Method for Determination of MTBE, ETBE, TAME, DIPE, tertiary-Amyl Alcohol and C_1 to C_4 Alcohols in Gasoline by Gas Chromatography," for purposes of meeting any testing requirement; provided that

(ii) The refiner or importer test result is correlated with the method set forth in paragraphs (g)(1) through (g)(8) of this section.

(h) *Incorporations by reference.* ASTM standard methods D–3606–92, D–1319–93, D–4815–93, D–2622–92, and D–86–90 with the exception of the degrees Fahrenheit figures in Table 9 of D–86–90, are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(A) and 1 CFR part 51. Copies may be obtained from the American Society of Testing Materials, 1916 Race Street, Philadelphia, PA 19103. Copies may be inspected at the Air Docket Section (LE–131), room M–1500, U.S. Environmental Protection Agency, Docket No. A–92–12, 401 M Street SW., Washington, DC 20460 or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

§ 80.47 [Reserved]

§ 80.48 Augmentation of the complex emission model by vehicle testing.

(a) The provisions of this section apply only if a fuel claims emission reduction benefits from fuel parameters that are not included in the complex emission model or complex emission model database, or if the values of fuel parameters included in the complex emission model set forth in § 80.45 fall outside the range of values for which the complex emission model is deemed valid.

(b) To augment the complex emission model described at § 80.45, the following requirements apply:

(1) The petitioner must obtain prior approval from the Administrator for the design of the test program before beginning the vehicle testing process. To obtain approval, the petitioner must at minimum provide the following information: the fuel parameter to be evaluated for emission effects; the number and description of vehicles to be used in the test fleet, including model year, model name, vehicle identification number (VIN), mileage, emission performance (exhaust THC emission level), technology type, and manufacturer; a description of the methods used to procure and prepare the vehicles; the properties of the fuels to be used in the testing program (as specified at § 80.49); the pollutants and emission categories intended to be evaluated; the precautions used to ensure that the effects of the parameter in question are independent of the effects of other parameters already included in the model; a description of the quality assurance procedures to be used during the test program; the statistical analysis techniques to be used in analyzing the test data, and the identity and location of the organization performing the testing.

(2) Exhaust emissions shall be measured per the requirements of this section and § 80.49 through § 80.62.

(3) The nonexhaust emission model (including evaporative, running loss, and refueling VOC and toxics emissions) shall not be augmented by vehicle testing.

(4) The Agency reserves the right to observe and monitor any testing that is performed pursuant to the requirements of this section.

(5) The Agency reserves the right to evaluate the quality and suitability of data submitted pursuant to the requirements of this section and to reject, re-analyze, or otherwise evaluate such data as is technically warranted.

(6) Upon a showing satisfactory to the Administrator, the Administrator may approve a petition to waive the requirements of this section and § 80.49, § 80.50(a), § 80.60(d)(3), and § 80.60(d)(4) in order to better optimize the test program to the needs of the particular fuel parameter. Any such waiver petition should provide information justifying the requested waiver, including an acceptable rationale and supporting data. Petitioners must obtain approval from the Administrator prior to conducting testing for which the requirements in question are waived. The Administrator may waive the noted requirements in whole or in part, and may impose appropriate conditions on any such waiver.

(c) In the case of petitions to augment the complex model defined at § 80.45 with a new parameter, the effect of the parameter being tested shall be determined separately, for each pollutant and for each emitter class category. If the parameter is not included in the complex model but is represented in whole or in part by one or more parameters included in the model, the petitioner shall be required to demonstrate the emission effects of the parameter in question independent of the effects of the already-included parameters. The petitioner shall also have to demonstrate the effects of the already-included parameters independent of the effects of the parameter in question. The emission performance of each vehicle on the fuels specified at § 80.49, as measured through vehicle testing in accordance with § 80.50 through § 80.62, shall be analyzed to determine the effects of the fuel parameter being tested on emissions according to the following procedure:

(1) The analysis shall fit a regression model to the natural logarithm of emissions measured from addition fuels 1, 2, and 3 only (as specified at § 80.49(a)) and adjusted as per paragraph (c)(1)(iv) of this section that includes the following terms:

(i) A term for each vehicle that shall reflect the effect of the vehicle on emissions independent of fuel compositions. These terms shall be of the form $D_i \times V_i$, where D_i is the coefficient for the term and V_i is a dummy variable which shall have the value 1.0 for the ith vehicle and the value 0 for all other vehicles.

(ii) A linear term in the parameter being tested for each emitter class, of the form $A_i \times (P_1 - P_1\ (avg)) \times E_i$, where A_i is the coefficient for the term, P_1 is the level of the parameter in question, P_1 (avg) is the average level of the parameter in question for all seven test fuels specified at § 80.49(a)(1), and E_i is a dummy variable representing emitter class, as defined at § 80.62. For normal emitters, $E_1=1$ and $E_2=0$. For higher emitters, $E_1=0$ and $E_2=1$.

(iii) For the VOC and NO_x models, a squared term in the parameter being tested for each emitter class, of the form $B_i \times (P_1 - P_1\ (avg))^2 \times E_i$, where B_i is the coefficient for the term and where P_1, P_1 (avg), and E_i are as defined in paragraph (c)(1)(ii) of this section.

(iv) To the extent that the properties of fuels 1, 2, and 3 which are incorporated in the complex model differ in value among the three fuels, the

complex model shall be used to adjust the observed emissions from test vehicles on those fuels to compensate for those differences prior to fitting the regression model.

(v) The A_i and B_i terms and coefficients developed by the regression described in this paragraph (c) shall be evaluated against the statistical criteria defined in paragraph (e) of this section. If both terms satisfy these criteria, then both terms shall be retained. If the B_i term satisfies these criteria and the A_i term does not, then both terms shall be retained. If the B_i term does not satisfy these criteria, then the B_i term shall be dropped from the regression model and the model shall be re-estimated. If, after dropping the B_i term, the A_i term does not satisfy these criteria, then both terms shall be dropped, all test data shall be reported to EPA, and the augmentation request shall be denied.

(2) After completing the steps outlined in paragraph (c)(1) of this section, the analysis shall fit a regression model to a combined data set that includes vehicle testing results from all seven addition fuels specified at § 80.49(a), the vehicle testing results used to develop the model specified at § 80.45, and vehicle testing results used to support any prior augmentation requests which the Administrator deems necessary.

(i) The analysis shall fit the regression models described in paragraphs (c)(2)(ii) through (v) of this section to the natural logarithm of measured emissions.

(ii) All regressions shall include a term for each vehicle that shall reflect the effect of the vehicle on emissions independent of fuel compositions. These terms shall be of the form $D_i \times V_i$, where D_i is the coefficient for the term and V_i is a dummy variable which shall have the value 1.0 for the ith vehicle and the value 0 for all other vehicles. Vehicles shall be represented by separate terms for each test program in which they were tested. The vehicle terms for the vehicles included in the test program undertaken by the petitioner shall be calculated based on the results from all seven fuels specified at § 80.49(a). Note that the D_i estimates for the petitioner's test vehicles in this regression are likely to differ from the D_i estimates discussed in paragraph (c)(1)(i) of this section since they will be based on a different set of fuels.

(iii) All regressions shall include existing complex model terms and their coefficients, including those augmentations that the Administrator deems necessary. All terms and coefficients shall be expressed in centered form.

(iv) All regressions shall include the linear and squared terms, and their coefficients, estimated in the final regression model described in paragraph (c)(1) of this section.

(v) The VOC and NO_x regressions shall include those interactive terms with other fuel parameters, of the form $C_{i(1,j)} \times (P_1 - P_1\ (avg)) \times (P_j - P_j\ (avg)) \times E_i$, where $C_{i(1,j)}$ is the coefficient for the term, P_1 is the level of the parameter being added to the model, P_1 (avg) is the average level of the parameter being added for all seven addition fuels specified at § 80.49(a), P_j is the level of the other fuel parameter, P_j (avg) is the centering value for the other fuel parameter used to develop the complex model or used in the other parameter's augmentation study, and E_i is as defined in paragraph (c)(1) of this section, which are found to satisfy the statistical criteria defined in paragraph (e) of this section. Such terms shall be added to the regression model in a stepwise manner.

(3) The model described in paragraphs (c) (1) and (2) of this section shall be developed separately for normal-emitting and higher-emitting vehicles. Each emitter class shall be treated as a distinct population for the purposes of determining regression coefficients.

(4) Once the augmented models described in paragraphs (c) (1) through (3) of this section have been developed, they shall be converted to an uncentered form through appropriate algebraic manipulation.

(5) The augmented model described in paragraph (c)(4) of this section shall be used to determine the effects of the parameter in question at levels between the levels in Fuels 1 and 3, as defined at § 80.49(a)(1), for all fuels which claim emission benefits from the parameter in question.

(d)(1) In the case of petitions to augment the complex model defined at § 80.45 by extending the range of an existing complex model parameter, the effect of the parameter being tested shall be determined separately, for each pollutant and for each technology group and emitter class category, at levels between the extension level and the nearest limit of the core of the data used to develop the unaugmented complex model as follows:

Fuel parameter	Data core limits	
	Lower	Upper
Sulfur, ppm	10	450
RVP, psi	7	10
E200, vol %	33	66
E300, vol %	72	94
Aromatics, vol %	18	46
Benzene, vol %	0.4	1.8
Olefins, vol %	1	19
Oxygen, wt %.		
As ethanol	0	3.4
All others:	0	2.7

(2) The emission performance of each vehicle on the fuels specified at § 80.49(b)(2), as measured through vehicle testing in accordance with §§ 80.50 through 80.62, shall be analyzed to determine the effects of the fuel parameter being tested on emissions according to the following procedure:

(i) The analysis shall incorporate the vehicle testing data from the extension fuels specified at § 80.49(b), the vehicle testing results used to develop the model specified at § 80.45, and vehicle testing results used to support any prior augmentation requests which the Administrator deems necessary. A regression incorporating the following terms shall be fitted to the natural logarithm of emissions contained in this combined data set:

(A) A term for each vehicle that shall reflect the effect of the vehicle on emissions independent of fuel compositions. These terms shall be of the form $D_i \times V_i$, where D_i is the coefficient for the term and V_i is a dummy variable which shall have the value 1.0 for the ith vehicle and the value 0 for all other vehicles. Vehicles shall be represented by separate terms for each test program in which they were tested. The vehicle terms for the vehicles included in the test program undertaken by the petitioner shall be calculated based on the results from all three fuels specified at § 80.49(b)(2).

(B) Existing complex model terms that do not include the parameter being extended and their coefficients, including those augmentations that the Administrator deems necessary. The centering values for these terms shall be identical to the centering values used to develop the complex model described at § 80.45.

(C) Existing complex model terms that include the parameter being extended. The coefficients for these terms shall be estimated by the regression. The centering values for these terms shall be identical to the centering values used to develop the complex model described at § 80.45.

(D) If the unaugmented VOC or NO_x complex models do not contain a squared term for the parameter being extended, such a term should be added in a stepwise fashion after completing the model described in paragraphs

(d)(2)(i)(A) through (C) of this section. The coefficient for this term shall be estimated by the regression. The centering value for this term shall be identical to the centering value used to develop the complex model described at § 80.45.

(E) The terms defined in paragraphs (d)(2)(i)(C) and (D) of this section shall be evaluated against the statistical criteria defined in paragraph (e) of this section.

(ii) The model described in paragraph (d)(2)(i) of this section shall be developed separately for normal-emitting and higher-emitting vehicles, as defined at § 80.62. Each emitter class shall be treated as a distinct population for the purposes of determining regression coefficients.

(e) *Statistical criteria.* (1) The petitioner shall be required to submit evidence with the petition which demonstrates the statistical validity of the regression described in paragraph (c) or (d) of this section, including at minimum:

(i) Evidence demonstrating that colinearity problems are not severe, including but not limited to variance inflation statistics of less than 10 for the second-order and interactive terms included in the regression model.

(ii) Evidence demonstrating that the regression residuals are normally distributed, including but not limited to the skewness and Kurtosis statistics for the residuals.

(iii) Evidence demonstrating that overfitting and underfitting risks have been balanced, including but not limited to the use of Mallow's C_p criterion.

(2) The petitioner shall be required to submit evidence with the petition which demonstrates that the appropriate terms have been included in the regression, including at minimum:

(i) Descriptions of the analysis methods used to develop the regressions, including any computer code used to analyze emissions data and the results of regression runs used to develop the proposed augmentation, including intermediate regressions produced during the stepwise regression process.

(ii) Evidence demonstrating that the significance level used to include terms in the model was equal to 0.90.

(f) The complex emission model shall be augmented with the results of vehicle testing as follows:

(1) The terms and coefficients determined in paragraph (c) or (d) of this section shall be used to supplement the complex emission model equation for the corresponding pollutant and emitter category. These terms and coefficients shall be weighted to reflect the contribution of the emitter category to in-use emissions as shown at § 80.45.

(2) If the candidate parameter is not included in the unaugmented complex model and is not represented in whole or in part by one or more parameters included in the model, the modification shall be accomplished by adding the terms and coefficients to the complex model equation for that pollutant, technology group, and emitter category.

(3) If the parameter is included in the complex model but is being tested at levels beyond the current range of the model, the terms and coefficients determined in paragraph (d) of this section shall be used to supplement the complex emission model equation for the corresponding pollutant.

(i) The terms and coefficients of the complex model described at § 80.45 shall be used to evaluate the emissions performance of fuels with levels of the parameter being tested that are within the valid range of the model, as defined at § 80.45.

(ii) The emissions performance of fuels with levels of the parameter that are beyond the valid range of the unaugmented model shall be given in percentage change terms by 100-[(100+A)×(100+C)/(100+B)], where:

(A) "A" shall be set equal to the percentage change in emissions for a fuel with identical fuel property values to the fuel being evaluated except for the parameter being extended, which shall be set equal to the nearest limit of the data core, using the unaugmented complex model.

(B) "B" shall be set equal to the percentage change in emissions for the fuel described in paragraph (f)(3)(i) of this section according to the augmented complex model.

(C) "C" shall be set equal to the percentage change in emissions of the actual fuel being evaluated using the augmented complex model.

(g) EPA reserves the right to analyze the data generated during vehicle testing, to use such analyses to determine the validity of the augmentation petition, and to use such data to update the complex model for use in certifying all reformulated gasolines.

(h) Duration of acceptance of emission effects determined through vehicle testing:

(1) If the Agency does not accept, modify, or reject a particular augmentation for inclusion in an updated complex model (performed through rulemaking), then the augmentation shall remain in effect until the next update to the complex model takes effect.

(2) If the Agency does reject or modify a particular augmentation for inclusion in an updated complex model, then the augmentation shall no longer be able to be used as of the date the updated complex model is deemed to take effect, unless the following conditions and limitations apply:

(i) The augmentation in question may continue to be used by those fuel suppliers which can prove, to the Administrator's satisfaction, that the fuel supplier had already begun producing a fuel utilizing the augmentation at the time the revised model is promulgated.

(ii) The augmentation in question may only be used to evaluate the emissions performance of fuels in conjunction with the complex emission model in effect as of the date of production of the fuels.

(iii) The augmentation may only be used for three years of fuel production, or a total of five years from the date the augmentation first took effect, whichever is shorter.

(3) The Administrator shall determine when sufficient new information on the effects of fuel properties on vehicle emissions has been obtained to warrant development of an updated complex model.

§ 80.49 Fuels to be used in augmenting the complex emission model through vehicle testing.

(a) Seven fuels (hereinafter called the "addition fuels") shall be tested for the purpose of augmenting the complex emission model with a parameter not currently included in the complex emission model. The properties of the addition fuels are specified in paragraphs (a) (1) and (2) of this section. The addition fuels shall be specified with at least the same level of detail and precision as in § 80.43(c), and this information must be included in the petition submitted to the Administrator requesting augmentation of the complex emission model.

(1) The seven addition fuels to be tested when augmenting the complex model specified at § 80.45 with a new fuel parameter shall have the properties specified as follows:

PROPERTIES OF FUELS TO BE TESTED WHEN AUGMENTING THE MODEL WITH A NEW FUEL PARAMETER

Fuel property	Fuels						
	1	2	3	4	5	6	7
Sulfur, ppm	150	150	150	35	35	500	500
Benzene, vol %	1.0	1.0	1.0	0.5	0.5	1.3	1.3
RVP, psi	7.5	7.5	7.5	6.5	6.5	8.1	8.1
E200, %	50	50	50	62	62	37	37
E300, %	85	85	85	92	92	79	79
Aromatics, vol %	27	27	27	20	20	45	45
Olefins, vol %	9.0	9.0	9.0	2.0	2.0	18	18
Oxygen, wt %	2.1	2.1	2.1	2.7	2.7	1.5	1.5
Octane, (R+M)/2	87	87	87	87	87	87	87
New Parameter[1]	C	C+B/2	B	C	B	C	B

[1] C=Candidate level, B=Baseline level.

(i) For the purposes of vehicle testing, the "baseline" level of the parameter shall refer to the level of the parameter in Clean Air Act baseline gasoline. The "candidate" level of the parameter shall refer to the most extreme value of the parameter, relative to baseline levels, for which the augmentation shall be valid.

(ii) If the fuel parameter for which the fuel supplier is petitioning EPA to augment the complex emission model (hereinafter defined as the "candidate parameter") is not specified for Clean Air Act summer baseline fuel, then the baseline level for the candidate parameter shall be set at the levels found in typical gasoline. This level and the justification for this level shall be included in the petitioner's submittal to EPA prior to initiating the test program, and EPA must approve this level prior to the start of the program.

(iii) If the candidate parameter is not specified for Clean Air Act summer baseline fuel, and is not present in typical gasoline, its baseline level shall be zero.

(2) The addition fuels shall contain detergent control additives in accordance with section 211(l) of the Clean Air Act Amendments of 1990 and the associated EPA requirements for such additives.

(3) The addition fuels shall be specified with at least the same level of detail and precision as in § 80.43(c), and this information shall be included in the petition submitted to the Administrator requesting augmentation of the complex emission model.

(i) Paraffin levels in Fuels 1 and 2 shall be altered from the paraffin level in Fuel 3 to compensate for the addition or removal of the candidate parameter, if necessary. Paraffin levels in Fuel 4 shall be altered from the paraffin level in Fuel 5 to compensate for the addition or removal of the candidate parameter, if necessary. Paraffin levels in Fuel 6 shall be altered from the paraffin level in Fuel 7 to compensate for the addition or removal of the candidate parameter, if necessary.

(ii) Other properties of Fuels 4 and 6 shall not vary from the levels for Fuels 5 and 7, respectively, unless such variations are the naturally-occurring result of the changes described in paragraphs (a)(1) and (2) of this section. Other properties of Fuels 1 and 2 shall not vary from the levels for Fuel 3, unless such variations are the naturally-occurring result of the changes described in paragraphs (a)(1) and (2) of this section.

(iii) The addition fuels shall be specified with at least the same level of detail and precision as defined in paragraph (a)(5)(i) of this section, and this information must be included in the petition submitted to the Administrator requesting augmentation of the complex emission model.

(4) The properties of the addition fuels shall be within the blending tolerances defined in this paragraph (a)(4) relative to the values specified in paragraphs (a)(1) and (2) of this section. Fuels that do not meet these tolerances shall require the approval of the Administrator to be used in vehicle testing to augment the complex emission model:

Fuel parameter	Blending tolerance
Sulfur content	±25 ppm.
Benzene content	±0.2 vol %.
RVP	±0.2 psi.
E200 level	±2 %.
E300 level	±4 %.
Oxygenate content	±1.0 vol %.
Aromatics content	±2.7 vol %.
Olefins content	±2.5 vol %.
Saturates content	±2.0 vol %.
Octane	±0.5.
Detergent control additives.	±10% of the level required by EPA's detergents rule.
Candidate parameter	To be determined as part of the augmentation process.

(5) The composition and properties of the addition fuels shall be determined by averaging a series of independent tests of the properties and compositional factors defined in paragraph (a)(5)(i) of this section as well as any additional properties or compositional factors for which emission benefits are claimed.

(i) The number of independent tests to be conducted shall be sufficiently large to reduce the measurement uncertainty for each parameter to a sufficiently small value. At a minimum the 95% confidence limits (as calculated using a standard t-test) for each parameter must be within the following range of the mean measured value of each parameter:

Fuel parameter	Measurement uncertainty
API gravity	±0.2°API.
Sulfur content	±10 ppm.
Benzene content	±0.02 vol %.
RVP	±0.05 psi.
Octane	±0.2 (R+M/2).
E200 level	±2%.
E300 level	±2%.
Oxygenate content	±0.2 vol %.
Aromatics content	±0.5 vol %.
Olefins content	±0.3 vol %.
Saturates content	±1.0 vol %.
Detergent control additives.	±2% of the level required by EPA's detergents rule.
Candidate parameter	To be determined as part of the augmentation process.

(ii) The 95% confidence limits for measurements of fuel parameters for which emission reduction benefits are claimed and for which tolerances are not defined in paragraph (a)(5)(i) of this section must be within ±5% of the mean measured value.

(iii) Each test must be conducted in the same laboratory in accordance with the procedures outlined at § 80.46.

(b) Three fuels (hereinafter called the "extension fuels") shall be tested for the

purpose of extending the valid range of the complex emission model for a parameter currently included in the complex emission model. The properties of the extension fuels are specified in paragraphs (b)(2) through (4) of this section. The extension fuels shall be specified with at least the same level of detail and precision as in § 80.43(c), and this information must be included in the petition submitted to the Administrator requesting augmentation of the complex emission model. Each set of three extension fuels shall be used only to extend the range of a single complex model parameter.

(1) The "extension level" shall refer to the level to which the parameter being tested is to be extended. The three fuels to be tested when extending the range of fuel parameters already included in the complex model or a prior augmentation to the complex model shall be referred to as "extension fuels."

(2) The composition and properties of the extension fuels shall be as described in paragraphs (b)(2) (i) and (ii) of this section.

(i) The extension fuels shall have the following levels of the parameter being extended:

LEVEL OF EXISTING COMPLEX MODEL PARAMETERS BEING EXTENDED

Fuel property being extended	Extension fuel No. 1	Extension fuel No. 2	Extension fuel No. 3
Sulfur, ppm	Extension level	80	450
Benzene, vol %	Extension level	0.5	1.5
RVP, psi	Extension level	6.7	8.0
E200, %	Extension level	38	61
E300, %	Extension level	78	92
Aromatics, vol %	Extension level	20	45
Olefins, vol %	Extension level	3.0	18
Oxygen, wt %	Extension level	1.7	2.7
Octane, R+M/2	87	87	87

(ii) The levels of parameters other than the one being extended shall be given by the following table for all three extension fuels:

LEVELS FOR FUEL PARAMETERS OTHER THAN THOSE BEING EXTENDED

Fuel property	Extension fuel No. 1	Extension fuel No. 2	Extension fuel No. 3
Sulfur, ppm	150	150	150
Benzene, vol %	1.0	1.0	1.0
RVP, psi	7.5	7.5	7.5
E200, %	50	50	50
E300, %	85	85	85
Aromatics, vol %	25	25	25
Olefins, vol %	9.0	9.0	9.0
Oxygen, wt %	2.0	2.0	2.0
Octane, R+M/2	87	87	87

(3) If the Complex Model for any pollutant includes one or more interactive terms involving the parameter being extended, then two additional extension fuels shall be required to be tested for each such interactive term. These additional extension fuels shall have the following properties:

(i) The parameter being tested shall be present at its extension level.

(ii) The interacting parameter shall be present at the levels specified in paragraph (b)(2)(i) of this section for extension Fuels 2 and 3.

(iii) All other parameters shall be present at the levels specified in paragraphs (b)(2)(ii) and (b)(3) of this section.

(4) All extension fuels shall contain detergent control additives in accordance with Section 211(l) of the Clean Air Act Amendments of 1990 and the associated EPA requirements for such additives.

(c) The addition fuels defined in paragraph (a) of this section and the extension fuels defined in paragraph (b) of this section shall meet the following requirements for blending and measurement precision:

(1) The properties of the test and extension fuels shall be within the blending tolerances defined in this paragraph (c) relative to the values specified in paragraphs (a) and (b) of this section. Fuels that do not meet the following tolerances shall require the approval of the Administrator to be used in vehicle testing to augment the complex emission model:

Fuel parameter	Blending tolerance
Sulfur content	±25 ppm.
Benzene content	±0.2 vol %.
RVP	±0.2 psi.
E200 level	±2 %.
E300 level	±4 %.
Oxygenate content	±1.5 vol %.
Aromatics content	±2.7 vol %.
Olefins content	±2.5 vol %.
Saturates content	±2.0 vol %.
Octane	±0.5.
Candidate parameter	To be determined as part of the augmentation process.

(2) The extension and addition fuels shall be specified with at least the same level of detail and precision as defined in paragraph (c)(2)(ii) of this section, and this information must be included in the petition submitted to the Administrator requesting augmentation of the complex emission model.

(i) The composition and properties of the addition and extension fuels shall be determined by averaging a series of independent tests of the properties and compositional factors defined in paragraph (c)(2)(ii) of this section as well as any additional properties or compositional factors for which emission benefits are claimed.

(ii) The number of independent tests to be conducted shall be sufficiently large to reduce the measurement uncertainty for each parameter to a sufficiently small value. At a minimum the 95% confidence limits (as calculated using a standard t-test) for each parameter must be within the following range of the mean measured value of each parameter:

Fuel parameter	Measurement uncertainty
API gravity	±0.2 °API.
Sulfur content	±5 ppm.
Benzene content	±0.05 vol %.
RVP	±0.08 psi.
Octane	±0.1 (R+M/2).
E200 level	±2 %.
E300 level	±2 %.
Oxygenate content	±0.2 vol %.
Aromatics content	±0.5 vol %.
Olefins content	±0.3 vol %.
Saturates content	±1.0 vol.%
Octane	±0.2.
Candidate parameter	To be determined as part of the augmentation process.

(iii) Petitioners shall obtain approval from EPA for the 95% confidence limits for measurements of fuel parameters for which emission reduction benefits are claimed and for which tolerances are not defined in paragraph (c)(2)(i) of this section.

(iv) Each test must be conducted in the same laboratory in accordance with the procedures outlined at § 80.46.

(v) The complex emission model described at § 80.45 shall be used to adjust the emission performance of the addition and extension fuels to compensate for differences in fuel compositions that are incorporated in the complex model, as described at § 80.48. Compensating adjustments for naturally-resulting variations in fuel parameters shall also be made using the complex model. The adjustment process is described in paragraph (d) of this section.

(d) The complex emission model described at § 80.45 shall be used to adjust the emission performance of addition and extension fuels to compensate for differences in fuel parameters other than the parameter being tested. Compensating adjustments for naturally-resulting variations in fuel parameters shall also be made using the complex model. These adjustments shall be calculated as follows:

(1) Determine the exhaust emissions performance of the actual addition or extension fuels relative to the exhaust emissions performance of Clean Air Act baseline fuel using the complex model. For addition fuels, set the level of the parameter being tested at baseline levels for purposes of emissions performance evaluation using the complex model. For extension fuel #1, set the level of the parameter being extended at the level specified in extension fuel #2. Also determine the exhaust emissions performance of the addition fuels specified in paragraph (a)(1) of this section with the level of the parameter being tested set at baseline levels.

(2) Calculate adjustment factors for each addition fuel as follows:

(i) Adjustment factors shall be calculated using the formula:

$$A = \frac{[1+(P(actual)/100)]}{[1+(P(nominal)/100)]}$$

where

A=the adjustment factor

P(actual)=the performance of the actual fuel used in testing according to the complex model

P(nominal)=the performance that would have been achieved by the test fuel defined in paragraph (a)(1) of this section according to the complex model (as described in paragraph (d)(1) of this section).

(ii) Adjustment factors shall be calculated for each pollutant and for each emitter class.

(3) Multiply the measured emissions from each vehicle by the corresponding adjustment factor for the appropriate addition or extension fuel, pollutant, and emitter class. Use the resulting adjusted emissions to conduct all modeling and emission effect estimation activities described in § 80.48.

(e) All fuels included in vehicle testing programs shall have an octane number of 87.5, as measured by the (R+M)/2 method following the ASTM D4814 procedures, to within the measurement and blending tolerances specified in paragraph (c) of this section.

(f) A single batch of each addition or extension fuel shall be used throughout the duration of the testing program.

§ 80.50 General test procedure requirements for augmentation of the emission models.

(a) The following test procedure must be followed when testing to augment the complex emission model described at § 80.45.

(1) VOC, NO_X, CO, and CO_2 emissions must be measured for all fuel-vehicle combinations tested.

(2) Toxics emissions must be measured when testing the extension fuels per the requirements of § 80.49(a) or when testing addition fuels 1, 2, and 3 per the requirements of § 80.49(a).

(3) When testing addition fuels 4, 5, 6, and 7 per the requirements of § 80.49(a), toxics emissions need not be measured. However, EPA reserves the right to require the inclusion of such measurements in the test program prior to approval of the test program if evidence exists which suggests that adverse interactive effects of the parameter in question may exist for toxics emissions.

(b) The general requirements per 40 CFR 86.130–96 shall be met.

(c) The engine starting and restarting procedures per 40 CFR 86.136–90 shall be followed.

(d) Except as provided for at § 80.59, general preparation of vehicles being tested shall follow procedures detailed in 40 CFR 86.130–96 and 86.131–96.

§ 80.51 Vehicle test procedures.

The test sequence applicable when augmenting the emission models through vehicle testing is as follows:

(a) Prepare vehicles per § 80.50.

(b) Initial preconditioning per § 80.52(a)(1). Vehicles shall be refueled randomly with the fuels required in § 80.49 when testing to augment the complex emission model.

(c) Exhaust emissions tests, dynamometer procedure per 40 CFR 86.137–90 with:

(1) Exhaust Benzene and 1,3–Butadiene emissions measured per § 80.55; and

(2) Formaldehyde and Acetelaldehyde emissions measured per § 80.56.

§ 80.52 Vehicle preconditioning.

(a) Initial vehicle preconditioning and preconditioning between tests with different fuels shall be performed in accordance with the "General vehicle handling requirements" per 40 CFR 86.132–96, up to and including the completion of the hot start exhaust test.

(b) The preconditioning procedure prescribed at 40 CFR 86.132–96 shall be observed for preconditioning vehicles between tests using the same fuel.

§§ 80.53–80.54 [Reserved]

§ 80.55 Measurement methods for benzene and 1,3-butadiene.

(a) Sampling for benzene and 1,3-butadiene must be accomplished by bag sampling as used for total hydrocarbons determination. This procedure is detailed in 40 CFR 86.109.

(b) Benzene and 1,3-butadiene must be analyzed by gas chromatography. Expected values for benzene and 1,3-butadiene in bag samples for the baseline fuel are 4.0 ppm and 0.30 ppm respectively. At least three standards ranging from at minimum 50% to 150% of these expected values must be used to calibrate the detector. An additional standard of at most 0.01 ppm must also be measured to determine the required limit of quantification as described in paragraph (d) of this section.

(c) The sample injection size used in the chromatograph must be sufficient to be above the laboratory determined limit of quantification (LOQ) as defined in paragraph (d) of this section for at least one of the bag samples. A control chart of the measurements of the standards used to determine the response, repeatability, and limit of

quantitation of the instrumental method for 1,3-butadiene and benzene must be reported.

(d) As in all types of sampling and analysis procedures, good laboratory practices must be used. See, Lawrence, Principals of Environmental Analysis, 55 Analytical Chemistry 14, at 2210–2218 (1983) (copies may be obtained from the publisher, American Chemical Society, 1155 16th Street NW., Washington, DC 20036). Reporting reproducibility control charts and limits of detection measurements are integral procedures to assess the validity of the chosen analytical method. The repeatability of the test method must be determined by measuring a standard periodically during testing and recording the measured values on a control chart. The control chart shows the error between the measured standard and the prepared standard concentration for the periodic testing. The error between the measured standard and the actual standard indicates the uncertainty in the analysis. The limit of detection (LOD) is determined by repeatedly measuring a blank and a standard prepared at a concentration near an assumed value of the limit of detection. If the average concentration minus the average of the blanks is greater than three standard deviations of these measurements, then the limit of detection is at least as low as the prepared standard. The limit of quantitation (LOQ) is defined as ten times the standard deviation of these measurements. This quantity defines the amount of sample required to be measured for a valid analysis.

(e) Other sampling and analytical techniques will be allowed if they can be proven to have equal specificity and equal or better limits of quantitation. Data from alternative methods that can be demonstrated to have equivalent or superior limits of detection, precision, and accuracy may be accepted by the Administrator with individual prior approval.

§ 80.56 Measurement methods for formaldehyde and acetaldehyde.

(a) Formaldehyde and acetaldehyde will be measured by drawing exhaust samples from heated lines through either 2,4–Dinitrophenylhydrazine (DNPH) impregnated cartridges or impingers filled with solutions of DNPH in acetonitrile (ACN) as described in §§ 86.109 and 86.140 of this chapter for formaldehyde analysis. Diluted exhaust sample volumes must be at least 15 L for impingers containing 20 ml of absorbing solution (using more absorbing solution in the impinger requires proportionally more gas sample to be taken) and at least 4 L for cartridges. As required in § 86.109 of this chapter, two impingers or cartridges must be connected in series to detect breakthrough of the first impinger or cartridge.

(b) In addition, sufficient sample must be drawn through the collecting cartridges or impingers so that the measured quantity of aldehyde is sufficiently greater than the minimum limit of quantitation of the test method for at least a portion of the exhaust test procedure. The limit of quantitation is determined using the technique defined in § 80.55(d).

(c) Each of the impinger samples are quantitatively transferred to a 25 mL volumetric flask (5 mL more than the sample impinger volume) and brought to volume with ACN. The cartridge samples are eluted in reversed direction by gravity feed with 6mL of ACN. The eluate is collected in a graduated test tube and made up to the 5mL mark with ACN. Both the impinger and cartridge samples must be analyzed by HPLC without additional sample preparation.

(d) The analysis of the aldehyde derivatives collected is accomplished with a high performance liquid chromatograph (HPLC). Standards consisting of the hydrazone derivative of formaldehyde and acetaldehyde are used to determine the response, repeatability, and limit of quantitation of the HPLC method chosen for acetaldehyde and formaldehyde.

(e) Other sampling and analytical techniques will be allowed if they can be proven to have equal specificity and equal or better limits of quantitation. Data from alternative methods that can be demonstrated to have equivalent or superior limits of detection, precision, and accuracy may be accepted by the Administrator with individual prior approval.

§§ 80.57–80.58 [Reserved]

§ 80.59 General test fleet requirements for vehicle testing.

(a) The test fleet must consist of only 1989–91 MY vehicles which are technologically equivalent to 1990 MY vehicles, or of 1986–88 MY vehicles for which no changes to the engine or exhaust system that would significantly affect emissions have been made through the 1990 model year. To be technologically equivalent vehicles must have closed-loop systems and possess adaptive learning.

(b) No maintenance or replacement of any vehicle component is permitted except when necessary to ensure operator safety or as specifically permitted in § 80.60 and § 80.61. All vehicle maintenance procedures must be reported to the Administrator.

(c) Each vehicle in the test fleet shall have no fewer than 4,000 miles of accumulated mileage prior to being included in the test program.

§ 80.60 Test fleet requirements for exhaust emission testing.

(a) Candidate vehicles which conform to the emission performance requirements defined in paragraphs (b) through (d) of this section shall be obtained directly from the in-use fleet and tested in their as-received condition.

(b) Candidate vehicles for the test fleet must be screened for their exhaust VOC emissions in accordance with the provisions in § 80.62.

(c) On the basis of pretesting pursuant to paragraph (b) of this section, the test fleet shall be subdivided into two emitter group sub-fleets: the normal emitter group and the higher emitter group.

(1) Each vehicle with an exhaust total hydrocarbon (THC) emissions rate which is less than or equal to twice the applicable emissions standard shall be placed in the normal emitter group.

(2) Each vehicle with an exhaust THC emissions rate which is greater than two times the applicable emissions standard shall be placed in the higher emitter group.

(d) The test vehicles in each emitter group must conform to the requirements of paragraphs (d)(1) through (4) of this section.

(1) Test vehicles for the normal emitter sub-fleet must be selected from the list shown in this paragraph (d)(1). This list is arranged in order of descending vehicle priority, such that the order in which vehicles are added to the normal emitter sub-fleet must conform to the order shown (e.g., a ten-vehicle normal emitter group sub-fleet must consist of the first ten vehicles listed in this paragraph (d)(1)). If more vehicles are tested than the minimum number of vehicles required for the normal emitter sub-fleet, additional vehicles are to be added to the fleet in the order specified in this paragraph (d)(1), beginning with the next vehicle not already included in the group. The vehicles in the normal emitter sub-fleet must possess the characteristics indicated in the list. If the end of the list is reached in adding vehicles to the normal emitter sub-fleet and additional vehicles are desired then they shall be added beginning with vehicle number one, and must be added to the normal emitter sub-fleet in accordance with the order in Table A:

TABLE A—TEST FLEET DEFINITIONS

Veh. No.	Fuel system	Catalyst	Air injection	EGR	Tech. group	Manufacturer
1	Multi	3W	No Air	EGR	1	GM.
2	Multi	3W	No Air	No EGR	2	Ford.
3	TBI	3W	No Air	EGR	3	GM.
4	Multi	3W+OX	Air	EGR	4	Ford.
5	Multi	3W	No Air	EGR	1	Honda.
6	Multi	3W	No Air	No EGR	2	GM.
7	TBI	3W	No Air	EGR	3	Chrysler.
8	Multi	3W+OX	Air	EGR	4	GM.
9	TBI	3W+OX	Air	EGR	7	Chrysler.
10	Multi	3W	Air	EGR	5	Toyota.
11	Multi	3W	No Air	EGR	1	Ford.
12	Multi	3W	No Air	No EGR	2	Chrysler.
13	Carb	3W+OX	Air	EGR	9	Toyota.
14	TBI	3W	No Air	EGR	3	Ford.
15	Multi	3W+OX	Air	EGR	4	GM.
16	Multi	3W	No Air	EGR	1	Toyota.
17	Multi	3W	No Air	No EGR	2	Mazda.
18	TBI	3W	No Air	EGR	3	GM.
19	Multi	3W+OX	Air	EGR	4	Ford.
20	Multi	3W	No Air	EGR	1	Nissan.

TABLE B—TECH GROUP DEFINITIONS IN TABLE A

Tech group	Fuel system	Catalyst	Air injection	EGR
1	Multi	3W	No Air	EGR.
2	Multi	3W	No Air	No EGR.
3	TBI	3W	No Air	EGR.
4	Multi	3W+OX	Air	EGR.
5	Multi	3W	Air	EGR.
6	TBI	3W	Air	EGR.
7	TBI	3W+OX	Air	EGR.
8	TBI	3W	No Air	No EGR.
9	Carb	3W+OX	Air	EGR.

Legend:
Fuel system:
Multi=Multi-point fuel injection
TBI=Throttle body fuel injection
Carb=Carburetted
Catalyst:
3W=3–Way catalyst
3W+OX=3–Way catalyst plus an oxidation catalyst
Air Injection:
Air=Air injection
EGR=Exhaust gas recirculation

(2) Test vehicles for the higher emitter sub-fleet shall be selected from the in-use fleet in accordance with paragraphs (a) and (b) of this section and with § 80.59. Test vehicles for the higher emitter sub-fleet are not required to follow the pattern established in paragraph (d)(1) of this section.

(3) The minimum test fleet size is 20 vehicles. Half of the vehicles tested must be included in the normal emitter sub-fleet and half of the vehicles tested must be in the higher emitter sub-fleet. If additional vehicles are tested beyond the minimum of twenty vehicles, the additional vehicles shall be distributed equally between the normal and higher emitter sub-fleets.

(4) For each emitter group sub-fleet, 70 ± 9.5% of the sub-fleet must be LDVs, & 30 ± 9.5% must be LDTs. LDTs include light-duty trucks class 1 (LDT1), and light-duty trucks class 2 (LDT2) up to 8500 lbs GVWR.

§ 80.61 [Reserved]

§ 80.62 Vehicle test procedures to place vehicles in emitter group sub-fleets.

One of the two following test procedures must be used to screen candidate vehicles for their exhaust THC emissions to place them within the emitter group sub-fleets in accordance with the requirements of § 80.60.

(a) Candidate vehicles may be tested for their exhaust THC emissions using the federal test procedure as detailed in 40 CFR part 86, with gasoline conforming to requirements detailed in 40 CFR 86.113–90. The results shall be used in accordance with the requirements in § 80.60 to place the vehicles within their respective emitter groups.

(b) Alternatively, candidate vehicles may be screened for their exhaust THC emissions with the IM240 short test procedure.[1] The results from the IM240 shall be converted into results comparable with the standard exhaust FTP as detailed in this paragraph (b) to place the vehicles within their respective emitter groups in accordance with the requirements of § 80.60.

(1) A candidate vehicle with IM240 test results <0.367 grams THC per vehicle mile shall be classified as a normal emitter.

(2) A candidate vehicle with IM240 test results ≥0.367 grams THC per vehicle mile shall be classified as a higher emitter.

§§ 80.63–80.64 [Reserved]

§ 80.65 General requirements for refiners, importers, and oxygenate blenders.

(a) *Date requirements begin.* The requirements of this subpart D apply to all gasoline produced, imported, transported, stored, sold, or dispensed:

[1] EPA Technical Report EPA–AA–TSS–91–1. Copies may be obtained by ordering publication number PB92104405 from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

(1) At any location other than retail outlets and wholesale purchaser-consumer facilities on or after December 1, 1994; and

(2) At any location on or after January 1, 1995.

(b) *Certification of gasoline and RBOB.* Gasoline or RBOB sold or dispensed in a covered area must be certified under § 80.40.

(c) *Standards must be met on either a per-gallon or on an average basis.* (1) Any refiner or importer, for each batch of reformulated gasoline or RBOB it produces or imports, shall meet:

(i) Those standards and requirements it designated under paragraph (d) of this section for per-gallon compliance on a per-gallon basis; and

(ii) Those standards and requirements it designated under paragraph (d) of this section for average compliance on an average basis over the applicable averaging period; except that

(iii) Refiners and importers are not required to meet the oxygen standard for RBOB.

(2) Any oxygenate blender, for each batch of reformulated gasoline it produces by blending oxygenate with RBOB shall, subsequent to the addition of oxygenate, meet the oxygen standard either per-gallon or average over the applicable averaging period.

(3)(i) For each averaging period, and separately for each parameter that may be met either per-gallon or on average, any refiner shall designate for each refinery, and any importer or oxygenate blender shall designate, its gasoline or RBOB as being subject to the standard applicable to that parameter on either a per-gallon or average basis. For any specific averaging period and parameter all batches of gasoline or RBOB shall be designated as being subject to the per-gallon standard, or all batches of gasoline and RBOB shall be designated as being subject to the average standard. For any specific averaging period and parameter a refiner for a refinery, or any importer or oxygenate blender, may not designate certain batches as being subject to the per-gallon standard and others as being subject to the average standard.

(ii) In the event any refiner for a refinery, or any importer or oxygenate blender, fails to meet the requirements of paragraph (c)(3)(i) of this section and for a specific averaging period and parameter designates certain batches as being subject to the per-gallon standard and others as being subject to the average standard, all batches produced or imported during the averaging period that were designated as being subject to the average standard shall, *ab initio*, be redesignated as being subject to the per-gallon standard. This redesignation shall apply regardless of whether the batches in question met or failed to meet the per-gallon standard for the parameter in question.

(d) *Designation of gasoline.* Any refiner or importer of gasoline shall designate the gasoline it produces or imports as follows:

(1) All gasoline produced or imported shall be properly designated as either reformulated or conventional gasoline, or as RBOB.

(2) All gasoline designated as reformulated or as RBOB shall be further properly designated as:

(i) Either VOC-controlled or not VOC-controlled;

(ii) In the case of gasoline or RBOB designated as VOC-controlled, either intended for use in VOC-Control Region 1 or VOC-Control Region 2 (as defined in § 80.71);

(iii) Either oxygenated fuels program reformulated gasoline, or not oxygenated fuels program reformulated gasoline. Gasoline or RBOB must be designated as oxygenated fuels program reformulated gasoline if such gasoline:

(A) Contains more than 2.0 weight percent oxygen; and

(B) Arrives at a terminal from which gasoline is dispensed into trucks used to deliver gasoline to an oxygenated fuels control area within five days prior to the beginning of the oxygenated fuels control period for that control area;

(iv) For gasoline or RBOB produced, imported, sold, dispensed or used during the period January 1, 1995 through December 31, 1997, either as being subject to the simple model standards, or to the complex model standards;

(v) For each of the following parameters, either gasoline or RBOB which meets the standard applicable to that parameter on a per-gallon basis or on average:

(A) Toxics emissions performance;

(B) NO_x emissions performance;

(C) Benzene content;

(D) With the exception of RBOB, oxygen content;

(E) In the case of VOC-controlled gasoline or RBOB certified using the simple model, RVP; and

(F) In the case of VOC-controlled gasoline or RBOB certified using the complex model, VOC emissions performance; and

(vi) In the case of RBOB, either as RBOB that may be blended with any oxygenate, or RBOB that may be blended with an ether only.

(3) Each batch of reformulated or conventional gasoline or RBOB produced or imported at each refinery or import facility, or each batch of blendstock produced and sold or transferred if blendstock accounting is required under § 80.101(d)(1)(ii), shall be assigned a number (the "batch number"), consisting of the EPA-assigned refiner, importer, or oxygenate blender registration number, the EPA-assigned facility registration number, the last two digits of the year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced or imported each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (e.g., 4321–4321–95–001, 4321–4321–95–002, etc.).

(e) *Determination of properties.* (1) Each refiner or importer shall determine the value of each of the properties specified in paragraph (e)(2)(i) of this section for each batch of reformulated gasoline it produces or imports prior to the gasoline leaving the refinery or import facility, by collecting and analyzing a representative sample of gasoline taken from the batch, using the methodologies specified in § 80.46. This collection and analysis shall be carried out either by the refiner or importer, or by an independent laboratory. A batch of simple model reformulated gasoline may be released by the refiner or importer prior to the receipt of the refiner's or importer's test results except for test results for oxygen, benzene, and RVP.

(2) In the event that the values of any of these properties is determined by the refiner or importer and by an independent laboratory in conformance with the requirements of paragraph (f) of this section:

(i) The results of the analyses conducted by the refiner or importer for such properties shall be used as the basis for compliance determinations unless the absolute value of the differences of the test results from the two laboratories is larger than the following values:

Fuel property	Range
Sulfur content	25 ppm
Aromatics content	2.7 vol %
Olefins content	2.5 vol %
Benzene content	0.21 vol %
Ethanol content	0.4 vol %
Methanol content	0.2 vol %
MTBE (and other methyl ethers) content.	0.6 vol %
ETBE (and other ethyl ethers) content.	0.6 vol %
TAME	0.6 vol %
t-Butanol content	0.6 vol %
RVP	0.3 psi
50% distillation	5 °F
90% distillation	5 °F
API Gravity	0.3 °API

(ii) In the event the values from the two laboratories for any property fall outside these ranges, the refiner or importer shall use as the basis for compliance determinations:

(A) The larger of the two values for the property, except the smaller of the two results shall be used for MTBE, ethanol, methanol, or ETBE for calculating compliance with all requirements and standards except RVP; or

(B) The refiner shall have the gasoline analyzed for the property at one additional independent laboratory. If this second independent laboratory obtains a result for the property that is within the range, as listed in paragraph (e)(2)(i) of this section, of the refiner's or importer's result for this property, then the refiner's or importer's result shall be used as the basis for compliance determinations.

(f) *Independent analysis requirement.* (1) Any refiner or importer of reformulated gasoline or RBOB shall carry out a program of independent sample collection and analyses for the reformulated gasoline it produces or imports, which meets the requirements of one of the following two options:

(i) *Option 1.* The refiner or importer shall, for each batch of reformulated gasoline or RBOB that is produced or imported, have the value for each property specified in paragraph (e)(2)(i) of this section determined by an independent laboratory that collects and analyzes a representative sample from the batch using the methodologies specified in § 80.46.

(ii) *Option 2.* The refiner or importer shall have a periodic independent testing program carried out for all reformulated gasoline produced or imported, which shall consist of the following:

(A) An independent laboratory shall collect a representative sample from each batch of reformulated gasoline that the refiner or importer produces or imports;

(B) EPA will identify up to ten percent of the total number of samples collected under paragraph (f)(1)(ii)(A) of this section; and

(C) The designated independent laboratory shall, for each sample identified by EPA under paragraph (f)(1)(ii)(B) of this section, determine the value for each property using the methodologies specified in § 80.46.

(2)(i) Any refiner or importer shall designate one independent laboratory for each refinery or import facility at which reformulated gasoline or RBOB is produced or imported. This independent laboratory will collect samples and perform analyses in compliance with the requirements of this paragraph (f) of this section.

(ii) Any refiner or importer shall identify this designated independent laboratory to EPA under the registration requirements of § 80.76.

(iii) In order to be considered independent:

(A) The laboratory shall not be operated by any refiner or importer, and shall not be operated by any subsidiary or employee of any refiner or importer;

(B) The laboratory shall be free from any interest in any refiner or importer; and

(C) The refiner or importer shall be free from any interest in the laboratory; however

(D) Notwithstanding the restrictions in paragraphs (f)(2)(iii) (A) through (C) of this section, a laboratory shall be considered independent if it is owned or operated by a gasoline pipeline company, regardless of ownership or operation of the gasoline pipeline company by refiners or importers, provided that such pipeline company is owned and operated by four or more refiners or importers.

(iv) Use of a laboratory that is debarred, suspended, or proposed for debarment pursuant to the Governmentwide Debarment and Suspension regulations, 40 CFR part 32, or the Debarment, Suspension and Ineligibility provisions of the Federal Acquisition Regulations, 48 CFR part 9, subpart 9.4, shall be deemed noncompliance with the requirements of this paragraph (f).

(v) Any laboratory that fails to comply with the requirements of this paragraph (f) shall be subject to debarment or suspension under Governmentwide Debarment and Suspension regulations, 40 CFR part 32, or the Debarment, Suspension and Ineligibility regulations, Federal Acquisition Regulations, 48 CFR part 9, subpart 9.4.

(3) Any refiner or importer shall, for all samples collected or analyzed pursuant to the requirements of this paragraph (f), cause its designated independent laboratory:

(i) At the time the designated independent laboratory collects a representative sample from a batch of reformulated gasoline, to:

(A) Obtain the refiner's or importer's assigned batch number for the batch being sampled;

(B) Determine the volume of the batch;

(C) Determine the identification number of the gasoline storage tank or tanks in which the batch was stored at the time the sample was collected;

(D) Determine the date and time the batch became finished reformulated gasoline, and the date and time the sample was collected;

(E) Determine the grade of the batch (e.g., premium, mid-grade, or regular); and

(F) In the case of reformulated gasoline produced through computer-controlled in-line blending, determine the date and time the blending process began and the date and time the blending process ended, unless exempt under paragraph (f)(4) of this section;

(ii) To retain each sample collected pursuant to the requirements of this paragraph (f) for a period of 30 days, except that this period shall be extended to a period of up to 180 days upon request by EPA;

(iii) To submit to EPA periodic reports, as follows:

(A) A report for the period January through March shall be submitted by May 31; a report for the period April through June shall be submitted by August 31; a report for the period July through September shall be submitted by November 30; and a report for the period October through December shall be submitted by February 28;

(B) Each report shall include, for each sample of reformulated gasoline that was analyzed pursuant to the requirements of this paragraph (f):

(1) The results of the independent laboratory's analyses for each property; and

(2) The information specified in paragraph (f)(3)(i) of this section for such sample; and

(iv) To supply to EPA, upon EPA's request, any sample collected or a portion of any such sample.

(4) Any refiner that produces reformulated gasoline using computer-controlled in-line blending equipment is exempt from the independent sampling and testing requirements specified in paragraphs (f) (1) through (3) of this section, provided that such refiner:

(i) Obtains from EPA an exemption from these requirements. In order to seek such an exemption, the refiner shall submit a petition to EPA, such petition to include:

(A) A description of the refiner's computer-controlled in-line blending operation, including a description of:

(1) The location of the operation;

(2) The length of time the refiner has used the operation;

(3) The volumes of gasoline produced using the operation since the refiner began the operation or during the previous three years, whichever is shorter, by grade;

(4) The movement of the gasoline produced using the operation to the point of fungible mixing, including any points where all or portions of the

gasoline produced is accumulated in gasoline storage tanks;

(5) The physical lay-out of the operation;

(6) The automated control system, including the method of monitoring and controlling blend properties and proportions;

(7) Any sampling and analysis of gasoline that is conducted as a part of the operation, including on-line, off-line, and composite, and a description of the methods of sampling, the methods of analysis, the parameters analyzed and the frequency of such analyses, and any written, printed, or computer-stored results of such analyses, including information on the retention of such results;

(8) Any sampling and analysis of gasoline produced by the operation that occurs downstream from the blending operation prior to fungible mixing of the gasoline, including any such sampling and analysis by the refiner and by any purchaser, pipeline or other carrier, or by independent laboratories;

(9) Any quality assurance procedures that are carried out over the operation; and

(10) Any occasion(s) during the previous three years when the refiner adjusted any physical or chemical property of any gasoline produced using the operation downstream from the operation, including the nature of the adjustment and the reason the gasoline had properties that required adjustment; and

(B) A description of the independent audit program of the refiner's computer-controlled in-line blending operation that the refiner proposes will satisfy the requirements of this paragraph (f)(4); and

(ii) Carries out an independent audit program of the refiner's computer-controlled in-line blending operation, such program to include:

(A) For each batch of reformulated gasoline produced using the operation, a review of the documents generated that is sufficient to determine the properties and volume of the gasoline produced;

(B) Audits that occur no less frequently than annually;

(C) Reports of the results of such audits submitted to the refiner, and to EPA by the auditor no later than February 28 of each year;

(D) Audits that are conducted by an auditor that meets the non-debarred criteria specified in § 80.125 (a) and/or (d); and

(iii) Complies with any other requirements that EPA includes as part of the exemption.

(g) *Marking of conventional gasoline.* [Reserved]

(h) *Compliance audits.* Any refiner, importer, and oxygenate blender of any reformulated gasoline or RBOB shall have the reformulated gasoline or RBOB it produced, imported, or blended during each calendar year audited for compliance with the requirements of this subpart D, in accordance with the requirements of subpart F of this part, at the conclusion of each calendar year.

(i) *Exclusion from compliance calculations of gasoline received from others.* Any refiner for each refinery, any oxygenate blender for each oxygenate blending facility, and any importer shall exclude from all compliance calculations the volume and properties of any reformulated gasoline that is produced at another refinery or oxygenate blending facility or imported by another importer.

§ 80.66 Calculation of reformulated gasoline properties.

(a) All volume measurements required by these regulations shall be temperature adjusted to 60 degrees Fahrenheit.

(b) The percentage of oxygen by weight contained in a gasoline blend, based upon its percentage oxygenate by volume and density, shall exclude denaturants and water.

(c) The properties of reformulated gasoline consist of per-gallon values separately and individually determined on a batch-by-batch basis using the methodologies specified in § 80.46 for each of those physical and chemical parameters necessary to determine compliance with the standards to which the gasoline is subject, and per-gallon values for the VOC, NO_X, and toxics emissions performance standards to which the gasoline is subject.

(d) Per-gallon oxygen content shall be determined based upon the weight percent oxygen of a representative sample of gasoline, using the method set forth in § 80.46(g). The total oxygen content associated with a batch of gasoline (in percent-gallons) is calculated by multiplying the weight percent oxygen content times the volume.

(e) Per-gallon benzene content shall be determined based upon the volume percent benzene of a representative sample of a batch of gasoline by the method set forth in § 80.46(e). The total benzene content associated with a batch of gasoline (in percent-gallons) is calculated by multiplying the volume percent benzene content times the volume.

(f) Per-gallon RVP shall be determined based upon the measurement of RVP of a representative sample of a batch of gasoline by the sampling methodologies specified in Appendix D of this part and the testing methodology specified in Appendix E of this part. The total RVP value associated with a batch of gasoline (in RVP-gallons) is calculated by multiplying the RVP times the volume.

(g) (1) Per-gallon values for VOC and NO_X emissions reduction shall be calculated using the methodology specified in § 80.46 that is appropriate for the gasoline.

(2) Per-gallon values for toxic emissions performance reduction shall be established using:

(i) For gasoline subject to the simple model, the methodology under § 80.42 that is appropriate for the gasoline; and

(ii) For gasoline subject to the complex model, the methodology specified in § 80.46 that is appropriate for the gasoline.

(3) The total VOC, NO_X, and toxic emissions performance reduction values associated with a batch of gasoline (in percent reduction-gallons) is calculated by multiplying the per-gallon percent emissions performance reduction times the volume of the batch.

§ 80.67 Compliance on average.

The requirements of this section apply to all reformulated gasoline and RBOB produced or imported for which compliance with one or more of the requirements of § 80.41 is determined on average ("averaged gasoline").

(a) *Compliance survey required in order to meet standards on average.* (1) Any refiner, importer, or oxygenate blender that complies with the compliance survey requirements of § 80.68 has the option of meeting the standards specified in § 80.41 for average compliance in addition to the option of meeting the standards specified in § 80.41 for per-gallon compliance; any refiner, importer, or oxygenate blender that does not comply with the survey requirements must meet the standards specified in § 80.41 for per-gallon compliance, and does not have the option of meeting standards on average.

(2)(i)(A) A refiner or importer that produces or imports reformulated gasoline that exceeds the average standards for oxygen or benzene (but not for other parameters that have average standards) may use such gasoline to offset reformulated gasoline which does not achieve such average standards, but only if the reformulated gasoline that does not achieve such average standards is sold to ultimate consumers in the same covered area as was the reformulated gasoline which

exceeds average standards; provided that

(B) Prior to the beginning of the averaging period when the averaging approach described in paragraph (a)(2)(i)(A) of this section is used, the refiner or importer obtains approval from EPA. In order to seek such approval, the refiner or importer shall submit a petition to EPA, such petition to include:

(1) The identification of the refiner and refinery, or importer, the covered area, and the averaging period; and

(2) A detailed description of the procedures the refiner or importer will use to ensure the gasoline is produced by the refiner or is imported by the importer and is used only in the covered area in question and is not used in any other covered area, and the record keeping, reporting, auditing, and other quality assurance measures that will be followed to establish the gasoline is used as intended; and

(C) The refiner or importer properly completes any requirements that are specified by EPA as conditions for approval of the petition.

(ii) Any refiner or importer that meets the requirements of paragraph (a)(2)(i) of this section will be deemed to have satisfied the compliance survey requirements of § 80.68 for the covered area in question.

(b) *Scope of averaging.* (1) Any refiner shall meet all applicable averaged standards separately for each of the refiner's refineries;

(2)(i) Any importer shall meet all applicable averaged standards on the basis of all averaged reformulated gasoline and RBOB imported by the importer; except that

(ii) Any importer to whom different standards apply for gasoline imported at different facilities by operation of § 80.41(i), shall meet the averaged standards separately for the averaged reformulated gasoline and RBOB imported into each group of facilities that is subject to the same standards; and

(3) Any oxygenate blender shall meet the averaged standard for oxygen separately for each of the oxygenate blender's oxygenate blending facilities, except that any oxygenate blender may group the averaged reformulated gasoline produced at facilities at which gasoline is produced for use in a single covered area.

(c) *RVP and VOC emissions performance reduction compliance on average.* (1) The VOC-controlled reformulated gasoline and RBOB produced at any refinery or imported by any importer during the period January 1 through September 15 of each calendar year which is designated for average compliance for RVP or VOC emissions performance on average must meet the standards for RVP (in the case of a refinery or importer subject to the simple model standards) or the standards for VOC emissions performance reduction (in the case of a refinery or importer subject to the complex model standards) which are applicable to that refinery or importer as follows:

(i) Gasoline and RBOB designated for VOC Control Region 1 must meet the standards for that Region which are applicable to that refinery or importer; and

(ii) Gasoline and RBOB designated for VOC Control Region 2 must meet the standards for that Region which are applicable to that refinery or importer.

(2) In the case of a refinery or importer subject to the simple model standards, each gallon of reformulated gasoline and RBOB designated as being VOC-controlled may not exceed the maximum standards for RVP specified in § 80.41(b) which are applicable to that refiner or importer.

(3) In the case of a refinery or importer subject to the complex model standards, each gallon of reformulated gasoline designated as being VOC-controlled must equal or exceed the minimum standards for VOC emissions performance specified in § 80.41 which are applicable to that refinery or importer.

(d) *Toxics emissions reduction and benzene compliance on average.* (1) The averaging period for the requirements for benzene content and toxics emission performance is January 1 through December 31 of each year.

(2) The reformulated gasoline and RBOB produced at any refinery or imported by any importer during the toxics emissions performance and benzene averaging periods that is designated for average compliance for these parameters shall on average meet the standards specified for toxics emissions performance and benzene in § 80.41 which are applicable to that refinery or importer.

(3) Each gallon of reformulated gasoline may not exceed the maximum standard for benzene content specified in § 80.41 which is applicable to that refinery or importer.

(e) *NO_X compliance on average.* (1) The averaging period for NO_X emissions performance is January 1 through December 31 of each year.

(2) The requirements of this paragraph (e) apply separately to reformulated gasoline and RBOB in the following categories:

(i) All reformulated gasoline and RBOB that is designated as VOC-controlled; and

(ii) All reformulated gasoline and RBOB that is not designated as VOC-controlled.

(3) The reformulated gasoline and RBOB produced at any refinery or imported by any importer during the NO_X averaging period that is designated for average compliance for NO_X shall on average meet the standards for NO_X specified in § 80.41 that are applicable to that refinery or importer.

(4) Each gallon of reformulated gasoline must equal or exceed the minimum standards for NO_X emissions performance specified in § 80.41 which are applicable to that refinery or importer.

(f) *Oxygen compliance on average.* (1) The averaging period for the oxygen content requirements is January 1 through December 31 of each year.

(2) The requirements of this paragraph (f) apply separately to reformulated gasoline in the following categories:

(i) All reformulated gasoline;

(ii) All reformulated gasoline that is not designated as being OPRG; and

(iii) In the case of reformulated gasoline certified under the simple model, that which is designated as VOC-controlled.

(3) The reformulated gasoline produced at any refinery or imported by any importer during the oxygen averaging period that is designated for average compliance for oxygen shall on average meet the standards for oxygen specified in § 80.41 that is applicable to that refinery or importer.

(4) The reformulated gasoline that is produced at any oxygenate blending facility by blending RBOB with oxygenate that is designated for average compliance for oxygen shall on average meet the standards for oxygen specified in § 80.41 that is applicable to that oxygenate blending facility.

(5) Each gallon of reformulated gasoline must meet the applicable minimum requirements, and in the case of simple model reformulated gasoline the minimum and maximum requirements, for oxygen content specified in § 80.41.

(g) *Compliance calculation.* To determine compliance with the averaged standards in § 80.41, any refiner for each of its refineries at which averaged reformulated gasoline or RBOB is produced, any oxygenate blender for each of its oxygenate blending facilities at which oxygen averaged reformulated gasoline is produced, and any importer that imports averaged reformulated gasoline or RBOB shall, for each averaging period and for each portion of

gasoline for which standards must be separately achieved, and for each relevant standard, calculate:

(1)(i) The compliance total using the following formula:

$$\text{COMPLIANCE TOTAL} = \left(\sum_{i=1}^{n} V_i\right) \times \text{std}$$

where

V_i=the volume of gasoline batch i
std=the standard for the parameter being evaluated
n=the number of batches of gasoline produced or imported during the averaging period

and

(ii) The actual total using the following formula:

$$\text{ACTUAL TOTAL} = \sum_{i=1}^{n} (V_i \times \text{parm}_i)$$

where

V_i=the volume of gasoline batch i
parm_i=the parameter value of gasoline batch i
n=the number of batches of gasoline produced or imported during the averaging period

(2) For each standard, compare the actual total with the compliance total.

(3) For the VOC, NO_X, and toxics emissions performance and oxygen standards, the actual totals must be equal to or greater than the compliance totals to achieve compliance.

(4) For RVP and benzene standards, the actual total must be equal to or less than the compliance totals to achieve compliance.

(5) If the actual total for the oxygen standard is less than the compliance total, or if the actual total for the benzene standard is greater than the compliance total, credits for these parameters must be obtained from another refiner, importer or (in the case of oxygen) oxygenate blender in order to achieve compliance:

(i) The total number of oxygen credits required to achieve compliance is calculated by subtracting the actual total from the compliance total oxygen; and

(ii) The total number of benzene credits required to achieve compliance is calculated by subtracting the compliance total from the actual total benzene.

(6) If the actual total for the oxygen standard is greater than the compliance total, or if the actual total for the benzene standard is less than the compliance totals, credits for these parameters are generated:

(i) The total number of oxygen credits which may be traded to another refinery, importer, or oxygenate blender is calculated by subtracting the compliance total from the actual total for oxygen; and

(ii) The total number of benzene credits which may be traded to another refinery or importer is calculated by subtracting the actual total from the compliance total for benzene.

(h) *Credit transfers.* (1) Compliance with the averaged standards specified in § 80.41 for oxygen and benzene (but for no other standards or requirements) may be achieved through the transfer of oxygen and benzene credits provided that:

(i) The credits were generated in the same averaging period as they are used;

(ii) The credit transfer takes place no later than fifteen working days following the end of the averaging period in which the reformulated gasoline credits were generated;

(iii) The credits are properly created;

(iv) The credits are transferred directly from the refiner, importer, or oxygenate blender that creates the credits to the refiner, importer, or oxygenate blender that uses the credits to achieve compliance;

(v) Oxygen credits are generated, transferred, and used:

(A) In the case of gasoline subject to the simple model standards, only in the following categories:

(1) VOC-controlled, non-OPRG;
(2) Non-VOC-controlled, non-OPRG;
(3) Non-VOC-controlled, OPRG; and
(4) VOC-controlled, OPRG; and

(B) In the case of gasoline subject to the complex model standards, only in the following categories:

(1) OPRG; and
(2) Non-OPRG;

(vi) Oxygen credits generated from gasoline subject to the complex model standards are not used to achieve compliance for gasoline subject to the simple model standards;

(vii) Oxygen credits are not used to achieve compliance with the minimum oxygen content standards in § 80.41; and

(viii) Benzene credits are not used to achieve compliance with the maximum benzene content standards in § 80.41.

(2) No party may transfer any credits to the extent such a transfer would result in the transferor having a negative credit balance at the conclusion of the averaging period for which the credits were transferred. Any credits transferred in violation of this paragraph are improperly created credits.

(3) In the case of credits that were improperly created, the following provisions apply:

(i) Improperly created credits may not be used to achieve compliance, regardless of a credit transferee's good faith belief that it was receiving valid credits;

(ii) No refiner, importer, or oxygenate blender may create, report, or transfer improperly created credits; and

(iii) Where any credit transferor has in its balance at the conclusion of any averaging period both credits which were properly created and credits which were improperly created, the properly created credits will be applied first to any credit transfers before the transferor may apply any credits to achieve its own compliance.

(i) *Average compliance for reformulated gasoline produced or imported before January 1, 1995.* In the case of any reformulated gasoline that is intended to be used beginning January 1, 1995, but that is produced or imported prior to that date:

(1) Any refiner or importer may meet standards specified in § 80.41 for average compliance for such gasoline, provided the refiner or importer has the option of meeting standards on average for 1995 under paragraph (a) of this section, and provided the refiner or importer elects to be subject to average standards under § 80.65(c)(3); and

(2) Any average compliance gasoline under paragraph (i)(1) of this section shall be combined with average compliance gasoline produced during 1995 for purposes of compliance calculations under paragraph (g) of this section.

§ 80.68 Compliance surveys.

(a) *Compliance survey option 1.* In order to satisfy the compliance survey requirements, any refiner, importer, or oxygenate blender shall properly conduct a program of compliance surveys in accordance with a survey program plan which has been approved by the Administrator of EPA in each covered area which is supplied with any gasoline for which compliance is achieved on average that is produced by that refiner or oxygenate blender or imported by that importer. Such approval shall be based upon the survey program plan meeting the following criteria:

(1) The survey program shall consist of at least four surveys which shall occur during the following time periods: one survey during the period January 1 through May 31; two surveys during the period June 1 through September 15; and one survey during the period September 16 through December 31.

(2) The survey program shall meet the criteria stated in paragraph (c) of this section.

(3) In the event that any refiner, importer, or oxygenate blender fails to

properly carry out an approved survey program, the refiner, importer, or oxygenate blender shall achieve compliance with all applicable standards on a per-gallon basis for the calendar year in which the failure occurs, and may not achieve compliance with any standard on an average basis during this calendar year. This requirement to achieve compliance per-gallon shall apply *ab initio* to the beginning of any calendar year in which the failure occurs, regardless of when during the year the failure occurs.

(b) *Compliance survey option 2.* A refiner, importer, or oxygenate blender shall be deemed to have satisfied the compliance survey requirements described in paragraph (a) of this section if a comprehensive program of surveys is properly conducted in accordance with a survey program plan which has been approved by the Administrator of EPA. Such approval shall be based upon the survey program plan meeting the following criteria:

(1) The initial schedule for the conduct of surveys shall be as follows:

(i) 120 surveys shall be conducted in 1995;

(ii) 80 surveys shall be conducted in 1996;

(iii) 60 surveys shall be conducted in 1997;

(iv) 50 surveys shall be conducted in 1998 and thereafter.

(2) This initial survey schedule shall be adjusted as follows:

(i) In the event one or more ozone nonattainment areas in addition to the nine specified in § 80.70, opt into the reformulated gasoline program, the number of surveys to be conducted in the year the area or areas opt into the program and in each subsequent year shall be increased according to the following formula:

$$ANS_i = \left(\frac{V_{opt-in}}{V_{orig}} \times NS_i \right) + NS_i$$

where:

ANS_i = the adjusted number of surveys for year i; i = the opt-in year and each subsequent year

NS_i = the number of surveys according to the schedule in paragraph (b)(1) of this section in year i; i = the opt-in year and each subsequent year

V_{opt-in} = the total volume of gasoline supplied to the opt-in covered areas in the year preceding the year of the opt-in

V_{orig} = the total volume of gasoline supplied to the original nine covered areas in the year preceding the year of the opt-in

(ii) In the event that any covered area fails a survey or survey series according to the criteria set forth in paragraph (c) of this section, the annual decreases in the numbers of surveys prescribed by paragraph (b)(1) of this section, as adjusted by paragraph (b)(2)(i) of this section, shall be adjusted as follows in the year following the year of the failure. Any such adjustment to the number of surveys shall remain in effect so long as any standard for the affected covered area has been adjusted to be more stringent as a result of a failed survey or survey series. The adjustments shall be calculated according to the following formula:

$$ANS_i = \left(\frac{V_{failed}}{V_{total}} \times \left(NS_{i-1} - NS_i \right) \right) + NS_i$$

where:

ANS_i = the adjusted number of surveys in year i; i = the year after the failure and each subsequent year

V_{failed} = the total volume of gasoline supplied to the covered area which failed the survey or survey series in the year of the failure

V_{total} = the total volume of gasoline supplied to all covered areas in the year of the failure

NS_i = the number of surveys in year i according to the schedule in paragraph (b)(1) of this section and as adjusted by paragraph (b)(2)(i) of this section; i = the year after the failure and each subsequent year

(3) The survey program shall meet the criteria stated in paragraph (c) of this section.

(4) On each occasion the comprehensive survey program does not occur as specified in the approved plan with regard to any covered area:

(i) Each refiner, importer, and oxygenate blender who supplied any reformulated gasoline or RBOB to the covered area and who has not satisfied the survey requirements described in paragraph (a) of this section shall be deemed to have failed to carry out an approved survey program; and

(ii) The covered area will be deemed to have failed surveys for VOC and NO_x emissions performance, and survey series for benzene and oxygen, and toxic and NO_x emissions performance.

(c) *General survey requirements.* (1) During the period January 1, 1995 through December 31, 1997:

(i) Any sample taken from a retail gasoline storage tank for which the three most recent deliveries were of gasoline designated as meeting:

(A) Simple model standards shall be considered a "simple model sample"; or

(B) Complex model standards shall be considered a "complex model sample."

(ii) A survey shall consist of the combination of a simple model portion and a complex model portion, as follows:

(A) The simple model portion of a survey shall consist of all simple model samples that are collected pursuant to the applicable survey design in a single covered area during any consecutive seven-day period and that are not excluded under paragraph (c)(6) of this section.

(B) The complex model portion of a survey shall consist of all complex model samples that are collected pursuant to the applicable survey design in a single covered area during any consecutive seven-day period and that are not excluded under paragraph (c)(6) of this section.

(iii) (A) The simple model portion of each survey shall be representative of all gasoline certified using the simple model which is being dispensed in the covered area.

(B) The complex model portion of each survey shall be representative of all gasoline certified using the complex model which is being dispensed in the covered area.

(2) Beginning on January 1, 1998:

(i) A survey shall consist of all samples that are collected pursuant to the applicable survey design in a single covered area during any consecutive seven-day period and that are not excluded under paragraph (c)(6) of this section.

(ii) A survey shall be representative of all gasoline which is being dispensed in the covered area.

(3) A VOC survey, and prior to January 1, 2000, a NO_X survey, shall consist of any survey conducted during the period June 1 through September 15.

(4) (i) A toxics, oxygen, and benzene survey series shall consist of all surveys conducted in a single covered area during a single calendar year.

(ii) A NO_X survey series shall consist of all surveys conducted in a single covered area during the periods January 1 through May 31, and September 16 through December 31 during a single calendar year.

(5) (i) Each simple model sample included in a survey shall be analyzed for oxygenate type and content, benzene content, aromatic hydrocarbon content, and RVP in accordance with the methodologies specified in § 80.46; and

(ii) Each complex model sample included in a survey shall be analyzed for oxygenate type and content, olefins, benzene, sulfur, and aromatic hydrocarbons, E–200, E–300, and RVP in accordance with the methodologies specified in § 80.46.

(6) (i) The results of each survey shall be based upon the results of the analysis of each sample collected during the course of the survey, unless the sample violates the applicable per-gallon maximum or minimum standards for the parameter being evaluated plus any enforcement tolerance that applies to the parameter (*e.g.*, a sample that violates the benzene per-gallon maximum plus any benzene enforcement tolerance but meets other per-gallon maximum and minimum standards would be excluded from the benzene survey, but would be included in the surveys for parameters other than benzene).

(ii) Any sample from a survey that violates any standard under § 80.41, or that constitutes evidence of the violation of any prohibition or requirement under this subpart D, may be used by the Administrator in an enforcement action for such violation.

(7) Each laboratory at which samples in a survey are analyzed shall participate in a correlation program with EPA to ensure the validity of analysis results.

(8) (i) The results of each simple model VOC survey shall be determined as follows:

(A) For each simple model sample from the survey, the VOC emissions reduction percentage shall be determined based upon the tested values for RVP and oxygen for that sample as applied to the VOC emissions reduction equation at § 80.42(a)(1) for VOC-Control Region 1 and § 80.42(a)(2) for VOC-Control Region 2;

(B) The VOC emissions reduction survey standard applicable to each covered area shall be calculated by using the VOC emissions equation at § 80.42(a)(1) with RVP=7.2 and OXCON=2.0 for covered areas located in VOC-Control Region 1 and using the VOC emissions equation at § 80.42(a)(2) with RVP=8.1 and OXCON=2.0 for covered areas located in VOC-Control Region 2; and

(C) The covered area shall have failed the simple model VOC survey if the VOC emissions reduction average of all survey samples is less than VOC emissions reduction survey standard calculated under paragraph (c)(8)(i)(B) of this section.

(ii) The results of each complex model VOC emissions reduction survey shall be determined as follows:

(A) For each complex model sample from the survey, the VOC emissions reduction percentage shall be determined based upon the tested parameter values for that sample and the appropriate methodology for calculating VOC emissions reduction at § 80.47; and

(B) The covered area shall have failed the complex model VOC survey if the VOC emissions reduction percentage average of all survey samples is less than the applicable per-gallon standard for VOC emissions reduction.

(9) (i) The results of each simple model toxics emissions reduction survey series conducted in any covered area shall be determined as follows:

(A) For each simple model sample from the survey series, the toxics emissions reduction percentage shall be determined based upon the tested parameter values for that sample and the appropriate methodology for calculating toxics emissions performance reduction at § 80.42.

(B) The annual average of the toxics emissions reduction percentages for all samples from a survey series shall be calculated according to the following formula:

$$AATER = \left(\left(\frac{\sum_{i=1}^{n_1} TER_{1,i}}{n_1}\right) \times 0.468\right) + \left(\left(\frac{\sum_{i=1}^{n_2} TER_{2,i}}{n_2}\right) \times 0.532\right)$$

where

AATER = the annual average toxics emissions reduction

$TER_{1,i}$ = the toxics emissions reduction for sample i of gasoline collected during the high ozone season

$TER_{2,i}$ = the toxics emissions reduction for sample i of gasoline collected outside the high ozone season

n_1 = the number of samples collected during the high ozone season

n_2 = the number of samples collected outside the high ozone season

(C) The covered area shall have failed the simple model toxics survey series if the annual average toxics emissions reduction is less than the simple model per-gallon standard for toxics emissions reduction.

(ii) The results of each complex model toxics emissions reduction survey series conducted in any covered area shall be determined as follows:

(A) For each complex model sample from the survey series, the toxics emissions reduction percentage shall be determined based upon the tested parameter values for that sample and the appropriate methodology for calculating toxics emissions reduction at § 80.47;

(B) The annual average of the toxics emissions reduction percentages for all samples from a survey series shall be calculated according to the formula specified in paragraph (c)(8)(i)(B) of this section; and

(C) The covered area shall have failed the complex model toxics survey series if the annual average toxics emissions reduction is less than the applicable

per-gallon complex model standard for toxics emissions reduction.

(10) The results of each NO_X emissions reduction survey and survey series shall be determined as follows:

(i) For each sample from the survey and survey series, the NO_X emissions reduction percentage shall be determined based upon the tested parameter values for that sample and the appropriate methodology for calculating NO_X emissions reduction at § 80.47; and

(ii) The covered area shall have failed the NO_X survey or survey series if the NO_X emissions reduction percentage average for all survey samples is less than the applicable Phase I or Phase II complex model per-gallon standard for NO_X emissions reduction.

(11) For any benzene content survey series conducted in any covered area the average benzene content for all samples from the survey series shall be calculated. If this annual average is greater than 1.000 percent by volume, the covered area shall have failed a benzene survey series.

(12) For any oxygen content survey series conducted in any covered area the average oxygen content for all samples from the survey series shall be calculated. If this annual average is less than 2.00 percent by weight, the covered area shall have failed an oxygen survey series.

Each survey program shall:

(i) Be planned and conducted by a person who is independent of the refiner or importer (the surveyor). In order to be considered independent:

(A) The surveyor shall not be an employee of any refiner or importer;

(B) The surveyor shall be free from any obligation to or interest in any refiner or importer; and

(C) The refiner or importer shall be free from any obligation to or interest in the surveyor; and

(ii) Include procedures for selecting sample collection locations, numbers of samples, and gasoline compositions which will result in:

(A) Simple model surveys representing all gasoline certified using the simple model being dispensed at retail outlets within the covered area during the period of the survey; and

(B) Complex model surveys representing all gasoline certified using the complex model being dispensed at retail outlets within the covered area during the period of the survey; and

(iii) Include procedures such that the number of samples included in each survey assures that:

(A) In the case of simple model surveys, the average levels of oxygen, benzene, RVP, and aromatic hydrocarbons are determined with a 95% confidence level, with error of less than 0.1 psi for RVP, 0.05% for benzene (by volume), and 0.1% for oxygen (by weight); and

(B) In the case of complex model surveys, the average levels of oxygen, benzene, RVP, aromatic hydrocarbons, olefins, T–50, T–90, and sulfur are determined with a 95% confidence level, with error of less than 0.1 psi for RVP, 0.05% for benzene (by volume), 0.1% for oxygen (by weight), 0.5% for aromatic hydrocarbons (by volume), 0.5% for olefins (by volume), 5 °F. for T–50 and T–90, and 10 ppm for sulfur; and

(iv) Require that the surveyor shall:

(A) Not inform anyone, in advance, of the date or location for the conduct of any survey;

(B) Upon request by EPA made within thirty days following the submission of the report of a survey, provide a duplicate of any gasoline sample taken during that survey to EPA at a location to be specified by EPA each sample to be identified by the name and address of the facility where collected, the date of collection, and the classification of the sample as simple model or complex model; and

(C) At any time permit any representative of EPA to monitor the conduct of the survey, including sample collection, transportation, storage, and analysis; and

(v) Require the surveyor to submit to EPA a report of each survey, within thirty days following completion of the survey, such report to include the following information:

(A) The identification of the person who conducted the survey;

(B) An attestation by an officer of the surveyor company that the survey was conducted in accordance with the survey plan and that the survey results are accurate;

(C) If the survey was conducted for one refiner or importer, the identification of that party;

(D) The identification of the covered area surveyed;

(E) The dates on which the survey was conducted;

(F) The address of each facility at which a gasoline sample was collected, the date of collection, and the classification of the sample as simple model or complex model;

(G) The results of the analyses of simple model samples for oxygenate type and oxygen weight percent, benzene content, aromatic hydrocarbon content, and RVP, and the calculated toxics emission reduction percentage;

(H) The results of the analyses of complex model samples for oxygenate type and oxygen weight percent, benzene, aromatic hydrocarbon, and olefin content, E–200, E–300, and RVP, and the calculated VOC, NO_X, and toxics emissions reduction percentages;

(I) The name and address of each laboratory where gasoline samples were analyzed;

(J) A description of the methodology utilized to select the locations for sample collection and the numbers of samples collected;

(K) For any samples which were excluded from the survey, a justification for such exclusion; and

(L) The average toxics emissions reduction percentage for simple model samples and the percentage for complex model samples, the average benzene and oxygen percentages, for each survey conducted during the period June 1 through September 15, the average VOC emissions reduction percentage for simple model samples and the percentage for complex model samples, and beginning on January 1, 2000, the average NO_X emissions reduction percentage.

(14) Each survey shall be conducted at a time and in a covered area selected by EPA no earlier than two weeks before the date of the survey.

(15) The procedure for seeking EPA approval for a survey program plan shall be as follows:

(i) The survey program plan shall be submitted to the Administrator of EPA for EPA's approval no later than September 1 of the year preceding the year in which the surveys will be conducted; and

(ii) Such submittal shall be signed by a responsible corporate officer of the refiner, importer, or oxygenate blender, or in the case of a comprehensive survey program plan, by an officer of the organization coordinating the survey program.

(16) (i) No later than December 1 of the year preceding the year in which the surveys will be conducted, the contract with the surveyor to carry out the entire survey plan shall be in effect, and an amount of money necessary to carry out the entire survey plan shall be paid to the surveyor or placed into an escrow account with instructions to the escrow agent to pay the money over to the surveyor during the course of the conduct of the survey plan.

(ii) No later than December 15 of the year preceding the year in which the surveys will be conducted, the Administrator of EPA shall be given a copy of the contract with the surveyor, proof that the money necessary to carry out the plan has either been paid to the surveyor or placed into an escrow account, and if placed into an escrow

account, a copy of the escrow agreement.

§ 80.69 Requirements for downstream oxygenate blending.

The requirements of this section apply to all reformulated gasoline blendstock for oxygenate blending, or RBOB, to which oxygenate is added at any oxygenate blending facility.

(a) *Requirements for refiners and importers.* For any RBOB produced or imported, the refiner or importer of the RBOB shall:

(1) Produce or import the RBOB such that, when blended with a specified type and percentage of oxygenate, it meets the applicable standards for reformulated gasoline;

(2) In order to determine the properties of RBOB for purposes of calculating compliance with per-gallon or averaged standards, conduct tests on each batch of the RBOB by:

(i) Adding the specified type and amount of oxygenate to a representative sample of the RBOB; and

(ii) Determining the properties and characteristics of the resulting gasoline using the methodology specified in § 80.65(e);

(3) Carry out the independent analysis requirements specified in § 80.65(f);

(4) Determine properties of the RBOB which are sufficient to allow parties downstream from the refinery or import facility to establish, through sampling and testing, if the RBOB has been altered or contaminated such that it will not meet the applicable reformulated gasoline standards subsequent to the addition of the specified type and amount of oxygenate;

(5) Transfer ownership of the RBOB only to an oxygenate blender who is registered with EPA as such, or to an intermediate owner with the restriction that it only be transferred to a registered oxygenate blender;

(6) Have a contract with each oxygenate blender who receives any RBOB produced or imported by the refiner or importer that requires the oxygenate blender, or, in the case of a contract with an intermediate owner, that requires the intermediate owner to require the oxygenate blender to:

(i) Comply with blender procedures that are specified by the contract and are calculated to assure blending with the proper type and amount of oxygenate;

(ii) Allow the refiner or importer to conduct quality assurance sampling and testing of the reformulated gasoline produced by the oxygenate blender;

(iii) Stop selling any gasoline found to not comply with the standards under which the RBOB was produced or imported; and

(iv) Carry out the quality assurance sampling and testing that this section requires the oxygenate blender to conduct;

(7) Conduct a quality assurance sampling and testing program to be carried out at the facilities of each oxygenate blender who blends any RBOB produced or imported by the refiner or importer with any oxygenate, to determine whether the reformulated gasoline which has been produced through blending complies with the applicable standards, using the methodology specified in § 80.46 for this determination.

(i) The sampling and testing program shall be conducted as follows:

(A) All samples shall be collected subsequent to the addition of oxygenate, and either:

(*1*) Prior combining the resulting gasoline with any other gasoline; or

(*2*) In the case of truck splash blending, subsequent to the delivery of the gasoline to a retail outlet or wholesale purchaser-consumer facility provided that the three most recent deliveries to the retail outlet or wholesale purchaser facility were of gasoline produced using that refiner's or importer's RBOB, and provided that any discrepancy found through the retail outlet or wholesale purchaser facility sampling is followed-up with measures reasonably designed to discover the cause of the discrepancy; and

(B) Sampling and testing shall be at one of the following rates:

(*1*) In the case of RBOB which is blended with oxygenate in a gasoline storage tank, a rate of not less than one sample for every 400,000 barrels of RBOB produced or imported by that refiner or importer that is blended by that blender, or one sample every month, whichever is more frequent; or

(*2*) In the case of RBOB which is blended with oxygenate in gasoline delivery trucks through the use of computer-controlled in-line blending equipment, a rate of not less than one sample for every 200,000 barrels of RBOB produced or imported by that refiner or importer that is blended by that blender, or one sample every three months, whichever is more frequent; or

(*3*) In the case of RBOB which is blended with oxygenate in gasoline delivery trucks without the use of computer-controlled in-line blending equipment, a rate of not less than one sample for each 50,000 barrels of RBOB produced or imported by that refiner or importer which is blended, or one sample per month, whichever is more frequent;

(ii) In the event the test results for any sample indicate the gasoline does not comply with applicable standards (within the ranges specified in § 80.70(b)(2)(i)), the refiner or importer shall:

(A) Immediately take steps to stop the sale of the gasoline that was sampled;

(B) Take steps which are reasonably calculated to determine the cause of the noncompliance and to prevent future instances of noncompliance;

(C) Increase the rate of sampling and testing to one of the following rates:

(*1*) In the case of RBOB which is blended with oxygenate in a gasoline storage tank, a rate of not less than one sample for every 200,000 barrels of RBOB produced or imported by that refiner or importer that is blended by that blender, or one sample every two weeks, whichever is more frequent; or

(*2*) In the case of RBOB which is blended with oxygenate in gasoline delivery trucks through the use of computer-controlled in-line blending equipment, a rate of not less than one sample for every 100,000 barrels of RBOB produced or imported by that refiner or importer that is blended by that blender, or one sample every two months, whichever is more frequent; or

(*3*) In the case of RBOB which is blended with oxygenate in gasoline delivery trucks without the use of computer-controlled in-line blending equipment, a rate of not less than one sample for each 25,000 barrels of RBOB produced or imported by that refiner or importer which is blended, or one sample every two weeks, whichever is more frequent;

(D) Continue the increased frequency of sampling and testing until the results of ten consecutive samples and tests indicate the gasoline complies with applicable standards, at which time the sampling and testing may be conducted at the original frequency;

(iii) This quality assurance program is in addition to any quality assurance requirements carried out by other parties;

(8) A refiner or importer of RBOB may, in lieu of the contractual and quality assurance requirements specified in paragraphs (a) (6) and (7) of this section, base its compliance calculations on the following assumptions:

(i) In the case of RBOB designated for any-oxygenate, assume that ethanol will be added;

(ii) In the case of RBOB designated for ether-only, assume that MTBE will be added; and

(iii) In the case of any-oxygenate and ether-only designated RBOB, assume that the volume of oxygenate added will be such that the resulting reformulated

gasoline will have an oxygen content of 2.0 weight percent;

(9) Any refiner or importer who does not meet the contractual and quality assurance requirements specified in paragraphs (a) (6) and (7) of this section, and who does not designate its RBOB as ether-only or any-oxygenate, shall base its compliance calculations on the assumption that 4.0 volume percent ethanol is added to the RBOB; and

(10) Specify in the product transfer documentation for the RBOB each oxygenate type or types and amount or range of amounts which is consistent with the designation of the RBOB as any-oxygenate, or ether-only, and which, if blended with the RBOB will result in reformulated gasoline which:

(i) Has VOC, toxics, or NO_x emissions reduction percentages which are no lower than the percentages that formed the basis for the refiner's or importer's compliance determination for these parameters;

(ii) Has a benzene content and RVP level which are no higher than the values for these characteristics that formed the basis for the refiner's or importer's compliance determinations for these parameters; and

(iii) Will not cause the reformulated gasoline to violate any standard specified in § 80.41.

(b) *Requirements for oxygenate blenders.* For all RBOB received by any oxygenate blender, the oxygenate blender shall:

(1) Add oxygenate of the type(s) and amount (or within the range of amounts) specified in the product transfer documents for the RBOB;

(2) Designate each batch of the resulting reformulated gasoline as meeting the oxygen standard per-gallon or on average;

(3) Meet the standard requirements specified in § 80.65(c) and § 80.67(e), the record keeping requirements specified in § 80.74, and the reporting requirements specified in § 80.75; and

(4) In the case of each batch of reformulated gasoline which is designated for compliance with the oxygen standard on average:

(i) Determine the volume and the weight percent oxygen of the batch using the testing methodology specified in § 80.46;

(ii) Assign a number to the batch (the "batch number"), beginning with the number one for the first batch produced each calendar year and each subsequent batch during the calendar year being assigned the next sequential number, and such numbers to be preceded by the oxygenate blender's registration number, the facility number, and the second two digits of the year in which the batch was produced (e.g., 4321–4321–95–001, 4321–4321–95–002, etc.); and

(iii) Meet the compliance audit requirements specified in § 80.65(h).

(c) *Additional requirements for terminal storage tank blending.* Any oxygenate blender who produces reformulated gasoline by blending any oxygenate with any RBOB in any gasoline storage tank, other than a truck used for delivering gasoline to retail outlets or wholesale purchaser-consumer facilities, shall, for each batch of reformulated gasoline so produced determine the oxygen content and volume of this gasoline prior to the gasoline leaving the oxygenate blending facility, using the methodology specified in § 80.46.

(d) *Additional requirements for distributors dispensing RBOB into trucks for blending.* Any distributor who dispenses any RBOB into any truck which delivers gasoline to retail outlets or wholesale purchaser-consumer facilities, shall for such RBOB so dispensed:

(1) Transfer the RBOB only to an oxygenate blender who has registered with the Administrator of EPA as such;

(2) Transfer any RBOB designated as ether-only RBOB only if the distributor has a reasonable basis for knowing the oxygenate blender will blend an oxygenate other than ethanol with the RBOB; and

(3) Obtain from the oxygenate blender the oxygenate blender's EPA registration number.

(e) *Additional requirements for oxygenate blenders who blend oxygenate in trucks.* Any oxygenate blender who obtains any RBOB in any gasoline delivery truck shall:

(1) On each occasion it obtains RBOB from a distributor, supply the distributor with the oxygenate blender's EPA registration number;

(2) Conduct a quality assurance sampling and testing program to determine whether the proper type and amount of oxygenate is added to RBOB. The program shall be conducted as follows:

(i) All samples shall be collected subsequent to the addition of oxygenate, and either:

(A) Prior combining the resulting gasoline with any other gasoline; or

(B) Subsequent to the delivery of the gasoline to a retail outlet or wholesale purchaser-consumer facility provided that the three most recent deliveries to the retail outlet or wholesale purchaser facility were of gasoline that was produced by that oxygenate blender and that had the same oxygenate requirements, and provided that any discrepancy in oxygenate type or amount found through the retail outlet or wholesale purchaser facility sampling is followed-up with measures reasonably designed to discover the cause of the discrepancy;

(ii) Sampling and testing shall be at one of the following rates:

(A) In the case computer-controlled in-line blending is used, a rate of not less than one sample per each five hundred occasions RBOB and oxygenate are loaded into a truck by that oxygenate blender, or one sample every three months, whichever is more frequent; or

(B) In the case computer-controlled in-line blending is not used, a rate of not less than one sample per each one hundred occasions RBOB and oxygenate are blended in a truck by that oxygenate blender, or one sample per month, whichever is more frequent;

(iii) Sampling and testing shall be of the gasoline produced through one of the RBOB-oxygenate blends produced by that oxygenate blender;

(iv) Samples shall be analyzed for oxygenate type and oxygen content using the testing methodology specified at § 80.46; and

(v) In the event the testing results for any sample indicate the gasoline does not contain the specified type and amount of oxygenate (within the ranges specified in § 80.70(b)(2)(i)):

(A) Immediately stop selling (or where possible, to stop any transferee of the gasoline from selling) the gasoline which was sampled;

(B) Take steps to determine the cause of the noncompliance;

(C) Increase the rate of sampling and testing to one of the following rates:

(*1*) In the case computer-controlled in-line blending is used, a rate of not less than one sample per each two hundred and fifty occasions RBOB and oxygenate are loaded into a truck by that oxygenate blender, or one sample every six weeks, whichever is more frequent; or

(*2*) In the case computer-controlled in-line blending is not used, a rate of not less than one sample per each fifty occasions RBOB and oxygenate are blended in a truck by that oxygenate blender, or one sample every two weeks, whichever is more frequent; and

(D) This increased frequency shall continue until the results of ten consecutive samples and tests indicate the gasoline complies with applicable standards, at which time the frequency may revert to the original frequency.

(f) *Oxygenate blending with OPRG.* Notwithstanding the requirements for and restrictions on oxygenate blending provided in this section, any oxygenate blender may blend oxygenate with reformulated gasoline that is designated

as OPRG, without meeting the record keeping and reporting requirements that otherwise apply to oxygenate blenders, provided that the reformulated gasoline so produced is:

(1) Used in an oxygenated fuels program control area during an oxygenated fuels program control period; and

(2) "Substantially similar" under section 211(f)(1) of the Clean Air Act, or is permitted under a waiver granted by the Administrator under the authority of section 211(f)(4) of the Clean Air Act.

§ 80.70 Covered areas.

For purposes of subparts D, E, and F of this part, the covered areas are as follows:

(a) The Los Angeles-Anaheim-Riverside, California, area, comprised of:

(1) Los Angeles County;

(2) Orange County;

(3) Ventura County;

(4) That portion of San Bernadino County that lies south of latitude 35 degrees, 10 minutes north and west of longitude 115 degrees, 45 minutes west; and

(5) That portion of Riverside County, which lies to the west of a line described as follows:

(i) Beginning at the northeast corner of Section 4, Township 2 South, Range 5 East, a point on the boundary line common to Riverside and San Bernadino Counties;

(ii) Then southerly along section lines to the centerline of the Colorado River Aqueduct;

(iii) Then southeasterly along the centerline of said Colorado River Aqueduct to the southerly line of Section 36, Township 3 South, Range 7 East;

(iv) Then easterly along the township line to the northeast corner of Section 6, Township 4 South, Range 9 East;

(v) Then southerly along the easterly line of Section 6 to the southeast corner thereof;

(vi) Then easterly along section lines to the northeast corner of Section 10, Township 4 South, Range 9 East;

(vii) Then southerly along section lines to the southeast corner of Section 15, Township 4 South, Range 9 East;

(viii) Then easterly along the section lines to the northeast corner of Section 21, Township 4 South, Range 10 East;

(ix) Then southerly along the easterly line of Section 21 to the southeast corner thereof;

(x) Then easterly along the northerly line of Section 27 to the northeast corner thereof;

(xi) Then southerly along section lines to the southeast corner of Section 34, Township 4 South, Range 10 East;

(xii) Then easterly along the township line to the northeast corner of Section 2, Township 5 South, Range 10 East;

(xiii) Then southerly along the easterly line of Section 2, to the southeast corner thereof;

(xiv) Then easterly along the northerly line of Section 12 to the northeast corner thereof;

(xv) Then southerly along the range line to the southwest corner of Section 18, Township 5 South, Range 11 East;

(xvi) Then easterly along section lines to the northeast corner of Section 24, Township 5 South, Range 11 East;

(xvii) Then southerly along the range line to the southeast corner of Section 36, Township 8 South, Range 11 East, a point on the boundary line common to Riverside and San Diego Counties.

(b) San Diego County, California.

(c) The Greater Connecticut area, comprised of:

(1) The following Connecticut counties:

(i) Hartford;

(ii) Middlesex;

(iii) New Haven;

(iv) New London;

(v) Tolland; and

(vi) Windham; and

(2) Portions of certain Connecticut counties, described as follows:

(i) In Fairfield County, the City of Shelton; and

(ii) In Litchfield County, all cities and townships except the towns of Bridgewater and New Milford.

(d) The New York-Northern New Jersey-Long Island-Connecticut area, comprised of:

(1) Portions of certain Connecticut counties, described as follows:

(i) In Fairfield County, all cities and townships except Shelton City; and

(ii) In Litchfield County, the towns of Bridgewater and New Milford;

(2) The following New Jersey counties:

(i) Bergen;

(ii) Essex;

(iii) Hudson;

(iv) Hunterdon;

(v) Middlesex;

(vi) Monmouth;

(vii) Morris;

(viii) Ocean;

(ix) Passaic;

(x) Somerset;

(xi) Sussex; and

(xii) Union; and

(3) The following New York counties:

(i) Bronx;

(ii) Kings;

(iii) Nassau;

(iv) New York (Manhattan);

(v) Queens;

(vi) Richmond;

(vii) Rockland;

(viii) Suffolk; and

(ix) Westchester.

(e) The Philadelphia-Wilmington-Trenton area, comprised of:

(1) The following Delaware counties:

(i) New Castle; and

(ii) Kent; and

(2) Cecil County, Maryland; and

(3) The following New Jersey counties:

(i) Burlington;

(ii) Camden;

(iii) Cumberland;

(iv) Gloucester;

(v) Mercer; and

(vi) Salem; and

(4) The following Pennsylvania counties:

(i) Bucks;

(ii) Chester;

(iii) Delaware;

(iv) Montgomery; and

(v) Philadelphia.

(f) The Chicago-Gary-Lake County, Illinois-Indiana-Wisconsin area, comprised of:

(1) The following Illinois counties:

(i) Cook;

(ii) Du Page;

(iii) Kane;

(iv) Lake;

(v) McHenry; and

(vi) Will; and

(2) Portions of certain Illinois counties, described as follows:

(i) In Grundy County, the townships of Aux Sable and Goose Lake; and

(ii) In Kendall County, Oswego township; and

(3) The following Indiana counties:

(i) Lake; and

(ii) Porter.

(g) The Baltimore, Maryland area, comprised of:

(1) The following Maryland counties:

(i) Anne Arundel;

(ii) Baltimore;

(iii) Carroll;

(iv) Harford; and

(v) Howard; and

(2) The City of Baltimore.

(h) The Houston-Galveston-Brazoria, Texas area, comprised of the following Texas counties:

(1) Brazoria;

(2) Fort Bend;

(3) Galveston;

(4) Harris;

(5) Liberty;

(6) Montgomery;

(7) Waller; and

(8) Chambers.

(i) The Milwaukee-Racine, Wisconsin area, comprised of the following Wisconsin counties:

(1) Kenosha;

(2) Milwaukee;

(3) Ozaukee;

(4) Racine;

(5) Washington; and
(6) Waukesha.

(j) The ozone nonattainment areas listed in this paragraph (j) are covered areas beginning on January 1, 1995. The geographic extent of each covered area listed in this paragraph (j) shall be the nonattainment area boundaries as specified in 40 CFR Part 81, subpart C:

(1) Sussex County, Delaware;
(2) District of Columbia portion of the Washington ozone nonattainment area;
(3) The following Kentucky counties:
(i) Boone;
(ii) Campbell;
(iii) Jefferson; and
(iv) Kenton;
(4) Portions of the following Kentucky counties:
(i) Bullitt; and
(ii) Oldham;
(5) The following Maine counties:
(i) Androscoggin;
(ii) Cumberland;
(iii) Kennebec;
(iv) Knox;
(v) Lincoln;
(vi) Sagadahoc;
(vii) York;
(viii) Hancock; and
(ix) Waldo;
(6) The following Maryland counties:
(i) Calvert;
(ii) Charles;
(iii) Frederick;
(iv) Montgomery;
(v) Prince Georges;
(vi) Queen Anne's; and
(vii) Kent;
(7) The entire State of Massachusetts;
(8) The following New Hampshire counties:
(i) Strafford;
(ii) Merrimack;
(iii) Hillsborough; and
(iv) Rockingham;
(9) The following New Jersey counties:
(i) Atlantic;
(ii) Cape May; and
(iii) Warren;
(10) The following New York counties:
(i) Albany;
(ii) Dutchess;
(iii) Erie;
(iv) Essex;
(v) Greene;
(vi) Jefferson;
(vii) Montgomery;
(viii) Niagara;
(ix) Rensselaer;
(x) Saratoga; and
(xi) Schenectady;
(11) The following Pennsylvania counties:
(i) Alleheny;
(ii) Armstrong;
(iii) Beaver;
(iv) Berks;
(v) Butler;
(vi) Fayette;
(vii) Washington;
(viii) Westmoreland;
(ix) Adams;
(x) Blair;
(xi) Cambria;
(xii) Carbon;
(xiii) Columbia;
(xiv) Cumberland;
(xv) Dauphin;
(xvi) Erie;
(xvii) Lackawanna;
(xviii) Lancaster;
(xix) Lebanon;
(xx) Lehigh;
(xxi) Luzerne;
(xxii) Mercer;
(xxiii) Monroe;
(xxiv) Northampton;
(xxv) Perry;
(xxvi) Somerset;
(xxvii) Wyoming; and
(xxviii) York;
(12) The entire State of Rhode Island;
(13) The following Texas counties:
(i) Collin;
(ii) Dallas;
(iii) Denton; and
(iv) Tarrant;
(14) The following Virginia areas:
(i) Alexandria;
(ii) Arlington County;
(iii) Fairfax;
(iv) Fairfax County;
(v) Falls Church;
(vi) Loudoun County;
(vii) Manassas;
(viii) Manassas Park;
(ix) Prince William County;
(x) Stafford County;
(xi) Charles City County;
(xii) Chesterfield County;
(xiii) Colonial Heights;
(xiv) Hanover County;
(xv) Henrico County;
(xvi) Hopewell;
(xvii) Richmond County;
(xviii) Chesapeake;
(xix) Hampton;
(xx) James City County;
(xxi) Newport News;
(xxii) Norfolk;
(xxiii) Poquoson;
(xxiv) Portsmouth;
(xxv) Suffolk;
(xxvi) Virginia Beach;
(xxvii) Williamsburg; and
(xxviii) York County; and
(15) Portions of Smyth County of Virginia.

(k) Any other area classified under 40 CFR part 81, subpart C as a marginal, moderate, serious, or severe ozone nonattainment area may be included on petition of the governor of the state in which the area is located. Effective one year after an area has been reclassified as a severe ozone nonattainment area, such severe area shall also be a covered area for purposes of this subpart D.

§ 80.71 Descriptions of VOC-control regions.

(a) Reformulated gasoline covered areas which are located in the following states are included in VOC-Control Region 1:

Alabama
Arizona
Arkansas
California
Colorado
District of Columbia
Florida
Georgia
Kansas
Louisiana
Maryland
Mississippi
Missouri
Nevada
New Mexico
North Carolina
Oklahoma
Oregon
South Carolina
Tennessee
Texas
Utah
Virginia

(b) Reformulated gasoline covered areas which are located in the following states are included in VOC-Control Region 2:

Connecticut
Delaware
Idaho
Illinois
Indiana
Iowa
Kentucky
Maine
Massachusetts
Michigan
Minnesota
Montana
Nebraska
New Hampshire
New Jersey
New York
North Dakota
Ohio
Pennsylvania
Rhode Island
South Dakota
Vermont
Washington
West Virginia
Wisconsin
Wyoming

(c) Reformulated gasoline covered areas which are partially in VOC Control Region 1 and partially in VOC Control Region 2 shall be included in VOC Control Region 1, except in the

case of the Philadelphia-Wilmington-Trenton CMSA which shall be included in VOC Control Region 2.

§ 80.72 [Reserved]

§ 80.73 Inability to produce conforming gasoline in extraordinary circumstances.

In appropriate extreme and unusual circumstances (e.g., natural disaster or Act of God) which are clearly outside the control of the refiner, importer, or oxygenate blender and which could not have been avoided by the exercise of prudence, diligence, and due care, EPA may permit a refiner, importer, or oxygenate blender, for a brief period, to distribute gasoline which does not meet the requirements for reformulated gasoline, if:

(a) It is in the public interest to do so (e.g., distribution of the nonconforming gasoline is necessary to meet projected shortfalls which cannot otherwise be compensated for);

(b) The refiner, importer, or oxygenate blender exercised prudent planning and was not able to avoid the violation and has taken all reasonable steps to minimize the extent of the nonconformity;

(c) The refiner, importer, or oxygenate blender can show how the requirements for reformulated gasoline will be expeditiously achieved;

(d) The refiner, importer, or oxygenate blender agrees to make up air quality detriment associated with the nonconforming gasoline, where practicable; and

(e) The refiner, importer, or oxygenate blender pays to the U.S. Treasury an amount equal to the economic benefit of the nonconformity minus the amount expended, pursuant to paragraph (d) of this section, in making up the air quality detriment.

§ 80.74 Record keeping requirements.

All parties in the gasoline distribution network, as described in this section, shall maintain records containing the information as required in this section. These records shall be retained for a period of five years from the date of creation, and shall be delivered to the Administrator of EPA or to the Administrator's authorized representative upon request.

(a) *All regulated parties.* Any refiner, importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale-purchaser who sells, offers for sale, dispenses, supplies, offers for supply, stores, transports, or causes the transportation of any reformulated gasoline or RBOB, shall maintain records containing the following information:

(1) The product transfer documentation for all reformulated gasoline or RBOB for which the party is the transferor or transferee; and

(2) For any sampling and testing on RBOB or reformulated gasoline:

(i) The location, date, time, and storage tank or truck identification for each sample collected;

(ii) The identification of the person who collected the sample and the person who performed the testing;

(iii) The results of the tests; and

(iv) The actions taken to stop the sale of any gasoline found not to be in compliance, and the actions taken to identify the cause of any noncompliance and prevent future instances of noncompliance.

(b) *Refiners and importers.* In addition to other requirements of this section, any refiner and importer shall, for all reformulated gasoline and RBOB produced or imported, maintain records containing the following information:

(1) Results of the tests to determine reformulated gasoline properties and characteristics specified in § 80.65;

(2) Results of the tests for the presence of the marker specified in § 80.82;

(3) The volume of gasoline associated with each of the above test results using the method normally employed at the refinery or import facility for this purpose;

(4) In the case of RBOB:

(i) The results of tests to ensure that, following blending, RBOB meets applicable standards; and

(ii) Each contract with each oxygenate blender to whom the refiner or importer transfers RBOB; or

(iii) Compliance calculations described in § 80.69(a)(8) based on an assumed addition of oxygenate;

(5) In the case of any refinery or importer subject to the simple model standards, the calculations used to determine the 1990 baseline levels of sulfur, T–90, and olefins, and the calculations used to determine compliance with the standards for these parameters; and

(6) In the case of any refinery or importer subject to the complex model standards before January 1, 1998, the calculations used to determine the baseline levels of VOC, toxics, and NO_x emissions performance.

(c) *Refiners, importers and oxygenate blenders of averaged gasoline.* In addition to other requirements of this section, any refiner, importer, and oxygenate blender who produces or imports any reformulated gasoline for which compliance with one or more applicable standard is determined on average shall maintain records containing the following information:

(1) The calculations used to determine compliance with the relevant standards on average, for each averaging period and for each quantity of gasoline for which standards must be separately achieved; and

(2) For any credits bought, sold, traded or transferred pursuant to § 80.67(h), the dates of the transactions, the names and EPA registration numbers of the parties involved, and the number(s) and type(s) of credits transferred.

(d) *Oxygenate blenders.* In addition to other requirements of this section, any oxygenate blender who blends any oxygenate with any RBOB shall, for each occasion such terminal storage tank blending occurs, maintain records containing the following information:

(i) The date, time, location, and identification of the blending tank or truck in which the blending occurred;

(ii) The volume and oxygenate requirements of the RBOB to which oxygenate was added; and

(iii) The volume, type, and purity of the oxygenate which was added, and documents which show the source(s) of the oxygenate used.

(e) *Distributors who dispense RBOB into trucks.* In addition to other requirements of this section, any distributor who dispenses any RBOB into a truck used for delivering gasoline to retail outlets shall, for each occasion RBOB is dispensed into such a truck, obtain records identifying:

(1) The name and EPA registration number of the oxygenate blender that received the RBOB; and

(2) The volume and oxygenate requirements of the RBOB dispensed.

(f) *Conventional gasoline requirement.* In addition to other requirements of this section, any refiner and importer shall, for all conventional gasoline produced or imported, maintain records showing the blending of the marker required under § 80.82 into conventional gasoline, and the results of the tests showing the concentration of this marker subsequent to its addition.

(g) *Retailers before January 1, 1998.* Prior to January 1, 1998 any retailer that sells or offers for sale any reformulated gasoline shall maintain at each retail outlet the product transfer documentation for the most recent three deliveries to the retail outlet of each grade of reformulated gasoline sold or offered for sale at the retail outlet, and shall make such documentation available to any person conducting any gasoline compliance survey pursuant to § 80.68.

§ 80.75 Reporting requirements.

Any refiner, importer, and oxygenate blender shall report as specified in this section, and shall report such other information as the Administrator may require.

(a) *Quarterly reports for reformulated gasoline.* Any refiner or importer that produces or imports any reformulated gasoline or RBOB, and any oxygenate blender that produces reformulated gasoline meeting the oxygen standard on average, shall submit quarterly reports to the Administrator for each refinery or oxygenate blending facility at which such reformulated gasoline or RBOB was produced and for all such reformulated gasoline or RBOB imported by each importer.

(1) The quarterly reports shall be for all such reformulated gasoline or RBOB produced or imported during the following time periods:

(i) The first quarterly report shall include information for reformulated gasoline or RBOB produced or imported from January 1 through March 31, and shall be submitted by May 31 of each year beginning in 1995;

(ii) The second quarterly report shall include information for reformulated gasoline or RBOB produced or imported from April 1 through June 30, and shall be submitted by August 31 of each year beginning in 1995;

(iii) The third quarterly report shall include information for reformulated gasoline or RBOB produced or imported from July 1 through September 30, and shall be submitted by November 30 of each year beginning in 1995; and

(iv) The fourth quarterly report shall include information for reformulated gasoline or RBOB produced or imported from October 1 through December 31, and shall be submitted by the last day of February of each year beginning in 1996.

(2) The following information shall be included in each quarterly report for each batch of reformulated gasoline or RBOB which is included under paragraph (a)(1) of this section:

(i) The batch number;

(ii) The date of production;

(iii) The volume of the batch;

(iv) The grade of gasoline produced (i.e., premium, mid-grade, or regular);

(v) For any refiner or importer:

(A) Each designation of the gasoline, pursuant to § 80.65; and

(B) The properties, pursuant to §§ 80.65 and 80.66;

(vi) For any importer, the PADD in which the import facility is located; and

(vii) For any oxygenate blender, the oxygen content.

(3) Information pertaining to gasoline produced or imported during 1994 shall be included in the first quarterly report in 1995.

(b) *RVP averaging reports.* (1) Any refiner or importer that produced or imported any reformulated gasoline or RBOB under the simple model that was to meet RVP standards on average ("averaged reformulated gasoline") shall submit to the Administrator, with the third quarterly report, a report for each refinery or importer for such averaged reformulated gasoline or RBOB produced or imported during the previous RVP averaging period. This information shall be reported separately for the following categories:

(i) Gasoline or RBOB which is designated as VOC-controlled intended for areas in VOC-Control Region 1; and

(ii) Gasoline or RBOB which is designated as VOC-controlled intended for VOC-Control Region 2.

(2) The following information shall be reported:

(i) The total volume of averaged reformulated gasoline or RBOB in gallons;

(ii) The compliance total value for RVP; and

(iii) The actual total value for RVP.

(c) *VOC emissions performance averaging reports.* (1) Any refiner or importer that produced or imported any reformulated gasoline or RBOB under the complex model that was to meet the VOC emissions performance standards on average ("averaged reformulated gasoline") shall submit to the Administrator, with the third quarterly report, a report for each refinery or importer for such averaged reformulated gasoline produced or imported during the previous VOC averaging period. This information shall be reported separately for the following categories:

(i) Gasoline or RBOB which is designated as VOC-controlled intended for areas in VOC-Control Region 1; and

(ii) Gasoline or RBOB which is designated as VOC-controlled intended for VOC-Control Region 2.

(2) The following information shall be reported:

(i) The total volume of averaged reformulated gasoline or RBOB in gallons;

(ii) The compliance total value for VOC emissions performance; and

(iii) The actual total value for VOC emissions performance.

(d) *Benzene content averaging reports.* (1) Any refiner or importer that produced or imported any reformulated gasoline or RBOB that was to meet the benzene content standards on average ("averaged reformulated gasoline") shall submit to the Administrator, with the fourth quarterly report, a report for each refinery or importer for such averaged reformulated gasoline that was produced or imported during the previous toxics averaging period.

(2) The following information shall be reported:

(i) The volume of averaged reformulated gasoline or RBOB in gallons;

(ii) The compliance total content of benzene;

(iii) The actual total content of benzene;

(iv) The number of benzene credits generated as a result of actual total benzene being less than compliance total benzene;

(v) The number of benzene credits required as a result of actual total benzene being greater than compliance total benzene;

(vi) The number of benzene credits transferred to another refinery or importer; and

(vii) The number of benzene credits obtained from another refinery or importer.

(e) *Toxics emissions performance averaging reports.* (1) Any refiner or importer that produced or imported any reformulated gasoline or RBOB that was to meet the toxics emissions performance standards on average ("averaged reformulated gasoline") shall submit to the Administrator, with the fourth quarterly report, a report for each refinery or importer for such averaged reformulated gasoline that was produced or imported during the previous toxics averaging period.

(2) The following information shall be reported:

(i) The volume of averaged reformulated gasoline or RBOB in gallons;

(ii) The compliance value for toxics emissions performance; and

(iii) The actual value for toxics emissions performance.

(f) *Oxygen averaging reports.* (1) Any refiner, importer, or oxygenate blender that produced or imported any reformulated gasoline that was to meet the oxygen standards on average ("averaged reformulated gasoline") shall submit to the Administrator, with the fourth quarterly report, a report for each refinery and oxygenate blending facility at which such averaged reformulated gasoline was produced and for all such averaged reformulated gasoline imported by each importer during the previous oxygen averaging period.

(2)(i) The following information shall be included in each report required by paragraph (f)(1) of this section:

(A) The total volume of averaged RBOB in gallons;

(B) The total volume of averaged reformulated gasoline in gallons;

(C) The compliance total content for oxygen;

(D) The actual total content for oxygen;

(E) The number of oxygen credits generated as a result of actual total oxygen being greater than compliance total oxygen;

(F) The number of oxygen credits required as a result of actual total oxygen being less than compliance total oxygen;

(G) The number of oxygen credits transferred to another refinery, importer, or oxygenate blending facility; and

(H) The number of oxygen credits obtained from another refinery, importer, or oxygenate blending facility.

(ii) The information required by paragraph (f)(2)(i) of this section shall be reported separately for the following categories:

(A) For gasoline subject to the simple model standards:

(*1*) Gasoline designated as VOC-controlled and non-oxygenated fuels program reformulated gasoline (OPRG);

(*2*) Gasoline which is designated as VOC-controlled and non-OPRG;

(*3*) Gasoline which is designated as non-VOC-controlled and OPRG; and

(*4*) Gasoline which is designated as non-VOC-controlled and non-OPRG; and

(B) For gasoline subject to the Phase I or Phase II complex model standards:

(*1*) Gasoline which is designated as OPRG; and

(*2*) Gasoline which is designated as non-OPRG.

(iii) The results of the compliance calculations required in § 80.67(f) shall also be included in each report required by paragraph (f)(1) of this section, for each of the following categories:

(A) All reformulated gasoline;

(B) Gasoline which is designated as non-OPRG; and

(C) For gasoline subject to the simple model standards, gasoline which is designated as VOC-controlled.

(g) *NO_X emissions performance averaging reports.* (1) Any refiner or importer that produced or imported any reformulated gasoline or RBOB that was to meet the NO_X emissions performance standard on average ("averaged reformulated gasoline") shall submit to the Administrator, with the fourth quarterly report, a report for each refinery or importer for such averaged reformulated gasoline that was produced or imported during the previous NO_X averaging period.

(2) The following information shall be reported:

(i) The volume of averaged reformulated gasoline or RBOB in gallons;

(ii) The compliance value for NO_X emissions performance; and

(iii) The actual value for NO_X emissions performance.

(3) The information required by paragraph (g)(2) of this section shall be reported separately for the following categories:

(i) Gasoline and RBOB which is designated as VOC-controlled; and

(ii) Gasoline and RBOB which is not designated as VOC-controlled.

(h) *Credit transfer reports.* (1) As an additional part of the fourth quarterly report required by this section, any refiner, importer, and oxygenate blender shall, for each refinery, importer, or oxygenate blending facility, supply the following information for any oxygen or benzene credits that are transferred from or to another refinery, importer, or oxygenate blending facility:

(i) The names, EPA-assigned registration numbers and facility identification numbers of the transferor and transferee of the credits;

(ii) The number(s) and type(s) of credits that were transferred; and

(iii) The date(s) of transaction(s).

(2) For purposes of this paragraph (h), oxygen credit transfers shall be reported separately for each of the following oxygen credit types:

(i) For gasoline subject to the simple model standards:

(A) VOC controlled, oxygenated fuels program reformulated gasoline (OPRG) oxygen credits;

(B) VOC controlled, non-OPRG oxygen credits;

(C) Non-VOC controlled, OPRG oxygen credits; and

(D) Non-VOC controlled, non-OPRG oxygen credits; and

(ii) For gasoline subject to the Phase I or Phase II complex model standards:

(A) OPRG oxygen credits; and

(B) Non-OPRG oxygen credits.

(i) *Covered areas of gasoline use report.* Any refiner or oxygenate blender that produced or imported any reformulated gasoline that was to meet any reformulated gasoline standard on average ("averaged reformulated gasoline") shall, for each refinery and oxygenate blending facility at which such averaged reformulated gasoline was produced submit to the Administrator, with the fourth quarterly report, a report that contains the identity of each covered area that was supplied with any averaged reformulated gasoline produced at each refinery or blended by each oxygenate blender during the previous year.

(j) *Additional reporting requirement for certain importers.* In the case of any importer to whom different standards apply for gasoline imported at different facilities, by operation of § 80.41(m)(2)(iii), such importer shall submit separate reports for gasoline imported into facilities subject to different standards.

(k) *Reporting requirements for early use of the complex model.* Any refiner for any refinery, or any importer, that elects to be subject to complex model standards under § 80.41(i)(1) shall report such election in writing to the Administrator no later than sixty days prior to the beginning of the calendar year during which such standards would apply. This report shall include the refinery's or importer's baseline values for VOC, NO_X, and toxics emissions performance, in milligrams per mile.

(l) *Reports for per-gallon compliance gasoline.* In the case of reformulated gasoline or RBOB for which compliance with each of the standards set forth in § 80.41 is achieved on a per-gallon basis, the refiner, importer, or oxygenate blender shall submit to the Administrator, by the last day of February of each year beginning in 1996, a report of the volume of each designated reformulated gasoline or RBOB produced or imported during the previous calendar year for which compliance is achieved on a per-gallon basis, and a statement that each gallon of this reformulated gasoline or RBOB met the applicable standards.

(m) *Reports of compliance audits.* Any refiner, importer, and oxygenate blender shall cause to be submitted to the Administrator, by May 31 of each year, the report of the compliance audit required by § 80.65(h).

(n) *Report submission.* The reports required by this section shall be:

(1) Submitted on forms and following procedures specified by the Administrator; and

(2) Signed and certified as correct by the owner or a responsible corporate officer of the refiner, importer, or oxygenate blender.

§ 80.76 Registration of refiners, importers or oxygenate blenders.

(a) Registration with the Administrator of EPA is required for any refiner and importer, and any oxygenate blender that produces any reformulated gasoline.

(b) Any person required to register shall do so by November 1, 1994, or not later than three months in advance of the first date that such person will produce or import reformulated gasoline or RBOB, or conventional gasoline or applicable blendstocks, whichever is later.

(c) Registration shall be on forms prescribed by the Administrator, and shall include the following information:

(1) The name, business address, contact name, and telephone number of the refiner, importer, or oxygenate blender;

(2) The address and physical location where the documents which are required to be retained by § 80.74 or 80.104 will be kept by the refiner, importer, or oxygenate blender; and

(3) For each separate refinery and oxygenate blending facility:

(i) The facility name, physical location, contact name, telephone number, type of facility, and whether the facility will produce reformulated gasoline, RBOB, conventional gasoline or applicable blendstocks;

(ii) The identity of each covered area which is supplied with any reformulated gasoline or RBOB produced at the refinery or blending facility or imported by the importer; and

(iii) The name, address, contact name and telephone number of the independent laboratory used to meet the independent analysis requirements of § 80.65(f).

(d) EPA will supply a registration number to each refiner, importer, and oxygenate blender, and a facility registration number for each refinery and oxygenate blending facility that is identified, which shall be used in all reports to the Administrator.

(e)(1) Any refiner, importer, or oxygenate blender shall submit updated registration information to the Administrator within thirty days of any occasion when the registration information previously supplied becomes incomplete or inaccurate; except that

(2) EPA must be notified in writing of any change in designated independent laboratory at least thirty days in advance of such change.

§ 80.77 Product transfer documentation.

On each occasion when any person transfers custody or title to any reformulated gasoline or RBOB, other than when gasoline is sold or dispensed for use in motor vehicles at a retail outlet or wholesale purchaser-consumer facility, the transferor shall provide to the transferee documents which include the following information:

(a) The name and address of the transferor;

(b) The name and address of the transferee;

(c) The volume of gasoline which is being transferred;

(d) The location of the gasoline at the time of the transfer;

(e) The date of the transfer;

(f) The proper identification of the gasoline as conventional or reformulated;

(g) In the case of reformulated gasoline or RBOB:

(1) The proper identification as:

(i)(A) VOC-controlled for VOC-Control Region 1; or VOC-controlled for VOC-Control Region 2; or Not VOC-controlled; or

(B) In the case of gasoline or RBOB that is VOC-controlled for VOC-Control Region 1, the gasoline may be identified as suitable for use either in VOC-Control Region 1 or VOC-Control Region 2;

(ii) Oxygenated fuels program reformulated gasoline; or Not oxygenated fuels program reformulated gasoline; and

(iii) Prior to January 1, 1998, certified under the simple model standards or certified under the complex model standards; and

(2) The minimum and/or maximum standards with which the gasoline or RBOB conforms for:

(i) Benzene content;

(ii) Except for RBOB, oxygen content;

(iii) In the case of gasoline subject to the simple model standards, RVP;

(iv) In the case of gasoline subject to the complex model standards:

(A) Prior to January 1, 1998, the VOC and NO_X emissions performance minimums in milligrams per mile; and

(B) Beginning on January 1, 1998, the VOC and NO_x emissions performance reduction percentage minimums;

(h) Prior to January 1, 1998, in the case of gasoline or RBOB subject to the complex model standards:

(1) The name and EPA registration number of the refinery at which the gasoline was produced, or importer that imported the gasoline; and

(2) Instructions that the gasoline or RBOB may not be combined with any other gasoline or RBOB that was produced at any other refinery or was imported by any other importer;

(i) In the case of reformulated gasoline blendstock for which oxygenate blending is intended:

(1) Identification of the product as RBOB and not reformulated gasoline;

(2) The designation of the RBOB as suitable for blending with:

(A) Any-oxygenate;

(B) Ether-only; or

(C) Other specified oxygenate type(s) and amount(s); and

(3) The oxygenate type(s) and amount(s) which the RBOB requires in order to meet the properties claimed by the refiner or importer of the RBOB;

(4) Instructions that the RBOB may not be combined with any other RBOB except other RBOB having the same requirements for oxygenate type(s) and amount(s), or, prior to blending, with reformulated gasoline; and

(j) In the case of transferrers or transferees who are refiners, importers or oxygenate blenders, the EPA-assigned registration number of those persons.

§ 80.78 Controls and prohibitions on reformulated gasoline.

(a) *Prohibited activities.* (1) No person may manufacture and sell or distribute, offer for sale or distribution, dispense, supply, offer for supply, store, transport, or cause the transportation of any gasoline represented as reformulated and intended for sale or use in any covered area:

(i) Unless each gallon of such gasoline meets the applicable benzene maximum standard specified in § 80.41;

(ii) Unless each gallon of such gasoline meets the applicable oxygen content:

(A) Minimum standard specified in § 80.41; and

(B) In the case of gasoline subject to simple model standards, maximum standard specified in § 80.41;

(iii) Unless each gallon is properly designated as oxygenated fuels program reformulated gasoline, within any oxygenated gasoline program control areas during the oxygenated gasoline control period;

(iv) Unless the product transfer documentation for such gasoline complies with the requirements in § 80.77; and

(v) During the period May 1 through September 15 for all persons except retailers and wholesale purchaser-consumers, and during the period June 1 through September 15 for all persons including retailers and wholesale purchaser-consumers:

(A) Unless each gallon of such gasoline is VOC-controlled for the proper VOC Control Region, except that gasoline designated for VOC-Control Region 1 may be used in VOC-Control Region 2;

(B) Unless each gallon of such gasoline that is subject to simple model standards has an RVP which is below the applicable RVP maximum specified in § 80.41;

(C) Unless each gallon of such gasoline that is subject to complex model standards has a VOC and NO_x emissions reduction percentage which is above the applicable minimum specified in § 80.41.

(2) No refiner or importer may produce or import any gasoline represented as reformulated or RBOB, and intended for sale or use in any covered area:

(i) Unless such gasoline meets the definition of reformulated gasoline or RBOB; and

(ii) Unless the properties of such gasoline or RBOB correspond to the product transfer documents.

(3) No person may manufacture and sell or distribute, or offer for sale or distribution, dispense, supply, or offer for supply, store, transport or cause the transportation of gasoline represented as conventional which does not contain at least the minimum concentration of the conventional gasoline marker specified in § 80.82.

(4) Gasoline shall be presumed to be intended for sale or use in a covered area unless:

(i) Product transfer documentation as described in § 80.77 accompanying such gasoline clearly indicates the gasoline is intended for sale and use only outside any covered area; or

(ii) The gasoline is contained in the storage tank of a retailer or wholesale purchaser-consumer outside any covered area.

(5) No person may combine any reformulated gasoline with any non-oxygenate blendstock except:

(i) A person that meets each requirement specified for a refiner under this subpart; and

(ii) The blendstock that is added to reformulated gasoline meets all reformulated gasoline standards without regard to the properties of the reformulated gasoline to which the blendstock is added.

(6) No person may add any oxygenate to reformulated gasoline, except that oxygenate may be added to reformulated gasoline that is designated as OPRG provided that such gasoline is used in an oxygenated fuels program control area during an oxygenated fuels control period.

(7) No person may combine any reformulated gasoline blendstock for oxygenate blending with any other gasoline, blendstock, or oxygenate except:

(i) Oxygenate of the type and amount (or within the range of amounts) specified by the refiner or importer at the time the RBOB was produced or imported; or

(ii) Other RBOB for which the same oxygenate type and amount (or range of amounts) was specified by the refiner or importer.

(8) No person may combine any VOC-controlled reformulated gasoline that is produced using ethanol with any VOC-controlled reformulated gasoline that is produced using any other oxygenate during the period January 1 through September 15.

(9) Prior to January 1, 1998:

(i) No person may combine any reformulated gasoline or RBOB that is subject to the simple model standards with any reformulated gasoline or RBOB that is subject to the complex model standards, except that such gasolines may be combined at a retail outlet or wholesale purchaser-consumer facility;

(ii) No person may combine any reformulated gasoline subject to the complex model standards that is produced at any refinery or is imported by any importer with any other reformulated gasoline that is produced at a different refinery or is imported by a different importer, unless the other refinery or importer has an identical baseline for meeting complex model standards during this period; and

(iii) No person may combine any RBOB subject to the complex model standards that is produced at any refinery or is imported by any importer with any RBOB that is produced at a different refinery or is imported by a different importer, unless the other refinery or importer has an identical baseline for meeting complex model standards during this period.

(10) No person may combine any reformulated gasoline with any conventional gasoline and sell the resulting mixture as reformulated gasoline.

(b) *Liability.* Liability for violations of paragraph (a) of this section shall be determined according to the provisions of § 80.79.

(c) *Determination of compliance.* Compliance with the standards listed in paragraph (a) of this section shall be determined by use of one of the testing methodologies specified in § 80.46, except that where test results using the testing methodologies specified in § 80.46 are not available or where such test results are available but are in question, EPA may establish noncompliance with standards using any information, including the results of testing using methods that are not included in § 80.46.

(d) *Dates controls and prohibitions begin.* The controls and prohibitions specified in paragraph (a) of this section apply at any location other than retail outlets and wholesale purchaser-consumer facilities on or after December 1, 1994, at any location on or after January 1, 1995.

§ 80.79 Liability for violations of the prohibited activities.

(a) *Persons liable.* Where the gasoline contained in any storage tank at any facility owned, leased, operated, controlled or supervised by any refiner, importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer is found in violation of the prohibitions described in § 80.78(a), the following persons shall be deemed in violation:

(1) Each refiner, importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer who owns, leases, operates, controls or supervises the facility where the violation is found;

(2) Each refiner or importer whose corporate, trade, or brand name, or whose marketing subsidiary's corporate, trade, or brand name, appears at the facility where the violation is found;

(3) Each refiner, importer, oxygenate blender, distributor, and reseller who manufactured, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of any gasoline which is in the storage tank containing gasoline found to be in violation; and

(4) Each carrier who dispensed, supplied, stored, or transported any gasoline which is in the storage tank containing gasoline found to be in violation, provided that EPA demonstrates, by reasonably specific showings by direct or circumstantial evidence, that the carrier caused the violation.

(b) *Defenses for prohibited activities.* (1) In any case in which a refiner, importer, oxygenate blender, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer would be in violation under paragraph (a) of this section, it shall be deemed not in violation if it can demonstrate:

(i) That the violation was not caused by the regulated party or its employee or agent;

(ii) That product transfer documents account for all of the gasoline in the storage tank found in violation and indicate that the gasoline met relevant requirements; and

(iii)(A) That it has conducted a quality assurance sampling and testing program, as described in paragraph (c) of this section; except that

(B) A carrier may rely on the quality assurance program carried out by another party, including the party that owns the gasoline in question, provided that the quality assurance program is carried out properly.

(2)(i) Where a violation is found at a facility which is operating under the corporate, trade or brand name of a refiner, that refiner must show, in addition to the defense elements required by paragraph (b)(1) of this section, that the violation was caused by:

(A) An act in violation of law (other than the Act or this part), or an act of sabotage or vandalism;

(B) The action of any reseller, distributor, oxygenate blender, carrier,

or a retailer or wholesale purchaser-consumer supplied by any of these persons, in violation of a contractual undertaking imposed by the refiner designed to prevent such action, and despite periodic sampling and testing by the refiner to ensure compliance with such contractual obligation; or

(C) The action of any carrier or other distributor not subject to a contract with the refiner but engaged by the refiner for transportation of gasoline, despite specification or inspection of procedures and equipment by the refiner which are reasonably calculated to prevent such action.

(ii) In this paragraph (b), to show that the violation "was caused" by any of the specified actions the party must demonstrate by reasonably specific showings, by direct or circumstantial evidence, that the violation was caused or must have been caused by another.

(c) *Quality assurance program.* In order to demonstrate an acceptable quality assurance program for reformulated gasoline at all points in the gasoline distribution network, other than at retail outlets and wholesale purchaser-consumer facilities, a party must present evidence:

(1) Of a periodic sampling and testing program to determine if the applicable maximum and/or minimum standards for oxygen, benzene, RVP, or VOC or NO_X emission performance are met; and

(2) That on each occasion when gasoline is found in noncompliance with one of the requirements referred to in paragraph (c)(1) of this section:

(i) The party immediately ceases selling, offering for sale, dispensing, supplying, offering for supply, storing, transporting, or causing the transportation of the violating product; and

(ii) The party promptly remedies the violation (such as by removing the violating product or adding more complying product until the applicable standards are achieved).

§ 80.80 Penalties.

(a) Any person that violates any requirement or prohibition of subpart D, E, or F of this part shall be liable to the United States for a civil penalty of not more than the sum of $25,000 for every day of each such violation and the amount of economic benefit or savings resulting from each such violation.

(b) Any violation of a standard for average compliance during any averaging period, or for per-gallon compliance for any batch of gasoline, shall constitute a separate violation for each and every standard that is violated.

(c) Any violation of any standard based upon a multi-day averaging period shall constitute a separate day of violation for each and every day in the averaging period. Any violation of any credit creation or credit transfer requirement shall constitute a separate day of violation for each and every day in the averaging period.

(d)(1)(i) Any violation of any per-gallon standard or of any per-gallon minimum or per-gallon maximum, other than the standards specified in paragraph (e) of this section, shall constitute a separate day of violation for each and every day such gasoline giving rise to such violations remains any place in the gasoline distribution system, beginning on the day that the gasoline that violates such per-gallon standard is produced or imported and distributed and/or offered for sale, and ending on the last day that any such gasoline is offered for sale or is dispensed to any ultimate consumer for use in any motor vehicle; unless

(ii) The violation is corrected by altering the properties and characteristics of the gasoline giving rise to the violations and any mixture of gasolines that contains any of the gasoline giving rise to the violations such that the said gasoline or mixture of gasolines has the properties and characteristics that would have existed if the gasoline giving rise to the violations had been produced or imported in compliance with all per-gallon standards.

(2) For the purposes of this paragraph (d), the length of time the gasoline in question remained in the gasoline distribution system shall be deemed to be twenty-five days; unless the respective party or EPA demonstrates by reasonably specific showings, by direct or circumstantial evidence, that the gasoline giving rise to the violations remained any place in the gasoline distribution system for fewer than or more than twenty-five days.

(e)(1) Any reformulated gasoline that is produced or imported and offered for sale and for which the requirements to determine the properties and characteristics under § 80.65(f) is not met, or any conventional gasoline for which the refiner or importer does not sample and test to determine the relevant properties, shall be deemed:

(i)(A) Except as provided in paragraph (e)(1)(i)(B) of this section to have the following properties:

Sulfur content—970 ppm
Benzene content—5 vol %
RVP (summer)—11 psi
50% distillation—250 °F
90% distillation—375 °F
Oxygen content—0 wt %
Aromatics content—50 vol %
Olefins content—26 vol %

(B) To have the following properties in paragraph (e)(1)(i)(A) of this section unless the respective party or EPA demonstrates by reasonably specific showings, by direct or circumstantial evidence, different properties for the gasoline giving rise to the violations; and

(ii) In the case of reformulated gasoline, to have been designated as meeting all applicable standards on a per-gallon basis.

(2) For the purposes of paragraph (e)(1) of this section, any refiner or importer that fails to meet the independent analysis requirements of § 80.65(f) may not use the results of sampling and testing that is carried out by that refiner or importer as direct or circumstantial evidence of the properties of the gasoline giving rise to the violations, unless this failure was not caused by the refiner or importer.

(f) Any violation of any affirmative requirement or prohibition not included in paragraph (c) or (d) of this section shall constitute a separate day of violation for each and every day such affirmative requirement is not properly accomplished, and/or for each and every day the prohibited activity continues. For those violations that may be ongoing under subparts D, E, and F of this part, each and every day the prohibited activity continues shall constitute a separate day of violation.

§ 80.81 Enforcement exemptions for California gasoline.

(a)(1) The requirements of subparts D, E, and F of this part are modified in accordance with the provisions contained in this section in the case of California gasoline.

(2) For the purposes of this section, "California gasoline" means any gasoline that is sold, intended for sale, or made available for sale as a motor vehicle fuel in the State of California and that:

(i) Is manufactured within the State of California;

(ii) Is imported into the State of California from outside the United States; or

(iii) Is imported into the State of California from inside the United States and that is manufactured at a refinery that does not produce reformulated gasoline.

(b)(1) Any refiner, importer, or oxygenate blender of gasoline that is sold, intended for sale, or made available for sale as a motor fuel in the State of California is, with regard to such gasoline, exempt from the compliance survey provisions contained in § 80.68.

(2) Any refiner, importer, or oxygenate blender of California gasoline is, with regard to such gasoline, exempt from the independent analysis requirements contained in § 80.65(f).

(3) Any refiner, importer, or oxygenate blender of California gasoline that elects to meet any benzene content, oxygen content, or toxics emission reduction standard specified in § 80.41 on average for any averaging period specified in § 80.67 that is in part before March 1, 1996, and in part subsequent to such date, shall, with regard to such gasoline that is produced or imported prior to such date, demonstrate compliance with each of the standards specified in § 80.41 for each of the following averaging periods in lieu of those specified in § 80.67:

(i) January 1 through December 31, 1995; and

(ii) March 1, 1995, through February 29, 1996.

(4) The compliance demonstration required by paragraph (b)(3)(ii) of this section shall be submitted no later than May 31, 1996, along with reports required to be submitted under § 80.75(a)(1).

(c) Any refiner, importer, or oxygenate blender of California gasoline that is manufactured or imported subsequent to March 1, 1996, and that meets the requirements of the California Phase 2 reformulated gasoline regulations, as set forth in Title 13, California Code of Regulations, sections 2260 et seq., is, with regard to such gasoline, exempt from the following requirements (in addition to the requirements specified in paragraph (b) of this section):

(1) The parameter value reconciliation requirements contained in § 80.65(e)(2);

(2) The designation of gasoline requirements contained in § 80.65(d);

(3) The reformulated gasoline and RBOB compliance requirements contained in § 80.65(c);

(4) The marking of conventional gasoline requirements contained in §§ 80.65(g) and 80.82;

(5) The annual compliance audit requirements contained in § 80.65(h);

(6) The downstream oxygenate blending requirements contained in § 80.69;

(7) The record keeping requirements contained in §§ 80.74 and 80.104, except that records required to be maintained under Title 13, California Code of Regulations, section 2270, shall be maintained for a period of five years from the date of creation and shall be delivered to the Administrator or to the Administrator's authorized representative upon request;

(8) The reporting requirements contained in §§ 80.75 and 80.105;

(9) The product transfer documentation requirements contained in § 80.77; and

(10) The compliance attest engagement requirements contained in subpart F of this part.

(d) Any refiner, importer, or oxygenate blender that produces or imports gasoline that is sold, intended for sale, or made available for sale as a motor vehicle fuel in the State of California subsequent to March 1, 1996, shall demonstrate compliance with the standards specified in §§ 80.41 and 80.90 by excluding the volume and properties of such gasoline from all conventional gasoline and reformulated gasoline that it produces or imports that is not sold, intended for sale, or made available for sale as a motor vehicle fuel in the State of California subsequent to such date. The exemption provided in this section does not exempt any refiner or importer from demonstrating compliance with such standards for all gasoline that it produces or imports.

(e)(1) The exemption provisions contained in paragraphs (b)(2), (b)(3), and (c) of this section shall not apply under the circumstances set forth in paragraphs (e)(2) and (e)(3) of this section.

(2)(i) Such exemption provisions shall not apply to any refiner, importer, or oxygenate blender of California gasoline if any gasoline formulation that it produces or imports is certified under Title 13, California Code of Regulations, section 2265 or section 2266, unless such refiner, importer, or oxygenate blender within 30 days of the issuance of such certification:

(A) Notifies the Administrator of such certification;

(B) Submits to the Administrator copies of the applicable certification order issued by the State of California and of the application for certification submitted by the regulated party to the State of California; and

(C) Submits to the Administrator a written demonstration that the certified gasoline formulation meets each of the complex model per-gallon standards specified in § 80.41(c).

(ii) If the Administrator determines that the written demonstration submitted under paragraph (e)(2)(i)(C) of this section does not demonstrate that the certified gasoline formulation meets each of the complex model per-gallon standards specified in § 80.41(c), the Administrator shall provide notice to the party (by first class mail) of such determination and of the date on which the exemption provisions specified in paragraph (e)(1) of this section shall no longer be applicable, which date shall be no earlier than 90 days after the date of the Administrator's notification.

(3)(i) Such exemption provisions shall not apply to any refiner, importer, or oxygenate blender of California gasoline who has been assessed a civil, criminal or administrative penalty for a violation of subpart D, E or F of this part or for a violation of the California Phase 2 reformulated gasoline regulations set forth in Title 13, California Code of Regulations, sections 2260 et seq., effective 90 days after the date of final agency or district court adjudication of such penalty assessment.

(ii) Any refiner, importer, or oxygenate blender subject to the provisions of paragraph (e)(3)(i) of this section may submit a petition to the Administrator for relief, in whole or in part, from the applicability of such provisions, for good cause. Good cause may include a showing that the violation for which a penalty was assessed was not a substantial violation of the federal or California reformulated gasoline regulations.

(f) In the case of any gasoline that is sold, intended for sale, or made available for sale as a motor vehicle fuel in the State of California subsequent to March 1, 1996, any person that manufactures, sells, offers for sale, dispenses, supplies, offers for supply, stores, transports, or causes the transportation of such gasoline is, with regard to such gasoline, exempt from the following prohibited activities provisions:

(1) The oxygenated fuels provisions contained in § 80.78(a)(1)(iii);

(2) The product transfer provisions contained in § 80.78(a)(1)(iv);

(3) The oxygenate blending provisions contained in § 80.78(a)(7); and

(4) The segregation of simple and complex model certified gasoline provision contained in § 80.78(a)(9).

(g)(1) Any refiner that operates a refinery located outside the State of California at which California gasoline (as defined in paragraph (a)(2)(iii) of this section) is produced shall, with regard to such gasoline, provide to any person to whom custody or title of such gasoline is transferred, and each transferee shall provide to any subsequent transferee, documents which include the following information:

(i) The name and address of the transferor;

(ii) The name and address of the transferee;

(iii) The volume of gasoline which is being transferred;

(iv) The location of the gasoline at the time of the transfer;

(v) The date and time of the transfer;

(vi) The identification of the gasoline as California gasoline; and

(vii) In the case of transferrors and transferrees who are refiners, importers or oxygenate blenders, the EPA-assigned registration number of such persons.

(2) Each refiner and transferee of such gasoline shall maintain copies of the product transfer documents required to be provided by paragraph (g)(1) of this section for a period of five years from the date of creation and shall deliver such documents to the Administrator or to the Administrator's authorized representative upon request.

(h) For purposes of the batch sampling and analysis requirements contained in § 80.65(e)(1), any refiner, importer or oxygenate blender of California gasoline may use a sampling and/or analysis methodology prescribed in Title 13, California Code of Regulations, sections 2260 et seq., in lieu of any applicable methodology specified in § 80.66.

(i) The exemption provisions contained in this section shall not be applicable after December 31, 1999.

§ 80.82 Conventional gasoline marker [Reserved]

§§ 80.83–80.89 [Reserved]

Subpart E—Anti-Dumping

§ 80.90 Conventional gasoline baseline emissions determination.

(a) *Annual average baseline values.* For any facility of a refiner or importer of conventional gasoline, the annual average baseline values of the facility's exhaust benzene emissions, exhaust toxics emissions, NO_x emissions, sulfur, olefins and T90 shall be determined using the following equation:

$$BASELINE = \frac{SUMRBASE \times SUMRVOL + WNTRBASE \times WNTRVOL}{SUMRVOL + WNTRVOL}$$

where

BASELINE=annual average baseline value of the facility,

SUMRBASE=summer baseline value of the facility,

SUMRVOL=summer baseline gasoline volume of the facility, per § 80.91,

WNTRBASE=winter baseline value of the facility,

WNTRVOL=winter baseline gasoline volume of the facility, per § 80.91.

(b) *Baseline exhaust benzene emissions—simple model.* (1) Simple model exhaust benzene emissions of conventional gasoline shall be determined using the following equation:

$$EXHBEN = (1.884 + 0.949 \times BX + 0.113 \times (AR - BZ))$$

where

EXHBEN=exhaust benzene emissions,

BZ=fuel benzene value in terms of volume percent (per § 80.91), and

AR=fuel aromatics value in terms of volume percent (per § 80.91).

(2) The simple model annual average baseline exhaust benzene emissions for any facility of a refiner or importer of conventional gasoline shall be determined as follows:

(i) The simple model baseline exhaust benzene emissions shall be determined separately for summer and winter using the facility's oxygenated individual baseline fuel parameter values for summer and winter (per § 80.91), respectively, in the equation specified in paragraph (b)(1) of this section.

(ii) The simple model annual average baseline exhaust benzene emissions of the facility shall be determined using the emissions values determined in paragraph (b)(2)(i) of this section in the equation specified in paragraph (a) of this section.

(c) *Baseline exhaust benzene emissions—complex model.* The complex model annual average baseline exhaust benzene emissions for any facility of a refiner or importer of conventional gasoline shall be determined as follows:

(1) The summer and winter complex model baseline exhaust benzene emissions shall be determined separately using the facility's oxygenated individual baseline fuel parameter values for summer and winter (per § 80.91), respectively, in the appropriate complex model for exhaust benzene emissions described in § 80.45.

(2) The complex model annual average baseline exhaust benzene emissions of the facility shall be determined using the emissions values determined in paragraph (c)(1) of this section in the equation specified in paragraph (a) of this section.

(d) *Baseline exhaust toxics emissions.* The annual average baseline exhaust toxics emissions for any facility of a refiner or importer of conventional gasoline shall be determined as follows:

(1) The summer and winter baseline exhaust emissions of benzene, formaldehyde, acetaldehyde, 1,3-butadiene, and polycyclic organic matter shall be determined using the oxygenated individual baseline fuel parameter values for summer and winter (per § 80.91), respectively, in the appropriate complex model for each exhaust toxic (per § 80.45).

(2) The summer and winter baseline total exhaust toxics emissions shall be determined separately by summing the summer and winter baseline exhaust emissions of each toxic (per paragraph (d)(1) of this section), respectively.

(3) The annual average baseline exhaust toxics emissions of the facility shall be determined using the emissions values determined in paragraph (d)(2) of this section in the equation specified in paragraph (a) of this section.

(e) *Baseline NO_x emissions.* The annual average baseline NO_x emissions for any facility of a refiner or importer of conventional gasoline shall be determined as follows:

(1) The summer and winter baseline NO_x emissions shall be determined using the baseline individual baseline fuel parameter values for summer and winter (per § 80.91), respectively, in the appropriate complex model for NO_x (per § 80.45).

(2) The annual average baseline NO_x emissions of the facility shall be determined using the emissions values determined in paragraph (e)(2) of this section in the equation specified in paragraph (a) of this section.

(3) The requirements specified in paragraphs (e) (1) and (2) of this section shall be determined separately using the oxygenated and nonoxygenated individual baseline fuel parameters, per § 80.91.

(f) *Applicability of Phase I and Phase II models.* The requirements of paragraphs (d) and (e) of this section shall be determined separately for the applicable Phase I and Phase II complex models specified in § 80.45.

(g) *Calculation accuracy.* Emissions values calculated per the requirements of this section shall be determined to four (4) significant figures. Sulfur, olefin and T90 values calculated per the requirements of this section shall be determined to the same number of decimal places as the corresponding value listed in § 80.91(c)(5).

§ 80.91 Individual baseline determination.

(a) *Baseline definition.* (1) The "baseline" or "individual baseline" of a

refinery, refiner or importer, as applicable, shall consist of:

(i) An estimate of the quality, composition and volume of its 1990 gasoline, or allowable substitute, based on the requirements specified in §§ 80.91 through 80.93; and

(ii) Its baseline emissions values calculated per paragraph (f) of this section; and

(iii) Its 1990–1993 blendstock-to-gasoline ratios calculated per § 80.102.

(2)(i) The quality and composition of the 1990 gasoline of a refinery, refiner or importer, as applicable, shall be the set of values of the following fuel parameters: benzene content; aromatic content; olefin content; sulfur content; distillation temperature at 50 and 90 percent by volume evaporated; percent evaporated at 200 °F and 300 °F; oxygen content; RVP.

(ii) A refiner, per paragraph (b)(3)(i) of this section, shall also determine the API gravity of its 1990 gasoline.

(3) The methodology outlined in this section shall be followed in determining a baseline value for each fuel parameter listed in paragraph (a)(2) of this section.

(b) *Requirements for refiners, blenders and importers*—(1) *Requirements for producers of gasoline and gasoline blendstocks.* (i) A refinery engaged in the production of gasoline blendstocks from crude oil and/or crude oil derivatives, and the subsequent mixing of those blendstocks to form gasoline, shall have its baseline fuel parameter values determined from Method 1, 2 and/or 3-type data as described in paragraph (c) of this section, provided the refinery was in operation for at least 6 months in 1990.

(ii) A refinery which was in operation for at least 6 months in 1990, was shut down after 1990, and which restarts after June 15, 1994, and for which insufficient 1990 and post-1990 data was collected prior to January 1, 1995 from which to determine an individual baseline, shall have the values listed in paragraph (c)(5) of this section as its individual baseline parameters.

(iii) A refinery which was in operation for less than 6 months in 1990 shall have the values listed in paragraph (c)(5) of this section as its individual baseline parameters.

(2) *Requirements for producers or importers of gasoline blendstocks only.* A refiner or importer of gasoline blendstocks which did not produce or import gasoline in 1990 and which produces or imports post-1994 gasoline shall have the values listed in paragraph (c)(5) of this section as its individual baseline parameters.

(3) *Requirements for purchasers of gasoline and/or gasoline blendstocks.* (i) A refiner or refinery, as applicable, solely engaged in the production of gasoline from gasoline blendstocks and/or gasoline which are simply purchased and blended to form gasoline shall have its individual baseline determined using Method 1-type data (per paragraph (c) of this section) from every batch of 1990 gasoline.

(ii) If Method 1-type data on every batch of the refiner's or refinery's 1990 gasoline does not exist, that refiner or refinery shall have the values listed in paragraph (c)(5) of this section as its individual baseline parameters.

(4) *Requirements for importers of gasoline and/or gasoline blendstocks.* (i) An importer of gasoline shall determine an individual baseline value for each fuel parameter listed in paragraph (a)(2) of this section using Method 1-type data on every batch of gasoline imported by that importer into the United States in 1990.

(ii) An importer which is also a foreign refiner must determine its individual baseline using Method 1, 2 and/or 3-type data (per paragraph (c) of this section) if it imported at least 75 percent, by volume, of the gasoline produced at its foreign refinery in 1990 into the United States in 1990.

(iii) An importer which cannot meet the criteria of paragraphs (b)(4)(i) or (ii) of this section for baseline determination shall have the parameter values listed in paragraph (c)(5) of this section as its individual baseline parameter values.

(5) *Requirements for exporters of gasoline and/or gasoline blendstocks.* A refiner shall not include quality or volume data on its 1990 exports of gasoline blendstocks or gasoline in its baseline determination.

(c) *Data types*—(1) *Method 1-type data.*

(i) Method 1-type data shall consist of quality (composition and property data) and volume records of gasoline produced in or shipped from the refinery in 1990, excluding exported gasoline. The measured fuel parameter values and volumes of batches, or shipments if not batch blended, shall be used except that data on produced gasoline which was also shipped shall be included only once.

(ii) Gasoline blendstock which left a facility in 1990 and which could become gasoline solely upon the addition of oxygenate shall be included in the baseline determination.

(A) Fuel parameter values of such blendstock shall be accounted for as if the gasoline blendstock were blended with ten (10.0) volume percent ethanol.

(B) If the refiner or importer can provide evidence that such gasoline blendstock was not blended per paragraph (c)(1)(ii)(A) of this section, and that such gasoline blendstock was blended with another oxygenate or a different volume of ethanol, the fuel parameter values of the final gasoline (including oxygenate) shall be included in the baseline determination.

(C) If the refiner or importer can provide evidence that such gasoline blendstock was not blended per paragraph (c)(1)(ii)(A) or (B) of this section, and that such gasoline blendstock was sold with out further changes downstream, the fuel parameter values of the original product shall be included in the baseline determination.

(iii) Data on 1990 gasoline purchased or otherwise received, including intracompany transfers, shall not be included in the baseline determination of a refiner's or importer's facility if the gasoline exited the receiving refinery unchanged from its arrival state.

(2) *Method 2-type data.* Method 2-type data shall consist of 1990 gasoline blendstock quality data and 1990 blendstock production records, specifically the measured fuel parameter values and volumes of blendstock used in the production of gasoline within the refinery. Blendstock data shall include volumes purchased or otherwise received, including intracompany transfers, if the volumes were blended as part of the refiner's or importer's 1990 gasoline. Henceforth in §§ 80.91 through 80.93, "blendstock(s)" or "gasoline blendstock(s)" shall include those products or streams commercially blended to form gasoline.

(3) *Method 3-type data.* (i) Method 3-type data shall consist of post-1990 gasoline blendstock and/or gasoline quality data and 1990 blendstock and gasoline production records, specifically the measured fuel parameter values and volumes of blendstock used in the production of gasoline within the refinery. Blendstock data shall include volumes purchased or otherwise received, including intracompany transfers, if the volumes were blended as part of the refiner's or importer's 1990 gasoline.

(ii) In order to use Method 3-type data, the refiner or importer must do all of the following:

(A) Include a detailed discussion comparing its 1990 and post-1990 refinery operations and all other differences which would cause the 1990 and post-1990 fuel parameter values to differ; and

(B) Perform the appropriate calculations so as to adjust for the differences determined in paragraph (c)(3)(ii)(A) of this section; and

(C) Include a narrative, discussing the methodology and reasoning for the adjustments made per paragraph (c)(3)(ii)(B) of this section.

(iii) In order to use post-1990 gasoline data, either of the following must be shown for each blendstock-type included in 1990 gasoline, excluding butane:

(A) The post-1990 volumetric fraction of a blendstock is within (+/−)10.0 percent of the volumetric fraction of that blendstock in 1990 gasoline. For example, if a 1990 blendstock constituted 30 volume percent of 1990 gasoline, this criterion would be met if the post-1990 volumetric fraction of the blendstock in post-1990 gasoline was 27.0–33.0 volume percent.

(B) The post-1990 volumetric fraction of a blendstock is within (+/−)2.0 volume percent of the absolute value of the 1990 volumetric fraction. For example, if a 1990 blendstock constituted 5 volume percent of 1990 gasoline, this criterion would be met if the post-1990 volumetric fraction of the blendstock in post-1990 gasoline was 3–7 volume percent.

(iv) If using post-1990 gasoline data, post-1990 gasoline blendstock which left a facility and which could become gasoline solely upon the addition of oxygenate shall be included in the baseline determination, per the requirements specified in paragraph (c)(1)(ii) of this section.

(4) *Hierarchy of data use.* (i) A refiner or importer must determine a baseline fuel parameter value using only Method 1-type data if sufficient Method 1-type data is available, per paragraph (d)(1)(ii) of this section.

(ii) If a refiner has insufficient Method 1-type data for a baseline parameter value determination, it must supplement that data with all available Method 2-type data, until it has sufficient data, per paragraph (d)(1)(iii) of this section.

(iii) If a refiner has insufficient Method 1- and Method 2-type data for a baseline parameter value determination, it must supplement that data with all available Method 3-type data, until it has sufficient data, per paragraph (d)(1)(iii) of this section.

(iv) The protocol for the determination of baseline fuel parameter values in paragraphs (c)(4)(i) through (iii) of this section shall be applied to each fuel parameter one at a time.

(5) *Anti-dumping statutory baseline.* (i) The summer anti-dumping statutory baseline shall have the set of fuel parameter values identified as "summer" in § 80.45(b)(2). The anti-dumping summer API gravity shall be 57.4 °API.

(ii) The winter anti-dumping statutory baseline shall have the set of fuel parameter values identified as "winter" in § 80.45(b)(2), except that winter RVP shall be 8.7 psi. The anti-dumping winter API gravity shall be 60.2 API.

(iii) The annual average anti-dumping statutory baseline shall have the following set of fuel parameter values:

Benzene, volume percent—1.60
Aromatics, volume percent—28.6
Olefins, volume percent—10.8
RVP, psi—8.7
T50, degrees F—207
T90, degrees F—332
E200, percent—46
E300, percent—83
Sulfur, ppm—338
API Gravity, °API—59.1

(d) *Data collection and testing requirements*—(1) *Minimum sampling requirements.*—(i) *General requirements.* (A) Data shall have been obtained for at least three months of the refiner's or importer's production of summer gasoline and at least three months of its production of winter gasoline.

(1) A summer month shall be any month during which the refiner produced any gasoline which met the federal summer gasoline volatility requirements. Winter shall be any month which could not be considered a summer month.

(2) The three months which compose the summer and the winter data do not have to be consecutive nor within the same year.

(3) If, in 1990, a refiner marketed all of its gasoline only in an area or areas which experience no seasonal changes relative to gasoline requirements, e.g., Hawaii, only 3 months of data are required.

(B) Once the minimum sampling requirements have been met, data collection may cease. Additional data may only be included for the remainder of the calendar year in which the minimum sampling requirements were met. In any case, all available data collected up until the time data collection ceases must be utilized in the baseline determination.

(C) Less than the minimum requirements specified in paragraph (d)(1) of this section may be allowed, upon petition and approval (per § 80.93), if it can be shown that the available data is sufficient in quality and quantity to use in the baseline determination.

(ii) *Method 1 sampling requirements.* At least half of the batches, or shipments if not batch blended, in a calendar month shall have been sampled over a minimum of six months in 1990.

(iii) *Method 2 sampling requirements.* (A) Continuous blendstock streams shall have been sampled at least weekly over a minimum of six months in 1990.

(B) For blendstocks produced on a batch basis, at least half of all batches of a single blendstock type produced in a calendar month shall have been sampled over a minimum of six months in 1990.

(iv) *Method 3 sampling requirements*—(A) *Blendstock data. (1)* Post-1990 continuous blendstock streams shall have been sampled at least weekly over a minimum of six months.

(2) For post-1990 blendstocks produced on a batch basis, at least half of all batches of a single blendstock type produced in a calendar month shall have been sampled over a minimum of six months.

(B) *Gasoline data.* At least half of the post-1990 batches, or shipments if not batch blended, in a calendar month shall have been sampled over a minimum of six months in order to use post-1990 gasoline data.

(2) *Sampling beyond today's date.* The necessity and actual occurrence of data collection after today's date must be shown.

(3) *Negligible quantity sampling.* Testing of a blendstock stream for a fuel parameter listed in this paragraph (d)(3) is not required if the refiner can show that the fuel parameter exists in the stream at less than or equal to the amount, on average, shown in this paragraph (d)(3) for that fuel parameter. Any fuel parameter shown to exist in a refinery stream in negligible amounts shall be assigned a value of 0.0:

Aromatics, volume percent—1.0
Benzene, volume percent—0.15
Olefins, volume percent—1.0
Oxygen, weight percent—0.2
Sulfur, ppm—30.0

(4) *Sample compositing.* (i) Samples of gasoline or blendstock which have been retained, but not analyzed, may be mixed prior to analysis and analyzed, as described in paragraphs (d)(4)(iii) (A) through (H) of this section, for the required fuel parameters. Samples must be from the same season and year and must be of a single grade or of a single type of batch-produced blendstock.

(ii) Blendstock samples of a single blendstock type obtained from continuous processes over a calendar month may be mixed together in equal volumes to form one blendstock sample and the sample subsequently analyzed for the required fuel parameters.

(iii)(A) Samples shall have been collected and stored per the method normally employed at the refinery in order to prevent change in product

composition with regard to baseline properties and to minimize loss of volatile fractions of the sample.

(B) Properties of the retained samples shall be adjusted for loss of butane by comparing the RVP measured right after blending with the RVP determined at the time that the supplemental properties are measured.

(C) The volume of each batch or shipment sampled shall have been noted and the sum of the volumes calculated to the nearest hundred (100) barrels.

(D) For each batch or shipment sampled, the ratio of its volume to the total volume determined in paragraph (d)(4)(iii)(C) of this section shall be determined to three (3) decimal places. This shall be the volumetric fraction of the shipment in the mixture.

(E) The total minimum volume required to perform duplicate analyses to obtain values of all of the required fuel parameters shall be determined.

(F) The volumetric fraction determined in paragraph (d)(4)(iii)(D) of this section for each batch or shipment shall be multiplied by the value determined in paragraph (d)(4)(iii)(E) of this section.

(G) The resulting value determined in paragraph (d)(4)(iii)(F) of this section for each batch or shipment shall be the volume of each batch or shipment's sample to be added to the mixture. This volume shall be determined to the nearest milliliter.

(H) The appropriate volumes of each shipment's sample shall be thoroughly mixed and the solution analyzed per the methods normally employed at the refinery.

(5) *Test methods.* (i) If the test methods used to obtain fuel parameter values of gasoline and gasoline blendstocks differ or are otherwise not equivalent in precision or accuracy to the corresponding test method specified in § 80.46, results obtained under those procedures will only be acceptable, upon petition and approval (per § 80.93), if the procedures are or were industry-accepted procedures for measuring the properties of gasoline and gasoline blendstocks at the time the measurement was made.

(ii) Oxygen content may have been determined analytically or from oxygenate blending records.

(A) The fuel parameter values, other than oxygen content, specified in paragraph (a) of this section, must be established as for any blendstock, per the requirements of this paragraph (d).

(B) All oxygen associated with allowable gasoline oxygenates per § 80.2(jj) shall be included in the determination of the baseline oxygen content, if oxygen content was determined analytically.

(C) Oxygen content shall be assumed to be contributed solely by the oxygenate which is indicated on the blending records, if oxygen content was determined from blending records.

(6) *Data quality.* Data may be excluded from the baseline determination if it is shown to the satisfaction of the Director of the Office of Mobile Sources, or designee, that it is not within the normal range of values expected for the gasoline or blendstock sample, considering unit configuration, operating conditions, etc.; due to:

(i) Improper labeling; or

(ii) Improper testing; or

(iii) Other reasons as verified by the auditor specified in § 80.92.

(e) *Baseline fuel parameter determination*—(1) *Closely integrated gasoline producing facilities.* Each refinery or blending facility must determine a set of baseline fuel parameter values per this paragraph (e). A single set of baseline fuel parameters may be determined, upon petition and approval, for two or more facilities under either of the following circumstances:

(i) Two or more refineries or sets of gasoline blendstock-producing units of a refiner engaged in the production of gasoline per paragraph (b)(1) of this section which are geographically proximate to each other, yet not within a single refinery gate, and whose 1990 operations were significantly interconnected.

(ii) A gasoline blending facility operating per paragraph (b)(3) of this section received at least 75 percent of its 1990 blendstock volume from a single refinery, or from one or more refineries which are part of an aggregate baseline per § 80.101(h). The blending facility and associated refinery(ies) must be owned by the same refiner.

(2) *Equations*—(i) *Parameter determinations.* Average baseline fuel parameters shall be determined separately for summer and winter using summer and winter data (per paragraph (d)(1)(i)(A) of this section), respectively, in the applicable equation listed in paragraphs (e)(2) (ii) through (iv) of this section, except that average baseline winter RVP shall be 8.7 psi.

(ii) *Product included in parameter determinations.* In each of the equations listed in paragraphs (e)(2) (ii) through (iv) of this section, the following shall apply:

(A) All gasoline produced to meet EPA's 1990 summertime volatility requirements shall be considered summer gasoline. All other gasoline shall be considered winter gasoline.

(B) *(1)* Baseline total annual 1990 gasoline volume shall be the larger of the total volume of gasoline produced in or shipped from the refinery in 1990.

(2) Baseline summer gasoline volume shall be the total volume of low volatility gasoline which met EPA's 1990 summertime volatility requirements. Baseline summer gasoline volume shall be determined on the same basis (produced or shipped) as baseline total annual gasoline volume.

(3) Baseline winter gasoline volume shall be the baseline total annual gasoline volume minus the baseline summer gasoline volume.

(C) Fuel parameter values shall be determined in the same units and at least to the same number of decimal places as the corresponding fuel parameter listed in paragraph (c)(5) of this section.

(D) Volumes shall be reported to the nearest barrel or to the degree at which historical records were kept.

(iii) *Method 1.* Summer and winter Method 1-type data, per paragraph (c)(1) of this section, shall be evaluated separately according to the following equation:

$$X_{bs} = \sum_{g=1}^{p_s} \left(\frac{T_{gs}}{n_s} \times \frac{\sum_{i=1}^{n_{gs}} \left(X_{gis} \times V_{gis} \times SG_{gis} \right)}{\sum_{i=1}^{n_{gs}} \left(V_{gis} \times SG_{gis} \right)} \right)$$

where:

X_{bs}=summer or winter baseline value of fuel parameter X for the refinery

s=season, summer or winter, per paragraph (d)(1)(i)(A)(*1*) of this section

g=separate grade of season s gasoline produced by the refinery in 1990

p_s=total number of different grades of season s gasoline produced by the refinery in 1990

T_{gs}=total volume of season s grade g gasoline produced in 1990

N_s=total volume of season s gasoline produced by the refinery in 1990

i=separate batch or shipment of season s 1990 gasoline sampled

n_{gs}=total number of season s samples of grade g gasoline

X_{gis}=parameter value of grade g gasoline sample i in season s

V_{gis}=volume of season s grade g gasoline sample i

SG_{gis}=specific gravity of season s grade g gasoline sample i (used only for fuel parameters measured on a weight basis)

(iv) *Method 2.* Summer and winter Method 2-type data, per paragraph (c)(2) of this section, shall be evaluated separately according to the following equation:

$$X_{bs} = \sum_{j=1}^{m_s}\left(\frac{T_{js}}{n_s}\times\left(\frac{\sum_{i=1}^{N_{js}} X_{ijs}}{n_{js}} + \frac{\sum_{i=1}^{p_j}\left(X_{ijs}\times V_{ijs}\times SG_{ijs}\right)}{\sum_{i=1}^{p_j}\left(V_{ijs}\times SG_{ijs}\right)}\right)\right)$$

where

X_{bs}=Summer or winter baseline value of fuel parameter X for the refinery

s=season, summer or winter, per paragraph (d)(1)(i)(A)(*1*) of this section

j=type of blendstock (e.g., reformate, isomerate, alkylate, etc.)

m_s=total types of blendstocks in season s 1990 gasoline

T_{js}=total 1990 volume of blendstock j produced in the refinery and used in the refinery's season s gasoline

N_s=total volume of season s gasoline produced in the refinery in 1990

i=sample of blendstock j

n_{js}=number of samples of season s blendstock j from continuous process streams

X_{ijs}=parameter value of sample i of season s blendstock j

p_{js}=number of samples of season s batch-produced blendstock j

V_{ijs}=volume of batch of sample i of season s blendstock j

SG_{ijs}=specific gravity of sample i of season s blendstock j (used only for fuel parameters measured on a weight basis)

(v) *Method 3.* (A) Post-1990 Blendstock. Summer and winter Method 3-type data, per paragraph (c)(3) of this section, shall be evaluated separately according to the following equation:

$$X_{bs} = \sum_{j=1}^{m_s}\left(\frac{T_{js}}{N_s}\times\left(\frac{\sum_{i=1}^{n_{js}} X_{ijs}}{n_{js}} + \frac{\sum_{i=1}^{p_{js}}\left(X_{ijs}\times V_{ijs}\times SG_{ijs}\right)}{\sum_{i=1}^{p_{js}}\left(V_{ijs}\times SG_{ijs}\right)}\right)\right)$$

where

X_{bs}=Summer or winter baseline value of fuel parameter X for the refinery

s=season, summer or winter, per paragraph (d)(1)(i)(A)(*1*) of this section

j=type of blendstock (e.g., reformate, isomerate, alkylate, etc.)

m_s=total types of blendstocks in season s 1990 gasoline

T_{js}=total 1990 volume of blendstock j produced in the refinery and used in the refinery's season s gasoline

N_s=total volume of season s gasoline produced in the refinery in 1990

i=sample of post-1990 season s blendstock j

n_{js}=number of samples of post-1990 season s blendstock j from continuous process streams

X_{ijs}=parameter value of sample i of post-1990 season s blendstock j

p_{js}=number of samples of post-1990 season s batch-produced blendstock j

V_{ijs}=volume of post-1990 batch of sample i of season s blendstock j

SG_{ijs}=specific gravity of sample i of season s blendstock j (used only for fuel parameters measured on a weight basis)

(B) Post-1990 gasoline. Summer and winter Method 3-type gasoline data, per paragraph (c)(3) of this section, shall be evaluated separately according to the following equation:

$$X_{bs} = \sum_{g=1}^{p_s}\left(\frac{T_{gs}}{N_s}\times\frac{\sum_{i=1}^{n_{gs}}\left(X_{gis}\times V_{gis}\times SG_{gis}\right)}{\sum_{i=1}^{n_{gs}}\left(V_{gis}\times SG_{gis}\right)}\right)$$

where:
X_{bs}=Summer or winter baseline value of fuel parameter X for the refinery
s=season, summer or winter, per paragraph (d)(1)(i)(A)(*1*) of this section
g=separate grade of season s gasoline produced by the refinery in 1990
p_s=total number of different grades of season s gasoline produced by the refinery in 1990
T_{gs}=total volume of season s grade g gasoline produced in 1990
N_s=total volume of season s gasoline produced by the refinery in 1990
i=separate batch or shipment of post-1990 season s gasoline sampled
n_{gs}=total number of samples of post-1990 season s grade g gasoline
X_{gis}=parameter value of post-1990 grade g season s gasoline sample i
V_{gis}=volume of post-1990 season s grade g gasoline sample i
SG_{gis}=specific gravity of post-1990 season s grade g gasoline sample i (used only for fuel parameters measured on a weight basis)

(3) *Percent evaporated determination.* (i) Baseline E200 and E300 values shall be determined directly from actual measurement data.

(ii) If the data per paragraph (e)(3)(i) of this section are unavailable, upon petition and approval, baseline E200 and E300 values shall be determined from the following equations using the baseline T50 and T90 values, if the baseline T50 and T90 values are otherwise acceptable:

E200=147.91−(0.49×T50)

E300=155.47−(0.22×T90)

(4) *Oxygen in the baseline.* Baseline fuel parameter values shall be determined on both an oxygenated and non-oxygenated basis.

(i) If baseline values are determined first on an oxygenated basis, per paragraph (e) of this section, the calculations in paragraphs (e)(4)(i) (A) through (C) of this section shall be performed to determine the value of each baseline parameter on a non-oxygenated basis.

(A) Benzene, aromatic, olefin and sulfur content shall be determined on a non-oxygenated basis according to the following equation:

$$UV = \frac{AV}{(100 - OV)}$$

where
UV=non-oxygenated parameter value
AV=oxygenated parameter value
OV=1990 oxygenate volume as a percent of total production

(B) Reid vapor pressure (RVP) shall be determined on a non-oxygenated basis according to the following equation:

$$UR = \frac{BR - \sum_{i=1}^{n}(OV_i \times OR_i)}{\left(100 - \sum_{i=1}^{n}(OV_i)\right)}$$

where
UR=non-oxygenated RVP (baseline value)
BR=oxygenated RVP
i=type of oxygenate used in 1990
n=total number of different types of oxygenates used in 1990
OV_i=1990 volume, as a percent of total production, of oxygenate i
OR_i=blending RVP of oxygenate i

(C) Test data and engineering judgement shall be used to estimate T90, T50, E300 and E200 baseline values on a non-oxygenated basis. Allowances shall be made for physical dilution and distillation effects only, and not for refinery operational changes, e.g., decreased reformer severity required due to the octane value of oxygenate which would reduce aromatics.

(ii) If baseline values are determined first on a non-oxygenated basis, the calculations in paragraphs (e)(4)(ii) (A) through (C) of this section shall be performed to determine the value of each baseline parameter on an oxygenated basis.

(A) Benzene, aromatic, olefin and sulfur content shall be determined on an oxygenated basis according to the following equation:

$$AV = UV \times (100 - OV)$$

where
AV=oxygenated parameter value
UV=no-oxygenated parameter value
OV=1990 oxygenate volume as a percent of total production

(B) Reid vapor pressure (RVP) shall be determined on an oxygenated basis according to the following equation:

$$BR = UR \times \left(100 - \sum_{i=1}^{n}(OV_i)\right) + \sum_{i=1}^{n}(OV_i \times OR_i)$$

where
BR=oxygenated RVP
UR=non-oxygenated RVP
i=type of oxygenate
n=total number of different types of oxygenates
OV_i=1990 volume, as a percent of total production, of oxygenate i
OR_i=blending RVP of oxygenate i

(C) Test data and engineering judgement shall be used to estimate T90, T50, E300 and E200 baseline values on an oxygenated basis. Allowances shall be made for physical dilution and distillation effects only, and not for refinery operational changes, e.g., decreased reformer severity required due to the octane value of oxygenate which would reduce aromatics.

(5) *Work-in-progress.* A refiner may, upon petition and approval (per § 80.93), be allowed to account for work-in-progress at one or more of its refineries in 1990 in the determination of that refinery's baseline fuel parameters using Method 1, 2 or 3-type data if it meets the requirements specified in this paragraph (e)(5).

(i) Work-in-progress shall include:

(A) Refinery modification projects involving gasoline blendstock or distillate producing units which were under construction in 1990; or

(B) Refinery modification projects involving gasoline blendstock or distillate producing units which were contracted for prior to or in 1990 such that the refiner was committed to purchasing materials and constructing the project.

(ii) The modifications discussed in paragraph (e)(5)(i) of this section must have been initiated with intent of complying with a legislative or regulatory environmental requirement enacted or promulgated prior to January 1, 1991.

(iii) When comparing emissions or parameter values determined with and without the anticipated work-in-progress adjustment, at least one of the following situations results when comparing annual average baseline values per § 80.90:

(A) A 2.5 percent or greater difference in exhaust benzene emissions (per § 80.90); or

(B) A 2.5 percent or greater difference in total exhaust toxics emissions (per § 80.90(d)); or

(C) A 2.5 percent or greater difference in NO_X emissions (per § 80.90(e)); or

(D) A 10.0 percent or greater difference in sulfur values; or

(E) A 10.0 percent or greater difference in olefin values; or

(F) A 10.0 percent or greater difference in T90 values.

(iv) The requirements of paragraph (e)(5)(iii) of this section shall be determined according to the following equation:

$$\text{Percent Difference} = \frac{|\text{Unadjusted Value} - \text{Adjusted Value}|}{\text{Unadjusted Value}} \times 100$$

(v) The capital involved in the work-in-progress is at least:

(A) 10.0 percent of the refinery's depreciated book value as of the work-in-progress start-up date; or

(B) $10 million.

(vi) Sufficient data shall have been obtained since reliable operation of the work-in-progress was achieved. Such data shall be used in the determination of the adjusted baseline fuel parameter and as verification of the effect of the work-in-progress.

(vii) Increases in each of the annual average baseline values (per § 80.90) of exhaust benzene emissions, exhaust toxics emissions and NO_X emissions due to work-in-progress adjustments are limited to the larger of:

(A) The unadjusted annual average baseline value of each emission specified in this paragraph (e)(5)(vii); or

(B) The following values:

(1) Exhaust benzene emissions, simple model, 6.77;

(2) Exhaust benzene emissions, complex model, 34.68 mg/mile;

(3) Exhaust toxics emissions, 53.20 mg/mile in Phase I, 109.7 mg/mile in Phase II;

(4) NO_X emissions, 750.1 mg/mile in Phase I, 1534. mg/mile in Phase II.

(viii) When compliance is achieved using the simple model (per § 80.101), increases in each of the annual average baseline values (per § 80.90) of sulfur, olefins and T90 due to work-in-progress adjustments are limited to the larger of:

(A) The unadjusted annual average baseline value of each specified fuel parameter specified in this paragraph (e)(5)(viii); or

(B) The following values:

(1) Sulfur, 355 ppm;

(2) Olefins, 11.3 volume percent;

(3) T90, 349 °F.

(ix) All work-in-progress adjustments must be accompanied by:

(A) Unadjusted and adjusted fuel parameters, emissions, and volumes; and

(B) A description of the current status of the work-in-progress (i.e., the refinery modification project) and the date on which normal operations were achieved; and

(C) A narrative describing the situation, the types of calculations, and the reasoning supporting the types of calculations done to determine the adjusted values.

(6) *Baseline adjustment for extenuating circumstances.* (i) Baseline adjustments may be allowed, upon petition and approval (per § 80.93), if a refinery had downtime of a gasoline blendstock producing unit for 30 days or more in 1990 due to:

(A) Unplanned, unforeseen circumstances; or

(B) Non-annual maintenance (turnaround).

(ii) Fuel parameter and volume adjustments shall be made by assuming that the downtime did not occur in 1990.

(iii) All extenuating circumstance adjustments must be accompanied by:

(A) Unadjusted and adjusted fuel parameters, emissions, and volumes; and

(B) A description of the current status of the extenuating circumstance and the date on which normal operations were achieved; and

(C) A narrative describing the situation, the types of calculations, and the reasoning supporting the types of calculations done to determine the adjusted values.

(7) *Baseline adjustments for 1990 JP–4 production.* (i) Baseline adjustments may be allowed, upon petition and approval (per § 80.93), if a refinery produced JP–4 jet fuel in 1990 and meets all of the following requirements:

(A) The refinery is the only refinery of a refiner such that it cannot form an aggregate baseline with another refinery (per paragraph (f) of this section) or all of the refineries of a refiner produced JP–4 in 1990 and each of the refineries also meets the requirements specified in paragraphs (e)(7)(i) (B) and (C) of this section.

(B) The refinery will not produce reformulated gasoline. If the refinery produces reformulated gasoline at any time in a calendar year, its compliance baseline shall revert to its unadjusted baseline values for that year and all subsequent years.

(C) The ratio of the refinery's 1990 JP–4 production to its 1990 gasoline production equals or exceeds 0.5.

(ii) Fuel parameter and volume adjustments shall be made by assuming that no JP–4 was produced in 1990.

(iii) All adjustments due to 1990 JP–4 production must be accompanied by:

(A) Unadjusted and adjusted fuel parameters, emissions, and volumes; and

(B) A narrative describing the situation, the types of calculations, and the reasoning supporting the types of calculations done to determine the adjusted values.

(f) *Baseline volume and emissions determination*—(1) *Individual baseline volume.* (i) The individual baseline volume of a refinery described in paragraph (b)(1)(i) of this section shall be the larger of the total gasoline volume produced in or shipped from the refinery in 1990, excluding gasoline blendstocks and exported gasoline, and including the oxygenate volume associated with any product meeting the requirements specified in paragraph (c)(1)(ii) of this section.

(ii) Gasoline brought into the refinery in 1990 which exited the refinery, in 1990, unchanged shall not be included in determining the refinery's baseline volume.

(iii) If a refiner is allowed to adjust its baseline per paragraphs (e)(5) through (e)(7) of this section, its individual baseline volume shall be the volume determined after the adjustment.

(iv) The individual baseline volume for facilities deemed closely integrated, per paragraph (e)(1) of this section, shall be the combined 1990 gasoline production of the facilities, so long as mutual volumes are not double-counted, i.e., volumes of blendstock sent from the refinery to the blending facility should not be included in the blending facility's volume.

(v) The baseline volume of a refiner, per paragraph (b)(3) of this section, shall be the larger of the total gasoline volume produced in or shipped from the refinery in 1990, excluding gasoline blendstocks and exported gasoline.

(vi) The baseline volume of an importer, per paragraph (b)(4) of this section, shall be the total gasoline volume imported into the U.S. in 1990.

(2) *Individual baseline emissions.* (i) Individual annual average baseline

emissions (per § 80.90) shall be determined for every refinery, refiner or importer, as applicable.

(ii) For each individual summer or winter baseline fuel parameter value (determined per paragraph (e) of this section) which is outside of the complex model conventional gasoline valid range for that parameter (per § 80.45(f)(1)(ii)), the complex model range is extended only for such fuel parameters, in both baseline and compliance complex model emissions determinations, and only for the applicable summer or winter models.

(iii) Facilities deemed closely integrated, per paragraph (e)(1) of this section, shall have a single set of annual average individual baseline emissions.

(iv) Aggregate baselines (per § 80.101(h)) must have the NO_X emissions of all refineries in the aggregate determined on the same basis, using either oxygenated or non-oxygenated baseline fuel parameters.

(3) *Geographic considerations requiring individual conventional gasoline compliance baselines.* (i) Anyone may petition EPA to establish separate baselines for refineries located in and providing conventional gasoline to an area with a limited gasoline distribution system if it can show that the area is experiencing increased toxics emissions due to an ozone nonattainment area opting into the reformulated gasoline program pursuant to section 211(k)(6) of the Act.

(ii) If EPA agrees with the finding of paragraph (f)(4)(i) of this section, it shall require that the baselines of such refineries be separate from refineries not located in the area.

(iii) If two (2) or more of a refiner's refineries are located in the geographic area of concern, the refiner may aggregate the baseline emissions and sulfur, olefin and T90 values of the refineries or have an individual baseline for one or more of the refineries, per paragraph (f)(3) of this section.

(4) *Baseline recalculations.* Aggregate baseline exhaust emissions (per § 80.90) and baseline sulfur, olefin and T90 values and aggregate baseline volumes shall be recalculated under the following circumstances:

(i) A refinery included in an aggregate baseline is entirely shutdown. If the shutdown refinery was part of an aggregate baseline, the aggregate baseline emissions, aggregate baseline sulfur, olefin and T90 values and aggregate volume shall be recalculated to account for the removal of the shutdown refinery's contributions to the aggregate baseline.

(ii) A refinery exchanges owners.

(A) All aggregate baselines affected by the exchange shall be recalculated to reflect the addition or subtraction of the baseline exhaust emissions, sulfur, olefin and T90 values and volumes of that refinery.

(B) The new owner may elect to establish an individual baseline for the refinery or to include it in an aggregate baseline.

(C) If the refinery was part of an aggregate of three or more refineries, the remaining refineries in the aggregate from which that refinery was removed will have a new aggregate baseline. If the refinery was part of an aggregate of only two refineries, the remaining refinery will have an individual baseline.

(g) *Inability to meet the requirements of this section.* If a refiner or importer is unable to comply with one or more of the requirements specified in paragraphs (a) through (f) of this section, it may, upon petition and approval, accommodate the lack of compliance in a reasonable, logical, technically sound manner, considering the appropriateness of the alternative. A narrative of the situation, as well as any calculations and results determined, must be documented.

§ 80.92 Baseline auditor requirements.

(a) *General requirements.* (1) Each refiner or importer is required to have its individual baseline determination methodology, resulting baseline fuel parameter, volume and emissions values, and 1990–1993 blendstock-to-gasoline ratios (per § 80.102) verified by an auditor which meets the requirements described in this section. A refiner or importer which has the anti-dumping statutory baseline as its individual baseline is exempt from this requirement.

(2) An auditor may be an individual or organization, and may utilize contractors and subcontractors to assist in the verification of a baseline.

(3) If an auditor is an organization, one or more persons shall be designated as primary analyst(s). The primary analyst(s) shall meet the requirements described in paragraphs (c) (2) and (3) of this section and shall be responsible for the baseline audit per paragraph (f) of this section.

(b) *Independence.* The auditor, its contractors, subcontractors and their organizations shall be independent of the submitting organization. All of the criteria listed in paragraphs (b) (1) and (2) of this section must be met by every individual involved in substantive aspects of the baseline verification.

(1) *Previous employment criteria.* (i) None of the auditing personnel, including any contractor or subcontractor personnel, involved in the baseline verification for a refiner or importer shall have been employed by the refiner or importer at any time during the three (3) years preceding the date of hire of the auditor by the refiner or importer for baseline verification purposes.

(ii) Auditor personnel may have been a contractor or subcontractor to the refiner or importer, as long as all other criteria listed in this section are met.

(iii) Auditor personnel may also have developed the baseline of the refiner or importer whose baseline they are auditing, but not as an employee (per paragraph (b)(1)(i) of this section). Those involved only in the development of the baseline of the refiner or importer need not meet the requirements specified in this section.

(2) *Financial criteria.* Neither the primary analyst, nor the auditing organization nor any organization or individual which may be contracted or subcontracted to supply baseline verification expertise shall:

(i) Have received more than one quarter of its revenue from the refiner or importer during the year prior to the date of hire of the auditor by the refiner or importer for auditing purposes. Income received from the refiner or importer to develop the baseline being audited is excepted; nor

(ii) Have a total of more than 10 percent of its net worth with the refiner or importer; nor

(iii) Receive compensation for the audit which is dependent on the outcome of the audit.

(c) *Technical ability.* All of the following criteria must be met by the auditor in order to demonstrate its technical capability to perform the baseline audit:

(1) The auditor shall be technically capable of evaluating a baseline determination. It shall have personnel familiar with petroleum refining processes, including associated computational procedures, methods of product analysis and economics, and expertise in conducting the auditing process, including skills for effective data gathering and analysis.

(2) The primary analyst must understand all technical details of the entire baseline audit process.

(3)(i) The primary analyst shall have worked at least five (5) years in either refinery operations or as a consultant for the refining industry.

(ii) If one or more computer models designed for refinery planning and/or economic analysis are used in the verification of an individual baseline, the primary analyst must have at least

three (3) years experience working with the model(s) utilized in the verification.

(iii) EPA may, upon petition, waive one or more of the requirements specified in paragraph (c)(3) of this section if the technical capability of the primary analyst is demonstrated to the satisfaction of the Director of the Office of Mobile Sources, or designee.

(d) *Auditor qualification statement.* A statement documenting the qualifications of the auditor, primary analyst(s), contractors, subcontractors and their organizations must be submitted to EPA (Fuel Studies and Standards Branch, Baseline Auditor, U.S. EPA, 2565 Plymouth Rd., Ann Arbor, MI 48105).

(1) *Timing.* (i) The auditor qualification statement may be submitted by the refiner or importer prior to baseline submission (per § 80.93) or by a potential auditor at any time. The auditor will be deemed certified when all qualifications are met, to the satisfaction of the Director of the Office of Mobile Sources, or designee. If no response is received from EPA within 45 days of application or today's date, whichever is later, the auditor shall be deemed certified.

(ii) The auditor qualification statement may be submitted by the refiner or importer with its baseline submission (per § 80.93). If the auditor does not meet the criteria specified in this section, the baseline submission will not be accepted.

(2) *Content.* The auditor qualification statement must contain all of the following information and may contain additional information which may aid EPA's review of the qualification statement:

(i) The name and address of each person and organization involved in substantive aspects of the baseline audit, including the auditor, primary analyst(s), others within the organization, and contractors and subcontractors;

(ii) The refiners and/or importers for which the auditor, its contractors and subcontractors and their organizations do not meet the independence criteria described in paragraph (b) of this section; and

(iii) The technical qualifications and experience of each person involved in the baseline audit, including a showing that the requirements described in paragraph (c) of this section are met.

(e) *Refiner and importer responsibility.* (1) Each refiner and importer required to have its baseline verified by an auditor (per paragraph (a)(1) of this section) is responsible for utilizing an auditor for baseline verification which meets the requirements specified in paragraphs (b) and (c) of this section.

(2) A refiner's or importer's baseline submission will not be accepted until it has been verified using an auditor which meets the requirements specified in paragraphs (b) and (c) of this section.

(f) *Auditor responsibilities.* (1) The auditor must verify that all baseline submission requirements are fulfilled. This includes, but is not limited to, the following:

(i) Verifying that all data is correctly accounted for;

(ii) Verifying that all calculations are performed correctly;

(iii) Verifying that all adjustments to the data and/or calculations to account for post-1990 data, work-in-progress, and/or extenuating or other circumstances, as allowed per § 80.91, are valid and performed correctly.

(2) The primary analyst shall prepare and sign a statement, to be included in the baseline submission of the refiner or importer, stating that:

(i) He/she has thoroughly reviewed the sampling methodology and baseline calculations; and

(ii) To the best of his/her knowledge, the requirements and intentions of the rulemaking are met in the baseline determination; and

(iii) He/she agrees with the final baseline parameter, volume and emission values listed in the baseline submission.

(3) The auditor may be subject to debarment under U.S.C. 1001 if it displays gross incompetency, intentionally commits an error in the verification process or misrepresents itself or information in the baseline verification.

§ 80.93 Individual baseline submission and approval.

(a) *Submission timing.* (1) Each refiner, blender or importer shall submit two copies of its individual baseline to EPA (Fuel Studies and Standards Branch, Baseline Submission, U.S. EPA, 2565 Plymouth Rd., Ann Arbor, MI 48105) not later than June 1, 1994.

(2) If a refiner must collect data after December 15, 1993 (per § 80.91(d)(2)), it shall submit two copies of its individual baseline to EPA (per § 80.93(a)(1)) by September 1, 1994.

(3)(i) All petitions required for baseline adjustments or methodology deviations will be approved or disapproved by the Director of the Office of Mobile Sources, or designee. All instances where a "showing" or other proof is required are also subject to approval by the Director of the Office of Mobile Sources, or designee.

(ii) Auditor-verified petitions, "showings" and other associated proof may be submitted to EPA (per § 80.93(a)(1)) prior to the official submittal of the entire baseline determination. EPA will attempt to review and approve, disapprove or otherwise comment on the petition, etc., prior to the deadline for baseline submittal.

(iii) In the event that EPA does not comment on the petition prior to the deadline for baseline submittal, the refiner or importer must still comply with the applicable baseline submittal deadline.

(4) If a baseline recalculation is required per § 80.91(f), documentation and recalculation of all affected baselines shall be submitted to EPA within 30 days of the previous baseline(s) becoming inaccurate due to the circumstances outlined in § 80.91(f).

(b) *Submission content.* (1) Individual baseline submissions shall include, at minimum, the information specified in this paragraph (b).

(i) During its review and evaluation of the baseline submission, EPA may require a refiner or importer to submit additional information in support of the baseline determination.

(ii) Additional information which may assist EPA during its review and evaluation of the baseline may be included at the submitter's discretion.

(2) Administrative information shall include:

(i) Name and business address of the refiner or importer;

(ii) Name, business address and business phone number of the company contact;

(iii) Address and physical location of each refinery, terminal or import facility;

(iv) Address and physical location where documents which are supportive of the baseline determination for each facility are kept;

(3) The chief executive officer statement shall be:

(i) A statement signed by the chief executive officer of the company, or designee, which states that:

(A) The company is complying with the requirements as a refiner, blender or importer, as appropriate;

(B) The data used in the baseline determination is the extent of the data available for the determination of all required baseline fuel parameters;

(C) All calculations and procedures followed per §§ 80.90 through 80.93 have been done correctly;

(D) Proper adjustments have been made to the data or in the calculations, as applicable;

(E) The requirements and intentions of the rulemaking have been met in determining the baseline fuel parameters; and

(F) The baseline fuel parameter values determined for each facility represent that facility's 1990 gasoline to the fullest extent possible.

(ii) A refiner or importer which is permitted to utilize the parameter values specified in § 80.91(c)(5), and does so, shall submit a statement signed by the chief executive officer of the company, or designee, indicating that insufficient data exist for a baseline determination by the types of data allowed for that entity, as specified in § 80.91.

(4) The auditor-related requirements are:

(i) Name, address, telephone number and date of hire of each auditor hired for baseline verification, whether or not the auditor was retained through the baseline approval process.

(ii) Identification of the auditor responsible for the verification. A copy of this auditor's qualification statement, per § 80.92, must be included if the auditor has not been approved by EPA, per § 80.92;

(iii) Indication of the primary analyst(s) involved in each refinery's baseline verification; and

(iv) The signed auditor verification statement, per § 80.92.

(5) The following baseline information for each refinery, refiner or importer, as applicable, shall be provided:

(i) Individual baseline fuel parameter values, on an oxygenated and non-oxygenated basis, and on a summer and winter basis, per § 80.91;

(ii) Individual baseline exhaust emissions shall be shown separately, on a summer, winter and annual average basis (per § 80.90) as follows:

(A) Simple model exhaust benzene emissions;

(B) Complex model exhaust benzene emissions;

(C) Complex model exhaust toxics emissions, for Phase I;

(D) Complex model exhaust NO_X emissions, for Phase I, using oxygenated individual baseline fuel parameters;

(E) Complex model exhaust NO_X emissions, for Phase I, using non-oxygenated individual baseline fuel parameters;

(F) Complex model exhaust toxics emissions, for Phase II;

(G) Complex model exhaust NO_X emissions, for Phase II, using oxygenated individual baseline fuel parameters; and

(H) Complex model exhaust NO_X emissions, for Phase II, using non-oxygenated individual baseline fuel parameters;

(iii) Individual 1990 baseline gasoline volumes, per § 80.91, shall be shown separately on a summer, winter and annual average basis; and

(iv) Blendstock-to-gasoline ratios for each calendar year 1990 through to 1993, per § 80.102.

(6) Confidentiality claim.

(i) Upon approval of an individual baseline, EPA will publish the individual standards for each refinery, blender or importer in the **Federal Register**. Such information shall include baseline emissions as specified in § 80.90 and 125% of the individual baseline values for sulfur, olefins and T90.

(ii) Information in the baseline submission which the submitter desires be considered confidential business information (per 40 CFR part 2, subpart B) must be clearly identified. Information specified in paragraph (b)(5) of this section shall not be considered confidential.

(7) Information related to baseline determination as specified in § 80.91 and paragraph (c) of this section.

(c) *Additional baseline submission requirements when Method 1-, 2- and/or 3-type data is utilized.* All requirements of this paragraph shall be reported separately for each facility, unless the facilities are closely integrated, per § 80.91.

(1) *General.* The following information shall be provided:

(i) The number of months in 1990 during which the facility was operating;

(ii) 1990 summer gasoline production volume, per § 80.91, total and by grade, for all gasoline produced but not exported;

(iii) 1990 winter gasoline production volume, per § 80.91, total and by grade, for all gasoline produced, excluding gasoline exported; and

(iv) Whether this facility is actually two facilities which are closely integrated, per § 80.91.

(2) *Baseline values.* The following shall be included for each fuel parameter for which a baseline value is required, per § 80.91:

(i) Narrative of the development of the baseline value of the fuel parameter, including discussion of the sampling and calculation methodologies, technical judgment used, effects of petition results on calculated values, and any additional information which may assist EPA in its review of the baseline;

(ii) Identification of the data-type(s), per § 80.91, used in the determination of a given fuel parameter;

(iii) Identification of test method. If not per § 80.46, include a narrative, explain differences and describing adequacy, per § 80.91;

(iv) Documentation that the minimum sampling requirements per § 80.91 have been met;

(v) Petition and narrative, if needed, for use of less than the minimum required data, per § 80.91;

(vi) Identification of instances of sample compositing per § 80.91;

(vii) Identification of streams for which one or more parameter values were deemed negligible per § 80.91; and

(viii) Discussion of the calculation of oxygenated or non-oxygenated fuel parameter values from non-oxygenated or oxygenated values, respectively, per § 80.91.

(3) *Method 1.* If Method 1-type data is utilized in the baseline determination, the following information on 1990 batches of gasoline, or shipments if not batch blended, are required by grade shall be provided:

(i) First and last sampling dates;

(ii) The following shall be indicated separately on a summer and winter basis, by month:

(A) Number of months sampled;

(B) Number of 1990 batches, or shipments if not batch blended;

(C) Total volume of all batches or shipments;

(D) Number of batches or shipments sampled;

(E) Total volume of all batches or shipments sampled;

(F) Baseline fuel parameter value, per § 80.91; and

(iii) A showing that data was available on every batch of 1990 gasoline, if applicable, per § 80.91 (b)(3) or (b)(4).

(4) *Method 2.* If Method 2-type data is utilized in the baseline determination, the following information on each type of 1990 blendstock used in the refinery's gasoline are required, by blendstock type shall be provided:

(i) First and last sampling dates; and

(ii) The following shall be indicated separately on a summer and winter basis, by month:

(A) Number of months sampled;

(B) Each type of blendstock used in 1990 gasoline and total number of blendstocks. Include all blendstocks produced, purchased or otherwise received which were blended to produce gasoline within the facility. Identify all blendstocks not produced in the facility but used in the facility's 1990 gasoline;

(C) Total volume of each blendstock used in gasoline in 1990;

(D) Identification of blendstock streams as batch or continuous;

(E) Number of blendstock samples from continuous blendstock streams;

(F) Number of blendstock samples from batch processes, including volume of each batch sampled; and

(G) Baseline fuel parameter value, per § 80.91.

(5) *Method 3, blendstock data.* The following information on each type of post-1990 gasoline blendstock used in the refinery's gasoline are required, by blendstock type shall be provided:

(i) First and last sampling dates;

(ii) The following shall be indicated separately on a summer and winter basis, by month:

(A) Number of post-1990 months sampled;

(B) Each type of blendstock used in 1990 gasoline and total number of blendstocks. Include all blendstocks produced, purchased or otherwise received which were blended to produce gasoline within the facility. Identify all blendstocks not produced in the facility but used in the facility's 1990 gasoline;

(C) Total volume of each blendstock used in gasoline in 1990;

(D) Identification of post-1990 blendstock streams as batch or continuous;

(E) Number of post-1990 blendstock samples from continuous blendstock streams;

(F) Number of post-1990 blendstock samples from batch processes, including volume of each batch sampled; and

(G) Baseline fuel parameter value, per § 80.91; and

(iii) Support documentation showing that the criteria of § 80.91 for using Method 3-type blendstock data are met.

(6) *Method 3, post-1990 gasoline data.* The following information on post-1990 batches of gasoline, or shipments if not batch blended, are required by grade:

(i) First and last sampling dates;

(ii) The following shall be indicated separately for summer and winter production, by month:

(A) Number of post-1990 months sampled;

(B) Number of post-1990 batches, or shipments if not batch blended;

(C) Total volume of all post-1990 batches or shipments;

(D) Number of post-1990 batches or shipments sampled;

(E) Volume of each post-1990 batch or shipment sampled; and

(F) Baseline fuel parameter value, per § 80.91; and

(iii) Support documentation showing that the criteria of § 80.91 for using post-1990 gasoline data are met.

(7) *Work-in-progress (WIP).* All of the following must be included in support of a WIP adjustment (per § 80.91(e)(5)):

(i) Petition including identification of the specific baseline emission(s) or parameter for which the WIP adjustment is desired;

(ii) Showing that all WIP criteria, per § 80.91(e)(5), are met;

(iii) Unadjusted and adjusted baseline fuel parameters, emissions and volume for the facility; and

(iv) Narrative, per § 80.91 (e)(5).

(8) *Extenuating circumstances.* All of the following must be included in support of an extenuating circumstance adjustment (per § 80.91 (e)(6) through (e)(7)):

(i) Petition including identification of the allowable circumstance, per § 80.91 (e)(6) through (e)(7);

(ii) Showing that all applicable criteria, per § 80.91 (e)(6) through (e)(7), are met;

(iii) Unadjusted and adjusted baseline fuel parameters, emissions and volume for the facility; and

(iv) Narrative, per § 80.91.

(9) *Other baseline information.* Narrative discussing any aspects of the baseline determination not already indicated per the requirements of this paragraph (c) shall be provided.

(10) *Refinery information.* The following information, on a summer or winter basis, shall be provided:

(i) Refinery block flow diagram, showing principal refining units;

(ii) Principal refining unit charge rates and capacities;

(iii) Crude types utilized (names, gravities, and sulfur content) and crude charge rates; and

(iv) Information on the following units, if utilized in the refinery:

(A) Catalytic Cracking Unit: conversion, unit yields, gasoline fuel parameter values (per § 80.91(a)(2));

(B) Hydrocracking Unit: unit yields, gasoline fuel parameter values (per § 80.91(a)(2));

(C) Catalytic Reformer: unit yields, severities;

(D) Bottoms Processing Units (including, but not limited to, coking, extraction and hydrogen processing): gasoline stream yields;

(E) Yield structures for other principal units in the refinery (including but not limited to Alkylation, Polymerization, Isomerization, Etherification, Steam Cracking).

§§ 80.94–80.100 [Reserved]

§ 80.101 Standards applicable to refiners and importers.

Any refiner or importer of conventional gasoline shall meet the standards specified in this section over the specified averaging period, beginning on January 1, 1995.

(a) *Averaging period.* The averaging period for the standards specified in this section shall be January 1 through December 31.

(b) *Conventional gasoline compliance standards*—(1) *Simple model standards.* The simple model standards are the following:

(i) Annual average exhaust benzene emissions, calculated according to paragraph (g)(1)(i) of this section, shall not exceed the refiner's or importer's compliance baseline for exhaust benzene emissions;

(ii) Annual average levels of sulfur shall not exceed 125% of the refiner's or importer's compliance baseline for sulfur;

(iii) Annual average levels of olefins shall not exceed 125% of the refiner's or importer's compliance baseline for olefins; and

(iv) Annual average values of T–90 shall not exceed 125% of the refiner's or importer's compliance baseline for T–90.

(2) *Optional complex model standards.* Annual average levels of exhaust benzene emissions, weighted by volume for each batch and calculated using the applicable complex model under § 80.45, shall not exceed the refiner's or importer's 1990 average exhaust benzene emissions.

(3) *Complex model standards.* Annual average levels of exhaust toxics emissions and NO_X emissions, weighted by volume for each batch and calculated using the applicable complex model under § 80.45, shall not exceed the refiner's or importer's 1990 average exhaust toxics emissions and NO_X emissions, respectively.

(c) *Applicability of standards.* (1) For each averaging period prior to January 1, 1998, a refiner or importer shall be subject to either the Simple Model or Optional Complex Model Standards, at their option, except that any refiner or importer shall be subject to:

(i) The Simple Model Standards if the refiner or importer uses the Simple Model Standards for reformulated gasoline; or

(ii) The Optional Complex Model Standards if the refiner or importer used the Complex Model Standards for reformulated gasoline.

(2) Beginning January 1, 1998, each refiner and importer shall be subject to the Complex Model Standards for each averaging period.

(d) *Product to which standards apply.* Any refiner for each refinery, or any importer, shall include in its compliance calculations:

(1) Any conventional gasoline produced or imported during the averaging period;

(2) Any non-gasoline petroleum products that are produced or imported and sold or transferred from the refinery or group of refineries or importer during the averaging period, if required pursuant to § 80.102(e)(2), unless the

refiner or importer is able to establish in the form of documentation that the petroleum products were used for a purpose other than the production of gasoline within the United States;

(3) Any gasoline blending stock produced or imported during the averaging period which becomes conventional gasoline solely upon the addition of oxygenate;

(4)(i) Any oxygenate that is added to conventional gasoline, or gasoline blending stock as described in paragraph (d)(3) of this section, where such gasoline or gasoline blending stock is produced or imported during the averaging period;

(ii) In the case of oxygenate that is added at a point downstream of the refinery or import facility, the oxygenate may be included only if the refiner or importer can establish the oxygenate was in fact added to the gasoline or gasoline blendstock produced, by showing that the oxygenate was added by:

(A) The refiner or importer; or

(B) By a person other than the refiner or importer, provided that the refiner or importer:

(1) Has a contract with the oxygenate blender that specifies procedures to be followed by the oxygenate blender that are reasonably calculated to ensure blending with the amount and type of oxygenate claimed by the refiner or importer; and

(2) Monitors the oxygenate blending operation to ensure the volume and type of oxygenate claimed by the refiner or importer is correct, through periodic audits of the oxygenate blender designed to assess whether the overall volumes and type of oxygenate purchased and used by the oxygenate blender are consistent with the oxygenate claimed by the refiner or importer and that this oxygenate was blended with the refiner's or importer's gasoline or blending stock, periodic sampling and testing of the gasoline produced subsequent to oxygenate blending, and periodic inspections to ensure the contractual requirements imposed by the refiner or importer on the oxygenate blender are being met.

(e) *Product to which standards do not apply.* Any refiner for each refinery, or any importer, shall exclude from its compliance calculations:

(1) Gasoline that was not produced at the refinery or was not imported by the importer;

(2) Blendstocks that have been included in another refiner's compliance calculations, pursuant to § 80.102(e)(2) or otherwise;

(3) Gasoline that meets the enforcement exemption for California gasoline under § 80.81; and

(4) Gasoline that is exported.

(f) *Compliance baseline determinations.* (1) In the case of any refiner or importer for whom an individual baseline has been established under § 80.91, the individual baseline for each parameter or emissions performance shall be the compliance baseline for that refiner or importer.

(2) In the case of any refiner or importer for whom the anti-dumping statutory baseline applies under § 80.91, the anti-dumping statutory baseline for each parameter or emissions performance shall be the compliance baseline for that refiner or importer.

(3) In the case of a party that is both a refiner and an importer, and for whom an individual 1990 baseline has not been established for the imported product under § 80.91(b)(4), the compliance baseline for the imported product shall be the 1990 volume weighted average of all of the refiner's individual refinery baselines.

(4) Any compliance baseline under paragraph (f) (1) or (3) of this section shall be adjusted for each averaging period as follows:

(i) The 1990 equivalent conventional gasoline volume for an averaging period is calculated according to the following formula:

$$V_{eq} = V_c - \left(\frac{((V_r + V_c) - V_{1990}) \times V_c)}{V_r + V_c} \right)$$

where

V_{eq}=the 1990 equivalent conventional gasoline volume

V_{1990}=the 1990 volume of gasoline as determined under § 80.91(f)(1)

V_r=the total volume of reformulated gasoline produced or imported by a refiner or importer during the averaging period excluding gasoline which meets the enforcement exemptions of § 80.81

V_c=the total volume of conventional gasoline produced or imported by a refiner or importer during the averaging period excluding gasoline which meets the enforcement exemptions of § 80.81

(ii)(A) If the total volume of the conventional gasoline produced or imported by the refiner or importer during the averaging period is equal to or less than that refiner's or importer's 1990 equivalent conventional gasoline volume, the compliance baseline for each parameter shall be that refiner's or importer's individual 1990 baseline; or

(B) If the total volume of the conventional gasoline produced or imported by the refiner or importer is greater than that refiner's or importer's 1990 equivalent conventional gasoline volume, the compliance baseline for each parameter or emissions performance shall be calculated according to the following formula:

$$CB_i = \left(\frac{(B_i \times V_{eq}) + (DB_i \times (V_c - V_{eq}))}{V_c} \right)$$

where

CB_i=the compliance baseline value for parameter or emissions product i

B_i=the refiner's or importer's individual baseline value for parameter i calculated according to the methodology in § 80.91

V_{eq}=the 1990 equivalent conventional gasoline volume for the averaging period, calculated pursuant to paragraph (f)(4)(iii) of this section

DB_i=the anti-dumping statutory baseline value for parameter i, as specified at § 80.91(c)(5)

V_c=the total volume of conventional gasoline and other products included under paragraph (d) of this section produced or imported by a refiner or importer during the averaging period

(g) *Compliance calculations.* (1) In the case of any refiner or importer subject to an individual refinery baseline, the annual average value for each parameter or emissions performance during the averaging period, calculated according to the following methodologies, shall be less than or equal to the refiner's or importer's standard under paragraph (b) of this section for that parameter.

(i) Exhaust benzene emissions under the Simple Model for an averaging period are calculated as follows:

EXHBEN=1.884+(0.949×BZ)+(0.113×(AR–BZ))

where

EXHBEN=the average exhaust benzene emissions for the averaging period

BZ=the average benzene content for the averaging period

AR=the average aromatics content for the averaging period

(ii) The average value for each parameter for an averaging period shall be calculated as follows:

$$APARM = \left(\frac{\sum_{i=1}^{n} (V_i \times PARM_i \times SG_i)}{\sum_{i=1}^{n} V_i \times SG_i} \right)$$

where

APARM=the average value for the parameter being evaluated

V_i=the volume of conventional gasoline and other products included under paragraph (d) of this section, in batch i

$PARM_i$=the value of the parameter being evaluated for batch i as determined in accordance with the test methods specified in § 80.46

n=the number of batches of conventional gasoline and other products included under paragraph (d) of this section produced or imported during the averaging period

SG^i=specific gravity of batch i (only applicable for properties determined on a weight percent or ppm basis)

(iii) Exhaust benzene emissions performance for each batch shall be calculated in accordance with the applicable model under § 80.45.

(iv) Exhaust toxics emissions performance for each batch shall be calculated in accordance with the applicable model under § 80.45.

(v) Exhaust NO_X emissions performance for each batch shall be calculated in accordance with the applicable model under § 80.45.

(2) In the case of any refiner or importer subject to the anti-dumping statutory baseline, the refiner or importer shall determine compliance using the following methodology:

(i) Calculate the compliance total for the averaging period for sulfur, T–90, olefins, exhaust benzene emissions, exhaust toxics and exhaust NO_X emissions, as applicable, based upon the anti-dumping statutory baseline value for that parameter using the formula specified at § 80.67.

(ii) Calculate the actual total for the averaging period for sulfur, T–90, olefins, exhaust benzene emissions, exhaust toxics and exhaust NO_X emissions, as applicable, based upon the value of the parameter for each batch of conventional gasoline and gasoline blendstocks, if applicable, using the formula specified at § 80.67.

(iii) The actual total for exhaust benzene emissions, exhaust toxics and exhaust NO_X emissions, shall not exceed the compliance total, and the actual totals for sulfur, olefins and T–90 shall not exceed 125% of the compliance totals, as required under the applicable model.

(3) In the case of any batch of gasoline that is produced by combining blendstock with gasoline, where the gasoline portion of the blend is not included in the compliance calculation, the emissions performance for exhaust benzene, exhaust toxics, and exhaust NO_X emissions for the blendstock shall be:

(i)(A) The emissions performance of a gasoline that would be produced by combining the blendstock used at the volume percentage used, with a gasoline that has properties that are equal to the refiner's or importer's anti-dumping baseline; minus

(B) The emissions performance of a gasoline that has properties that are equal to the refiner's or importer's anti-dumping baseline.

(ii) The volume weighted net emissions performance for exhaust benzene, exhaust toxics, and exhaust NO_X emissions, as applicable, for all batches of gasoline that are produced during the averaging period by combining blendstock with gasoline, shall be equal to or less than zero.

(iii) The value of those properties measured on a weight percent or ppm basis shall be adjusted for the specific gravity of the gasoline and blendstocks used for the purposes of calculations under paragraph (g)(3) of this section.

(iv) For blends which contain greater than 1.50 volume percent ethanol, the RVP of the final blend shall be 1.0 psi greater than the RVP of the base gasoline and blendstocks without the ethanol for the purposes of calculations under paragraph (g)(3) of this section.

(v) For blends containing less than 1.50 volume percent ethanol, the RVP of the base gasoline and blendstocks without ethanol shall be used for the purposes of calculations under paragraph (g)(3) of this section.

(4) Compliance calculations under this subpart E shall be based on computations to the same degree of accuracy that are specified in establishing individual baselines under § 80.91.

(5) The emissions performance of gasoline that has an RVP that is equal to or less than the RVP required under § 80.27 ("summer gasoline") shall be determined using the applicable summer complex model under § 80.45.

(6) The emissions performance of gasoline that has an RVP greater than the RVP required under § 80.27 ("winter gasoline") shall be determined using the applicable winter complex model under § 80.45, using an RVP of 8.7 psi for compliance calculation purposes under this subpart E.

(7)(i) For the 1998 averaging period any refiner or importer may elect to determine compliance with the requirement for exhaust NO_X emissions performance either with or without the inclusion of oxygenates in its compliance calculations, in accordance with § 80.91(e)(4), provided that the baseline exhaust NO_X emissions performance is calculated using the same with- or without-oxygen approach.

(ii)(A) Any refiner or importer must use the with- or without-oxygen approach elected under paragraph (g)(7)(i) of this section for all subsequent averaging periods; except that

(B) In the case of any refiner or importer who elects to determines compliance for the calendar year 1998 averaging period without the inclusion of oxygenates, such refiner or importer may elect to include oxygenates in its compliance calculations for the 1999 averaging period.

(iii) Any refiner or importer who elects to use the with-oxygen approach under paragraph (g)(7)(ii)(B) of this section must use this approach for all subsequent averaging periods.

(h) *Refinery grouping for determining compliance.* (1) Any refiner that operates more than one refinery may:

(i) Elect to achieve compliance individually for the refineries; or

(ii) Elect to achieve compliance on an aggregate basis for a group, or for groups, of refineries, some of which may be individual refineries; provided that

(iii) Compliance is achieved for each refinery separately or as part of a group; and

(iv) The data for any refinery is included only in one compliance calculation.

(2) Any election by a refiner to group refineries under paragraph (h)(1) of this section shall:

(i) Be made as part of the report for the 1995 averaging period required by § 80.105;

(ii) Apply for the 1995 averaging period and for each subsequent averaging period, and may not thereafter be changed; and

(iii) Apply for purposes of the blendstock tracking and accounting provisions under § 80.102.

(3)(i) Any standards under this section shall apply, and compliance calculations shall be made, separately for each refinery or refinery group; except that

(ii) Any refiner that produces conventional gasoline for distribution to a specified geographic area which is the subject of a petition approved by EPA pursuant to § 80.91(f)(3) shall achieve compliance separately for gasoline supplied to such specified geographic area.

(i) *Sampling and testing.* (1) Any refiner or importer shall for each batch of conventional gasoline, and other products if included paragraph (d) of this section, prior to such gasoline or product leaving the refinery or import facility:

(i)(A) Determine the value of each of the properties required for determining compliance with the standards that are applicable to the refiner or importer, by collecting and analyzing a representative sample of gasoline or blendstock taken from the batch, using the methodologies specified in § 80.46; except that

(B) Any refiner that produces gasoline by combining blendstock with gasoline that has been included in the compliance calculations of another refiner or of an importer may for such gasoline meet this sampling and testing requirement by collecting and analyzing a representative sample of the blendstock used subsequent to each receipt of such blendstock if the compliance calculation method specified in paragraph (g)(3) of this section is used.

(ii) Assign a number to the batch (the "batch number"), as specified in § 80.65(d)(3);

(2) For the purposes of meeting the sampling and testing requirements under paragraph (i)(1) of this section, any refiner or importer may, prior to analysis, combine samples of gasoline collected from more than one batch of gasoline or blendstock ("composite sample"), and treat such composite sample as one batch of gasoline or blendstock provided that the refiner or importer:

(i) Meets each of the requirements specified in § 80.91(d)(4)(iii) for the samples contained in the composite sample;

(ii) Combines samples of gasoline that are produced or imported over a period no longer than one month;

(iii) Uses the total of the volumes of the batches of gasoline that comprise the composite sample, and the results of the analyses of the composite sample, for purposes of compliance calculations under paragraph (g) of this section; and

(iv) Does not combine summer and winter gasoline, as specified under paragraphs (g) (5) and (6) of this section, in a composite sample.

§ 80.102 Controls applicable to blendstocks.

(a) For the purposes of this subpart E:

(1) All of the following petroleum products that are produced by a refiner or imported by an importer shall be considered "applicable blendstocks":

(i) Reformate;

(ii) Light coker naphtha;

(iii) FCC naphtha;

(iv) Benzene/toluene/xylene;

(v) Pyrolysis gas;

(vi) Aromatics;

(vii) Polygasoline; and

(viii) Dimate; and

(2) Any gasoline blendstock with properties such that, if oxygenate only is added to the blendstock the resulting blend meets the definition of gasoline under § 80.2(c), shall be considered gasoline.

(b)(1) Any refiner or importer of conventional gasoline or blendstocks shall determine the baseline blendstock-to-gasoline ratio for each calendar year 1990 through 1993 according to the following formula:

$$BG_{by} = \frac{V_{bs}}{V_g}$$

Where:

BG_{by}=Blendstock-to-gasoline ratio for base year

V_{bs}=Volume of applicable blendstock produced or imported and transferred to others during the calendar year, and used in to produce gasoline

V_g=Volume of gasoline produced or imported during the calendar year

(2)(i) Only those volumes of applicable blendstocks for which the refiner is able to demonstrate the blendstock was used in the production of gasoline may be included in baseline blendstock-to-gasoline ratios under paragraph (b)(1) of this section.

(ii) The baseline volume data for applicable blendstocks and gasoline shall be confirmed through the baseline audit requirements specified in § 80.92 and submitted in accordance with the requirements of § 80.93.

(c) Any refiner or importer shall calculate the baseline cumulative blendstock-to-gasoline ratio according to the following formula:

$$BGC_{base} = \frac{\sum_{i=1}^{n} V_{bs,i}}{\sum_{i=1}^{n} V_{g,i}}$$

Where:

BGC_{base}=Baseline cumulative blendstock-to-gasoline ratio

$V_{bs,\ i}$=Volume of applicable blendstock produced or imported and transferred to others during calendar year i

$V_{g,\ i}$=Volume of gasoline produced or imported during calendar year i

i=each year, 1990 through 1993, for which a blendstock-to-gasoline ratio is calculated under paragraph (b) of this section

(d)(1) For each averaging period, any refiner or importer shall:

(i) Determine the averaging period blendstock-to-gasoline ratio according to the following formula:

$$BG_a = \frac{V_{bs}}{V_g}$$

Where:

BG_a=Blendstock-to-gasoline ratio for the current averaging period

V_{bs}=Volume of applicable blendstock produced or imported during the averaging period and subsequently transferred to others

V_g=Volume of conventional gasoline, reformulated gasoline, and RBOB produced or imported during the averaging period

(ii) For each averaging period until January 1, 1998, calculate the peak year blendstock-to-gasoline ratio percentage change according to the following formula:

$$PC_p = \left(\frac{BG_a - BG_p}{BG_p} \right) \times 100$$

Where:

PC_p=Peak year blendstock-to-gasoline ratio percentage change

BG_a=Blendstock-to-gasoline ratio for the averaging period calculated under paragraph (d)(1)(i) of this section

BG_p=Largest one year blendstock-to-gasoline ratio calculated under paragraph (b) of this section

(2) Beginning on January 1, 1998, for each averaging period any refiner or importer shall:

(i) Determine the running cumulative compliance period blendstock-to-gasoline ratio according to the following formula:

$$BGC_{comp} = \frac{\sum_{i=1}^{n} V_{bs,i}}{\sum_{i=1}^{n} V_{g,i}}$$

Where:

BGC_{comp}=Running cumulative compliance period blendstock-to-gasoline ratio

$V_{bs,i}$=Volume of applicable blendstock produced or imported and transferred to others during averaging period i

$V_{g,i}$=Volume of conventional gasoline, reformulated gasoline, and RBOB produced or imported during averaging period i

i=The current averaging period, and each of the three immediately preceding averaging periods

(ii) Calculate the cumulative blendstock-to-gasoline ratio percentage change according to the following formula:

$$PC_c = \left(\frac{BGC_{comp} - BGC_{base}}{BGC_{base}} \right) \times 100$$

Where:

PC_c=Cumulative blendstock-to-gasoline ratio percentage change

BGC_{comp}=Running cumulative compliance period blendstock-to-gasoline ratio as determined in paragraph (d)(2)(i) of this section

BGC_{base}=Baseline cumulative blendstock-to-gasoline ratio calculated under paragraph (c) of this section

(3) For purposes of this paragraph (d), all applicable blendstocks produced or imported shall be included, except those for which the refiner or importer has sufficient evidence in the form of documentation that the blendstocks were:

(i) Exported;

(ii) Used for other than gasoline blending purposes;

(iii) Transferred to a refiner that used the blendstock as a "feedstock" in a refining process during which the blendstock underwent a substantial chemical or physical transformation; or

(iv) Transferred between refineries which have been grouped pursuant to § 80.101(h) by a refiner for the purpose of determining compliance under this subpart.

(e)(1) Any refiner or importer shall have exceeded the blendstock-to-gasoline ratio percentage change threshold if:

(i) The peak year blendstock-to-gasoline ratio percentage change calculated under paragraph (d)(1)(ii) of this section is more than ten; or

(ii) Beginning on January 1, 1998, the cumulative blendstock-to-gasoline ratio percentage change calculated under paragraph (d)(2)(ii) of this section is more than ten.

(2) Any refiner or importer that exceeds the blendstock-to-gasoline ratio percentage change threshold shall, without further notification:

(i) Include all blendstocks produced or imported and transferred to others in its compliance calculations for two averaging periods beginning on January 1 of the averaging period subsequent to the averaging period when the exceedance occurs;

(ii) Provide transfer documents to the recipient of such blendstock that contain the language specified at § 80.106(b); and

(iii) Transfer such blendstock in a manner such that the ultimate blender of such blendstocks has a reasonable basis to know that such blendstock has been accounted for.

(3) Any refiner or importer that has previously exceeded the blendstock-to-gasoline ratio percentage change threshold, and subsequently exceeds the threshold for an averaging period and is not granted a waiver pursuant to paragraph (f)(2)(i) of this section, shall, without further notification, meet the requirements specified in paragraphs (e)(2) (i) through (iii) of this section for four averaging periods, beginning on January 1 of the averaging period following the averaging period when the subsequent exceedance occurs.

(f)(1) The refiner or importer blendstock accounting requirements specified under paragraph (e) of this section shall not apply in the case of any refiner or importer:

(i) Whose 1990 baseline value for each regulated fuel property and emission performance, as determined in accordance with §§ 80.91 and 80.92, is less stringent than the anti-dumping statutory baseline value for that parameter or emissions performance;

(ii) Whose averaging period blendstock-to-gasoline ratio, calculated according to paragraph (d)(1)(i) of this section, is equal to or less than .0300; or

(iii) Who obtains a waiver from EPA, provided that a petition for such a waiver is filed no later than fifteen days following the end of the averaging period for which the blendstock-to-gasoline ratio percentage change threshold is exceeded.

(2)(i) EPA may grant the waiver referred to in paragraph (f)(1)(iii) of his section if the level of blendstock production was the result of extreme or unusual circumstances (e.g., a natural disaster or act of God) which clearly are outside the control of the refiner or importer, and which could not have been avoided by the exercise of prudence, diligence, and due care.

(ii) Any petition filed under paragraph (f) of this section shall include information which describes the extreme or unusual circumstance which caused the increased volume of blendstock produced or imported, the steps taken to avoid the circumstance, and the steps taken to remedy or mitigate the effect of the circumstance.

(g) Notwithstanding the requirements of paragraphs (a) through (f) of this section, any refiner or importer that transfers applicable blendstock to another refiner or importer with a less stringent baseline requirement, either directly or indirectly, for the purpose of evading a more stringent baseline requirement, shall include such blendstock(s) in determining compliance with the applicable requirements of this subpart.

§ 80.103 Registration of refiners and importers.

Any refiner or importer of conventional gasoline must register with the Administrator in accordance with the provisions specified at § 80.76.

§ 80.104 Record keeping requirements.

Any refiner or importer shall maintain records containing the information as required by this section.

(a) Beginning in 1995, for each averaging period:

(1) Documents containing the information specified in paragraph (a)(2) of this section shall be obtained for:

(i) Each batch of conventional gasoline, and blendstock if blendstock accounting is required under § 80.102(e)(2); or

(ii) Each batch of blendstock received in the case of any refiner that determines compliance on the basis of blendstocks properties under § 80.101(g)(3).

(2)(i) The results of tests performed in accordance with § 80.101(i);

(ii) The volume of the batch;

(iii) The batch number;

(iv) The date of production, importation or receipt;

(v) The designation regarding whether the batch is summer or winter gasoline;

(vi) The product transfer documents for any conventional gasoline produced or imported;

(vii) The product transfer documents for any conventional gasoline received;

(viii) For any gasoline blendstocks received by or transferred from a refiner or importer, documents that reflect:

(A) The identification of the product;

(B) The date the product was transferred; and

(C) The volume of product;

(ix) In the case of any refinery-produced or imported products listed in § 80.102(a) that were transferred for other than gasoline blending purposes, documents which demonstrate that other purpose; and

(x) In the case of oxygenate that is added by a person other than the refiner or importer under § 80.101(d)(4)(ii)(B), documents that support the volume of oxygenate claimed by the refiner or importer, including the contract with the oxygenate blender and records relating to the audits, sampling and testing, and inspections of the oxygenate blender operation.

(b) Any refiner or importer shall retain the documents required in this section for a period of five years from the date the conventional gasoline or blendstock is produced or imported, and deliver such documents to the Administrator of EPA upon the Administrator's request.

§ 80.105 Reporting requirements.

(a) Beginning with the 1995 averaging period, and for each subsequent averaging period, any refiner for each refinery or group of refineries at which any conventional gasoline is produced, and any importer that imports any conventional gasoline, shall submit to the Administrator a report which contains the following information:

(1) The total gallons of conventional gasoline produced or imported;

(2) The total gallons of applicable blendstocks produced or imported and transferred to others;

(3) The total gallons of blendstocks included in compliance calculations pursuant to § 80.102(e)(2);

(4) The average exhaust benzene emissions, sulfur, olefins and T90 if using the Simple Model; exhaust benzene emissions if using the optional Complex Model; or exhaust toxic emissions and NO_X emissions if using the Complex Model, as applicable, calculated in accordance with § 80.101;

(5) The following information for each batch of conventional gasoline or batch of blendstock included under paragraph (a) of this section:

(i) The batch number;

(ii) The date of production;

(iii) The volume of the batch;

(iv) The grade of gasoline produced (i.e., premium, mid-grade, or regular); and

(v) The properties, pursuant to § 80.101(i); and

(6) Such other information as EPA may require.

(b) The reporting requirements of paragraph (a) of this section do not apply in the case of any conventional gasoline or gasoline blendstock that is excluded from a refiner's or importer's compliance calculation pursuant to § 80.101(e).

(c) For each averaging period, each refiner and importer shall cause to be submitted to the Administrator of EPA, by May 30 of each year, a report in accordance with the requirements for the Attest Engagements of §§ 80.125 through 80.131.

(d) The report required by paragraph (a) of this section shall be:

(1) Submitted on forms and following procedures specified by the Administrator of EPA;

(2) Submitted to EPA by the last day of February each year for the prior calendar year averaging period; and

(3) Signed and certified as correct by the owner or a responsible corporate officer of the refiner or importer.

§ 80.106 Product transfer documents.

(a)(1) On each occasion when any person transfers custody or title to any conventional gasoline, the transferor shall provide to the transferee documents which include the following information:

(i) The name and address of the transferor;

(ii) The name and address of the transferee;

(iii) The volume of gasoline being transferred;

(iv) The location of the gasoline at the time of the transfer;

(v) The date of the transfer;

(vi) In the case of transferors or transferees who are refiners or importers, the EPA-assigned registration number of those persons; and

(vii) The following statement: "This product does not meet the requirements for reformulated gasoline, and may not be used in any reformulated gasoline covered area."

(2) The requirements of paragraph (a)(1) of this section apply to product that becomes gasoline upon the addition of oxygenate only.

(b) On each occasion when any person transfers custody or title to any blendstock that has been included in the refiner's or importer's compliance calculations under § 80.102(e)(2), the transferor shall provide to the transferee documents which include the following statement: "For purposes of the Anti-Dumping requirements under 40 CFR Part 80, Subpart E, this blendstock has been accounted for by the refiner that produced it, and must be excluded from any subsequent compliance calculations."

§§ 80.107–80.124 [Reserved]

Subpart F—Attest Engagements

§ 80.125 Attest engagements.

(a) Any refiner, importer, and oxygenate blender subject to the requirements of this subpart F shall engage an independent certified public accountant, or firm of such accountants (hereinafter referred to in this subpart F as "CPA"), to perform an agreed-upon procedures attestation engagement of the underlying documentation that forms the basis of the reports by §§ 80.75 and 80.104.

(b) The CPA shall perform the attestation engagements in accordance with the Statements on Standards for Attestation Engagements.

(c) The CPA may complete the requirements of this subpart F with the assistance of internal auditors who are employees or agents of the refiner, importer, or oxygenate blender, so long as such assistance is in accordance with the Statements on Standards for Attestation Engagements.

(d) Notwithstanding the requirements of paragraph (a) of this section, any refiner, importer, or oxygenate blender may satisfy the requirements of this subpart F if the requirements of this subpart F are completed by an auditor who is an employee of the refiner, importer, or oxygenate blender, provided that such employee:

(1) Is an internal auditor certified by the Institute of Internal Auditors, Inc. (hereinafter referred to in this subpart F as "CIA"); and

(2) Completes the internal audits in accordance with the Codification of Standards for the Professional Practice of Internal Auditing.

(e) Use of a CPA or CIA who is debarred, suspended, or proposed for debarment pursuant to the Governmentwide Debarment and Suspension Regulations, 40 CFR Part 32, or the Debarment, Suspension, and Ineligibility Provisions of the Federal Acquisition Regulations, 48 CFR part 9, subpart 9.4, shall be deemed in noncompliance with the requirements of this section.

(f) The following documents are incorporated by reference: the Statements on Standards for Attestation Engagements, Codification of

Statements on Auditing Standards, written by the American Institute of Certified Public Accountants, Inc., 1991, and published by the Commerce Clearing House, Inc., Identification Number 059021, and the Codification of Standards for the Professional Practice of Internal Auditing, written and published by the Institute of Internal Auditors, Inc., 1989, Identification Number ISBN 0–89413–207–5. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the Statements on Standards for Attestation Engagements may be obtained from the American Institute of Certified Public Accountants, Inc., 1211 Avenue of the Americas, New York, New York 10036, and copies of the Codification of Standards for the Professional Practice of Internal Auditing may be obtained from the Institute of Internal Auditors, Inc., 249 Maitland Avenue, Altamonte Springs, Florida 32701–4201. Copies may be inspected at the U.S. Environmental Protection Agency, Office of the Air Docket, 401 M Street, SW., Washington, DC., or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington DC.

§ 80.126 Definitions.

The following definitions shall apply for the purposes of this subpart F:

(a) *Averaging compliance records* shall include the calculations used to determine compliance with relevant standards on average, for each averaging period and for each quantity of gasoline for which standards must be achieved separately.

(b) *Credit trading records* shall include worksheets and EPA reports showing actual and complying totals for oxygen and benzene; credit calculation worksheets; contracts; letter agreements; and invoices and other documentation evidencing the transfer of credits.

(c) *Designation records* shall include laboratory analysis reports that identify whether gasoline meets the requirements for a given designation; operational and accounting reports of product storage; and product transfer documents.

(d) *Oxygenate blender records* shall include laboratory analysis reports; refiner, importer and oxygenate blender contracts; quality assurance program records; product transfer documents; oxygenate purchasing, inventory, and usage records; and daily tank inventory gauging reports, meter tickets, and product transfer documents.

(e) Product transfer documents shall include documents that reflect the transfer of ownership or physical custody of gasoline or blendstock, including invoices, receipts, bills of lading, manifests, and pipeline tickets.

(f) A *tender* means the physical transfer of custody of a volume of gasoline or other petroleum product all of which has the same identification (reformulated gasoline, conventional gasoline, RBOB, and other non-finished gasoline petroleum products), and characteristics (time and place of use restrictions for reformulated gasoline).

(g) *Volume records* shall include summaries of gasoline produced or imported that account for the volume of each type of gasoline produced or imported. The volumes shall be based on tank gauges or meter reports and temperature adjusted to 60 degrees Fahrenheit.

§ 80.127 Sample size guidelines.

In performing the attest engagement, the auditor shall sample relevant populations to which agreed-upon procedures will be applied using the methods specified in this section, which shall constitute a representative sample.

(a) Sample items shall be selected in such a way as to comprise a simple random sample of each relevant population; and

(b) Sample size shall be determined using one of the following options:

(1) *Option 1.* Determine the sample size using the following table:

SAMPLE SIZE, BASED UPON POPULATION SIZE

No. in population (N)	Sample size
66 and larger	29
41–65	25
26–40	20
0–25	N or 19, whichever is smaller.

(2) *Option 2.* Determine the sample size in such a manner that the sample size is equal to that which would result by using the following parameters and standard statistical methodologies:

Confidence Level—95%
Expected Error Rate—0%
Maximum Tolerable Error Rate—10%

(3) *Option 3.* The auditor may use some other form of sample selection and/or some other method to determine the sample size, provided that the resulting sample affords equal or better strength of inference and freedom from bias (as compared with paragraphs (b)(1) and (2) of this section), and that the auditor summarizes the substitute methods and clearly demonstrates their equivalence in the final report on the audit.

§ 80.128 Agreed upon procedures for refiners and importers.

The following are the minimum attest procedures that shall be carried out for each refinery and importer. Agreed upon procedures may vary from the procedures stated in this section due to the nature of the refiner's or importer's business or records, provided that any refiner or importer desiring to modify procedures obtains prior approval from EPA.

(a) Read the refiner's or importer's reports filed with EPA for the previous year as required by §§ 80.75 and 80.105.

(b) Obtain a gasoline inventory reconciliation analysis for the current year from the refiner or importer which includes reformulated gasoline, RBOB, conventional gasoline, and non-finished-gasoline petroleum products.

(1) Test the mathematical accuracy of the calculations contained in the analysis.

(2) Agree the beginning and ending inventories to the refiner's or importer's perpetual inventory records.

(c) Obtain separate listings of all tenders during the current year of reformulated gasoline, RBOB, conventional gasoline, and non-finished-gasoline petroleum products.

(1) Test the mathematical accuracy of the calculations contained in the listings.

(2) Agree the listings of tenders' volumes to the gasoline inventory reconciliation in paragraph (b) of this section.

(3) Agree the listings of tenders' volumes, where applicable, to the EPA reports.

(d) Select a representative sample from the listing of reformulated gasoline tenders, and for this sample:

(1) Agree the volumes to the product transfer documents;

(2) Compare the product transfer documents designation for consistency with the time and place, and compliance model designations for the tender (VOC-controlled or non-VOC-controlled, VOC region for VOC-controlled, OPRG versus non-OPRG, summer or winter gasoline, and simple or complex model certified); and

(3) Trace back to the batch or batches in which the gasoline was produced or imported. Obtain the refiner's or importer's internal laboratory analyses for each batch and compare such analyses for consistency with the analyses results reported to EPA and to the time and place designations for the tender's product transfer documents.

(e) Select a representative sample from the listing of RBOB tenders, and for this sample:

(1) Agree the volumes to the original product transfer documents;

(2) Determine that the requisite contract was in place with the downstream blender designating the required blending procedures, or that the refiner or importer accounted for the RBOB using the assumptions in § 80.72(a)(9);

(3) Review the product transfer documents for the indication of the type and amount of oxygenate required to be added to the RBOB;

(4) Trace back to the batch or batches in which the RBOB was produced or imported. Obtain refiner's or importer's internal lab analysis for each batch and agree the consistency of the type and volume of oxygenate required to be added to the RBOB with that indicated in applicable tender's product transfer documents; and

(5) Agree the sampling and testing frequency of the refiner's or importer's downstream oxygenated blender quality assurance program with the sampling and testing rates as required in § 80.72.

(f) Select a representative sample of reformulated gasoline and RBOB batches produced by computerized in-line blending, and for this sample:

(1) Obtain the composite sample internal laboratory analyses results; and

(2) Agree the results of the internal laboratory analyses to the quarterly batch information submitted to the EPA.

(g) Select a representative sample from the listing of the tenders of conventional gasoline and conventional gasoline blendstock that becomes gasoline through the addition of oxygenate only, and for this sample:

(1) Agree the volumes to the product transfer documents;

(2) For a representative sample of tenders, trace back to the batch or batches in which the gasoline was produced or imported. Obtain the refiner's or importer's internal laboratory analyses for each batch and compare such analyses for consistency with the analyses results reported to EPA; and

(3) Where the refiner or importer has included oxygenate that is blended downstream of the refinery or import facility in its compliance calculations in accordance with § 80.101(d)(4)(ii), obtain a listing of each downstream oxygenate blending operation from which the refiner or importer is claiming oxygenate for use in compliance calculations, and for each such operation:

(i) Determine if the refiner or importer had a contract in place with the downstream blender during the period oxygenate was blended;

(ii) Determine if the refiner or importer has records reflecting that it conducted physical inspections of the downstream blending operation during the period oxygenate was blended;

(iii) Obtain a listing from the refiner or importer of the batches of conventional gasoline or conventional sub-octane blendstock, and the compliance calculations for which include oxygenate blended by the downstream oxygenate blender, and test the mathematical accuracy of the calculations contained in this listing;

(iv) Obtain a listing from the downstream oxygenate blender of the oxygenate blended with conventional gasoline or sub-octane blendstock that was produced or imported by the refiner or importer. Test the mathematical accuracy of the calculations in this listing. Agree the overall oxygenate blending listing obtained from the refiner or importer with the listing obtained from the downstream oxygenate blender. Select a representative sample of oxygenate blending listing obtained from the downstream oxygenate blender, and for this sample:

(A) Using product transfer documents, determine if the oxygenate was blended with conventional gasoline or conventional sub-octane blendstock that was produced by the refiner or imported by the importer; and

(B) Agree the oxygenate volume with the refiner's or importer's listing of oxygenate claimed for this gasoline;

(v) Obtain a listing of the sampling and testing conducted by the refiner or importer over the downstream oxygenate blending operation. Select a representative sample of the test results from this listing, and for this sample agree the tested oxygenate volume with the oxygenate use listings from the refiner or importer, and from the oxygenate blender; and

(vi) Obtain a copy of the records reflecting the refiner or importer audit over the downstream oxygenate blending operation. Review these records for indications that the audit included review of the overall volumes and type of oxygenate purchased and used by the oxygenate blender to be consistent with the oxygenate claimed by the refiner or importer and that this oxygenate was blended with the refiner's or importer's gasoline or blending stock.

(h) In the case of a refiner or importer that is not exempt from blendstock tracking under § 80.102(f):

(1) Obtain listings for those tenders of non-finished-gasoline classified by the refiner or importer as:

(i) Applicable blendstock which is included in the refiner's or importer's blendstock tracking calculations pursuant to § 80.102(b) through (d);

(ii) Applicable blendstock which is exempt pursuant to § 80.102(d)(3) from inclusion in the refiner's or importer's blendstock tracking calculations pursuant to § 80.102 (b) through (d); and

(iii) All other non-finished-gasoline petroleum products.

(2) Test the mathematical accuracy of the calculations contained in the analysis.

(3) Agree the listings of tenders' volumes to the gasoline inventory reconciliation in paragraph (b) of this section.

(4) Agree the EPA report for the volume classified as applicable blendstock pursuant to the requirements of § 80.102.

(5) Select a representative sample from the listing of applicable blendstock which is reported to EPA, and for such sample:

(i) Agree the volumes to records supporting the transfer of the tender to another person; and

(ii) Trace back to the batch or batches in which the non-finished-gasoline petroleum product was produced or imported. Obtain the refiner's or importer's internal laboratory analysis for each batch and compare such analysis for consistency with the product type assigned by the refiner or importer (e.g., reformate, light coker naphtha, etc.), and that this product type is included in the applicable blendstock list at § 80.102(a).

(6) Select a representative sample from the listing of applicable blendstock which is exempt from inclusion in the blendstock tracking report to EPA, and for such sample:

(i) Agree the volumes to records supporting the transfer of the tender to another person;

(ii) Trace back to the batch or batches in which the non-finished-gasoline petroleum product was produced or imported. Obtain the refiner's or importer's internal laboratory analysis for each batch and compare such analysis for consistency with the product type assigned by the refiner or importer (e.g., reformate, light coker naphtha, etc.), and that this product type is included in the applicable blendstock list at § 80.102(a); and

(iii) Obtain the documents that demonstrate the purpose for which the product was used, and agree that the documented purpose is one of those specified at § 80.102(d)(3).

(7) Select a representative sample from the listing of all other non-

DEPARTMENT OF AGRICULTURE

Forest Service

36 CFR Parts 261 and 262

RIN 0596–AA75

Prohibitions; Law Enforcement Support Activities

AGENCY: Forest Service, USDA.

ACTION: Proposed rule.

SUMMARY: This proposed rule would provide a comprehensive revision of the acts prohibited on the National Forest System enforced by personnel of the Forest Service. These proposed revisions respond to emerging law enforcement issues, the enactment of new laws, and the promulgation of new rules that have occurred since the subject rules were last revised. The intent of these rules is to adequately protect National Forest System resources, the public who uses the National Forest System, and the employees who administer it. Public comment is invited.

DATES: Comments must be received in writing by April 18, 1994.

ADDRESSES: Send written comments to F. Dale Robertson, Chief (5300), Forest Service, USDA, P.O. Box 96090, Washington, DC 20090–6090.

The public may inspect comments received on this proposed rule in the Office of the Director, Fiscal and Public Safety Staff, room 605, 1621 North Kent Street, Arlington, VA, during regular business hours (8 a.m. to 4:30 p.m.), Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Jack Gregory, Law Enforcement and Investigations Staff, (912) 267–2471 or Kathryn Toffenetti, Office of the General Counsel, Natural Resources Division, (202) 720–2651.

SUPPLEMENTARY INFORMATION:

Law Enforcement Activities on the National Forest System

Promulgation of Rules

In order to carry out the agency's statutory mission, it has long been necessary to promulgate rules setting forth those acts that are prohibited on the National Forest System. These rules are integral to Forest Service efforts to protect resources, facilities, employees, and the public. The primary authority for the Secretary to promulgate such rules is found at 16 U.S.C. 551. Violators of these rules can be punished by imprisonment for a term not to exceed six months and are subject to a range of fines as a result of the enactment of the Comprehensive Crime Control Act of 1984 (18 U.S.C. 3559, 3571).

Jurisdiction of National Forests

Both Federal and State laws apply to the national forests (16 U.S.C. 480), that is, both Federal and State criminal and civil jurisdiction apply to persons within the national forests. Generally, State enforce State laws, while Federal officers enforce Federal laws and regulations. In most cases, the Forest Service enforces laws and regulations relating to its resource protection responsibilities. Some prohibitions established in certain State laws may also be appropriate subjects of Federal regulation. There are several Forest Service prohibited acts that rely on the existence of a particular State law for definition, for example, 36 CFR 261.13(i) prohibits the operation of any vehicle off Forest Development, State or County roads "in violation of State law established for vehicles used off roads." Thus, in some instances, an act or omission by a national forest visitor may be regulated by both Federal and State governments.

Forest officers cooperate fully with State, local, and other Federal agencies in executing their responsibilities related to the National Forest System. With the enactment of the Cooperative Law Enforcement Act in 1971 (16 U.S.C. 551a), the Forest Service has entered into reimbursable agreements with some State and local agencies (usually a county sheriff's office) for the protection of persons and their property on the National Forest System where the existence of forest attractions and facilities account for an extraordinary amount of visitor use. These agreements provide an avenue to assist local jurisdictions that are impacted by these attractions. During the past several years, however, it has become evident that reimbursement through the Cooperative Law Enforcement program cannot alone provide the level of protection that should be afforded the public in Forest Service recreation areas. For example, when a forest visitor is victimized by theft of personal property or an assault and the local enforcement authority is unable to respond, there are often trained and equipped Forest Service law enforcement personnel in the immediate area at the time of the incident. These victims are often assisted by Forest officers who initiated what action they can, given the current scope of the prohibitions.

Need For Revision of Rules

Pursuant to Departmental Regulation 1512–1, the Forest Service has reviewed 36 CFR Part 261—Prohibitions and 36 CFR Part 262—Law Enforcement Support Activities to determine their current applicability in view of new and changing laws, conditions, and other factors affecting the management of the National Forest System, employees, and the general public. By letter of September 8, 1987, the Chief of the Forest Service asked each Regional and Washington Office staff unit to review the current rules and to make suggestions on any needed revisions. This Service-wide review has revealed a need to revise the rules in order to more effectively respond to recent changes in laws, regulations and policy, and emerging law enforcement issues.

Protection of Forest Users and Visitors

Without exception, Forest Service regions cited an inadequate regulatory basis for conducting law enforcement activities in certain areas when State and local authorities are unable to provide law enforcement services associated with violations of State or local law occurring on the National Forest System. This situation occurs as a result of a number of factors, one being the inability of small local law enforcement agencies to respond quickly to all but the most violent of crimes against users (murder, rape and other assaults). Many local law enforcement agencies find that their limited personnel, the distant location of Forest Service areas, and the seasonal nature of use these areas receive are impediments to rapid response to crimes committed on the National Forest System. When State and local law enforcement units cannot respond promptly, and trained and equipped Forest officers are at a location where persons need help or encounter criminal activity affecting those persons, the Forest Service should be in a position to render emergency assistance. Because Forest officers generally cannot enforce State laws, the agency needs rules which will make certain State crimes violations of Forest Service regulations. The authority provided by 16 U.S.C. 551 allows regulating occupancy and use even if such regulation is not necessary for the protection of forest resources (*United States* v. *Hymans*, 463 F.2d 615 (10th Cir. 1972)). To prohibit, for example, the theft of visitors' personal property is a reasonable regulation of the use of the forests and should help to keep visits to the national forests enjoyable.

Expanded Forest Service Law Enforcement Authority

There is a need to revise the regulations to reflect expanded

authority granted by statutes enacted since the rules were last revised, specifically, certain provisions of the Comprehensive Crime Control Act of 1984 (18 U.S.C. 3559, 3571), and the National Forest System Drug Control Act of 1986 as amended (16 U.S.C. 559b–g).

Technical Corrections

There is a need to make technical corrections in terminology and citations in several places in the rules, including revising the Authority citations for both parts.

Felony Case Prosecution Requests

There is a need to incorporate certain statutes contained in the Federal Criminal Code into agency rules to facilitate enforcing such statutes as misdemeanors rather than as felonies. This will help reduce agency felony case prosecution requests presented to the U.S. Department of Justice as well as provide for a speedier resolution of certain cases. Examples of these kinds of cases include intimidation and impersonation of Forest Service employees, use of controlled substances, unauthorized use of Forest Service computer systems, and thefts of certain government property or resources.

Section-by-Section Analysis of Proposed Rule

The proposed rule would amend two parts of Chapter II of Title 36 of the Code of Federal Regulations: Part 261—Prohibitions, and Part 262—Law Enforcement Support Activities. A section-by-section discussion of the changes proposed to each part follows.

Part 261—Prohibitions

Subpart A of this part sets forth acts and omissions that are prohibited throughout the National Forest System. Subpart B grants authority to Regional Foresters and Forest Supervisors to issue orders and regulations prohibiting certain acts in specific areas.

Subpart A—General Prohibitions

Section 261.1 Scope

This section establishes when the prohibitions of the subpart apply. The punctuation in paragraphs (a)(1) through (a)(4) would be revised to make clear that the conditions set forth in § 261.1(a) are in the alternative (i.e. that all conditions need not apply, just any one of them).

Paragraph (a)(3) currently provides that the rules of the subpart apply to an act or omission that affects, threatens, or endangers persons using the National Forest System or Forest development roads or trails or persons engaged in the protection, maintenance, or administration of such. As written, the rule protects Forest Service employees only when they are engaged in their duties and does not apply to situations where Forest Service employees are threatened or intimidated during "off-duty" hours as a result of an action taken while they were on duty. This situation can be remedied by revising paragraph (a)(3) to refer in paragraph (a)(3)(ii) to threats to or endangerment of persons engaged in or on account of the performance of official duties including the administration of the National Forest System.

Existing paragraph (a)(4) would be revised to clarify that these regulations apply within the boundaries of those components of the National Trails System or the National Wild and Scenic Rivers System that are administered by the Forest Service.

A new paragraph (a)(5) would be added to provide the agency a means of protecting personal property of forest users in the absence of a response by local law enforcement agencies. At present, if a forest user has personal property stolen or damaged (for example, an ice chest or sports equipment) the Forest Service must rely on State or local law enforcement personnel to investigate and charge the person responsible. However, in many cases, local law enforcement agencies do not have the resources to investigate these cases in a timely manner, and while the Forest Service has authority to investigate the case, it presently has no basis in its regulations for charging a person with misdemeanor theft. This is understandably a source of frustration to forest visitors victimized by theft, especially when trained and equipped Forest officers may be in the area where the theft or incident occurred and are able to identify the person(s) responsible. This addition to the rule would bridge this gap in law enforcement in those cases where local law enforcement agencies cannot respond in a timely manner

Paragraph (b) of existing § 261 1 exempts certain activities allowed for by statute that otherwise may be a violation of this part. The paragraph currently cites The Wilderness Act of 1964 and the Mining Law of 1872. The provisions of other laws which would also apply are not included. The paragraph would be revised to make clear the agency's intent to exempt from the prohibitions of this part any activity that is conducted in compliance with other regulations set forth in chapter II.

A new paragraph (c) would be added to make clear that the existence of these rules does not prevent the Federal Government from proceeding with necessary criminal action codified in Federal statutes rather than under these regulations. This revision is necessary to comport with the fact that the United States Department of Justice determines when the Federal Government should pursue criminal sanctions under Federal statute.

A new paragraph (d) would be added to clarify that unless intent is stated in specific provisions, strict liability applies to these regulations. The prohibited acts set forth in 36 CFR part 261 are offenses in the nature of neglect where the law requires care, or are offenses in the nature of inaction where the law imposes a duty (*Morisette* v. *United States*, 341 U.S. 262 (1952)). Such offenses "render[s] criminal a type of conduct that a reasonable person should know is subject to stringent public regulation and may seriously threaten the community's health or safety," (*Liparota* v. *United States*, 471 U.S. 419, 426 (1985)). Thus, for example, a prohibition of unauthorized livestock on national forest land without regard to whether a person intended to place such livestock there would tend to ensure that a person exercises diligence to prevent resource damage. A person should know that the use of Federal lands is subject to stringent regulation, and that action or inaction in violation of such regulations can cause irreparable harm to the public or the land and its resources.

No other revisions are proposed to this section.

Section 261.1a Special Use Authorizations, Contracts and Operating Plans

The term "operating plans" in the heading and text of this section would be changed to "plans of operations" in order that one standardized term can be used throughout this part to describe the various documents authorizing mineral related operations conducted pursuant to 36 CFR part 228 or 36 CFR part 292, subpart D. The last sentence of this paragraph would be removed as it duplicates information contained in other parts of 36 CFR and does not pertain to law enforcement on the National Forest System.

No other revisions are proposed to this section.

Section 261.1b Penalty

This section currently states the penalty for violating these rules in the words of 16 U.S.C. 551: "Any violation of the prohibitions of this part (261) shall be punished by a fine of not more than $500 or imprisonment for not more than six months or both * * *"

However, the enactment of the Comprehensive Crime Control Act of 1984, as amended, established categories of offenses based on the maximum amount of imprisonment for each offense (18 U.S.C. 3559). Offenses with a maximum term of six months of imprisonment, such as those offenses covered by these regulations, are now considered "Class B Misdemeanors" (the subject rules were formerly classified as petty offenses, 18 U.S.C. 3559(a)(7)). The statutory language of 18 U.S.C. 3571 prescribes a range of fines for Class B Misdemeanors depending on specific circumstances associated with the violation. The proposed revision to this section reflects this statutory change and provides for an exception by including the words "unless otherwise provided" which, for example, would apply to the enforcement of the collection of fees authorized by the Land and Water Conservation Act (36 CFR 261.15). A failure to pay such a fee is an infraction, which allows for a range of fines pursuant to 18 U.S.C. 3571 but does not allow for imprisonment of the offender.

No other revisions are proposed to this section.

Section 261.2 Definitions

Two existing definitions would be revised and twelve new definitions would be added to conform to various amendments that are proposed elsewhere in the subpart:

The term "Damaging" would be revised to add the words "rut" and "gouge" to better define damage to roadways and property.

The last sentence of the definition for the term "National Forest System" would be revised to conform to the definition established in the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1609(a)).

The term "Alcoholic beverage" would be added to clarify which beverages are intended to be covered in the prohibition against possession and use of alcoholic beverages at 36 CFR 261.58(bb). In the absence of a definition in this section, the Forest Service has relied on defining alcoholic beverage by reference to State law. The intention was to prohibit possession of all forms of alcoholic beverages when provided by an order; yet in some states, the definition of alcoholic beverages does not include beer and wine. This inconsistent treatment of "alcoholic beverage" in the present rule can be remedied by defining alcoholic beverages as "beer, wine, distilled spirits, and any other beverage defined as such by State law."

The term "Computer" would be added to clarify the type of machines covered under two new proposed rules in 36 CFR 261.9. The definition is the same as the definition at 18 U.S.C. 1030.

The term "Contraband" would be added to support a proposed revision at 36 CFR 261.4(c).

The term "Controlled substance" would be added so that possession of drugs may be handled through a United States Magistrate judge by the issuance of a violation notice, rather than by proceeding under the simple possession statute at 21 U.S.C. 844, which requires either the filing of a complaint or information, or indictment by a Federal grand jury. The definition is the same as that used at 36 CFR 1.4.

The terms "Endangered species," "Threatened species," and "Sensitive species" would be added to implement the rules at 36 CFR 261.9 (a) and (b). The current rule refers to these terms, but does not provide definitions. The proposed rule defines Endangered species and Threatened species as those species designated as such by the Secretary of the Interior or the Secretary of Commerce. The proposed definition for Sensitive species is the same as in the Forest Service Manual, section 2670.5.

The terms "Guiding" and "Outfitting" would be defined to indicate to the public and the courts the intended prohibited acts when engaging in such activities without a special use authorization. The definitions proposed parallel those found in the Forest Service Special Uses Handbook (FSH 2709.11).

A definition of the term "Intimidating" would be added to clarify the prohibited acts covered by this term.

The term "Plan of operations" would be added in order that one standardized term can be used throughout this part to describe the various documents authorizing mineral-related operations conducted pursuant to 36 CFR part 228 or 36 CFR part 292, subpart D.

The term "Scenic easement" would be added to support two proposed rule additions at 36 CFR 261.9(i) and 36 CFR 261.10(r) which provide for the enforcement of requirements or prohibitions associated with such easements.

Section 261.3 Interfering With a Forest Officer, Volunteer, or Human Resource Program Enrollee or Giving False Report to a Forest Officer

As currently written, this section prohibits interference with a Forest officer, interference with a volunteer or human resource employee, and the giving of a false report to a Forest officer. It is proposed to revise the section's heading to read "Interfering with agency functions" for clarity and brevity.

Existing paragraph (a) would be revised to combine the two "Forest officer" and "volunteer" interference rules currently found at paragraphs (a) and (c) into a single prohibition.

Existing paragraph (b) would be revised for clarity.

Two additions are proposed for this section. A new paragraph (c) is proposed to support on-site control of the public and maintain order during firefighting, law enforcement, or other operations.

A new paragraph (d) is proposed to prohibit the impersonation of Forest officers, volunteers, or human resource program enrollees. At present, the only option available to the agency is to prosecute an impersonation as a felony (18 U.S.C. 912). The proposed regulation would provide the opportunity, where appropriate, to treat these cases as misdemeanors, rather than to proceed under felony statutes.

No other revisions are proposed to this section.

Section 261.4 Disorderly Conduct

The proposed changes to § 261.4 result from situations encountered by Forest officers, usually in developed recreation areas, that require immediate attention such as breach of the peace or other illegal activity which, if not resolved, threatens the health, safety, rights, or enjoyment of forest users. Usually, Forest officers encounter these situations due to the unavailability of State or local authorities to patrol recreation areas. Often Forest officers are the only recognized authority with law enforcement responsibilities that the public may encounter. In other cases where State authorities do perform patrols, they may not be in a given location when law enforcement action must be taken, requiring Forest officers to initiate action until the State or local authority can arrive. The above scenarios are occurring routinely in some Forest Service recreation areas, and while the agency has the authority to regulate activity of this nature, it has no current regulations on which to support actions being taken by employees.

The section heading would be revised to read "Public behavior" to encompass the broader area of prohibited conduct included in the proposed rule.

Existing paragraph (a) would be revised to include the words "or any other violent behavior" in addition to prohibiting "fighting."

Existing paragraph (b) currently prohibits "offensive, derisive or annoying communication." The proposed revision of this paragraph is a narrower approach, identifying with more specficity the types of language or action that is prohibited and adding the element of intent to cause, or knowingly or recklessly creating the risk of, public alarm, nuisance, jeopardy or violence.

Existing paragraph (c), which prohibits making "statements or other actions directed toward inciting or producing imminent lawless action" would be removed, as this provision would be covered in revised paragraph (b).

A new paragraph (c) is proposed to prohibit the possession, selling, cultivation, dispensing, or bartering of controlled substances, alcoholic beverages, or contraband if such acts are a violation of State or Federal law. While the Forest Service has the authority to investigate controlled substance violations under the National Forest System Drug Control Act of 1986, as amended, and make arrests under that Act, it may not be practical to prosecute all as felony cases, such as the possession of small amounts of controlled substances intended for personal use. Therefore, the agency proposes to establish a rule which provides for a misdemeanor penalty. Alcoholic beverages have been included as the agency is currently without a rule prohibiting underage consumption or possession of alcoholic beverages in violation of State or Federal law on the National Forest System. Forest Service regions report continuing problems in both developed and undeveloped areas pertaining to large "keg" parties and other parties where underage alcoholic consumption is occurring. In many cases, State and local officers are unavailable to take the necessary enforcement actions in order to protect other forest users who are affected by this problem. The rule would also prohibit the possession of contraband (i.e. where the very possession of an item is illegal, as defined by either State or Federal law). Some examples of included items would be certain animal parts or unregistered automatic weapons.

A new paragraph (e) would be added prohibiting "being under the influence of any controlled substance or alcoholic beverage," if it is a violation of either State or Federal law. This would be a companion rule with the proposed new paragraph (c) and is needed for the same reasons.

Finally, new paragraphs (f) and (g) would be added to allow for federal prosecutions of persons who victimize forest visitors or other persons and their property on the National Forest System.

No other revisions are proposed to this section.

Section 261.5 Fire

One change is proposed to this section. As written, paragraph (b) prohibits the firing of tracer or incendiary ammunition. The wording of the paragraph requires that a Forest officer must prove that a person actually "fired" the ammunition, something that is very hard to do. Accordingly, this prohibition would be expanded to prohibit the possession of tracer or incendiary ammunition as well. The possession of tracer or incendiary ammunition on the National Forest System can be harmful to persons as well as resources and is clearly not within the public interest. If persons are prohibited from possessing such ammunition, there is less likelihood of it being fired.

Section 261.6 Timber and Other Forest Products

Existing paragraphs (a) and (h) would be revised to include the term "approved plan of operations" and "permit" as exceptions to the stated prohibited acts.

Paragraph (c) currently prohibits removing timber or other forest product except to a place designated for scaling. As some forest products are recorded by means other than scaling, a proposed revision to this paragraph would clarify that it is prohibited to remove such products except to a place designated for scaling or other means of recording by a forest officer.

Paragraph (d) currently prohibits the marking of trees or other forest products to be cut or removed in a manner similar to that employed by Forest officers. This paragraph would be revised to prohibit the counterfeit marking of trees to be left uncut on a timber sale. During the past 2 years, at least one Forest Service region has encounter numerous markings of "leave" trees on timber sales that were never marked by Forest Service personnel. Investigation or later communication to the agency by the person(s) claiming responsibility revealed that these markings were made to hamper Forest Service timber sales efforts by trying to confuse timber sale purchasers as to which trees could be cut and which trees were to be left. Where this has occurred, Forest officers have had to re-mark portions of timber sales incurring additional agency costs.

Paragraph (e), which prohibits the removal or hauling of timber or other forest products unless it is properly identified by the terms of a special use authorization or contract, would be revised for clarity by removing the word "hauling" and adding in its place the words "transporting" and "possessing." The revision is needed to better define the offense and to make clear that possession of forest products without the proper identification as required by a special use authorization or timber sale contract is prohibited.

A new paragraph (i) is proposed to prohibit "altering, adding, moving, or removing any stamp, brand, paint, timber sale boundary marker or tag, or other identification on any tree * * * previously marked or surveyed by a Forest officer * * *." This addition is needed due to the increasing number of cases where legitimate brands, paint, and timber sale boundary markers have been altered, moved, or removed. In pursuing such cases, the agency has discovered that the current rules do not adequately address this practice.

No other revisions are proposed to this section.

Section 261.7 Livestock

Paragraph (a) currently prohibits "placing or allowing unauthorized livestock to enter or to be in the National Forest System * * *." In a recent Ninth Circuit Court of Appeals case (*United States* v. *Semenza*, 835 F.3d 223 (9th Cir. 1987)), the court stated that the inclusion of the words "placing" and "allowing" required the government to prove that the livestock owner meant to violate this rule intentionally. This interpretation is not consistent with the agency's intent; therefore paragraph (a) would be revised by removing the words "placing" or "allowing" to make clear that unauthorized livestock are prohibited without regard to whether a person intended to place or allow such livestock on National Forest System lands.

No other revisions are proposed to this section.

Section 261.8 Fish and Wildlife

Paragraph (a) currently prohibits the "hunting, trapping, fishing, catching, molesting, killing, or having in possession any kind of wild animal, birds, or fish" to the extent that Federal or State laws are violated. Under the proposed rule, this paragraph would be expanded to include the words "transporting, buying, selling, bartering, or offering to buy" wild animals, birds, or fish to cover additional activities prohibited by State or Federal laws which Forest officers routinely encounter in the field. The revision would also add "shellfish" to the

existing rule, as there are several large shellfish beds on the National Forest System in Washington State, and these are not protected under the current rule.

No other revisions are proposed to this section.

Section 261.9 Property

The heading of this section would be revised to read "Property administered by the Forest Service" to clarify that the prohibitions apply to United States Government property rather than to the personal property of a forest visitor. In addition, the introduction to the section would be revised to state: "Except as provided by special use authorization, contract, approved plan of operations, or Federal law or regulation, the following are prohibited * * *." This revision is proposed so these authorizing documents only have to be stated once in the section, rather than in each paragraph.

Existing paragraph (a) would be revised and combined with existing paragraph (b) and expanded to prohibit "disturbing, damaging, excavating, diggings, removing, transporting, possessing, buying, selling, bartering, or offering to buy, sell, or barter any natural feature or other property of the United States." By incorporating this change into part 261, the agency will be able to cite persons for property violations as misdemeanors rather than as felonies under the United States Criminal Code (18 U.S.C. 641 and 1361) when appropriate.

Existing paragraph (c) would be revised and combined with existing paragraph (d) and redesignated as paragraph (b). The paragraph would also include a corollary addition of the words "disturbing, damaging, excavating, digging, removing, transporting, possessing, buying, selling, bartering, or offering to buy, sell, or barter any plant that is classified as a threatened, endangered, or sensitive species." This revision would replace the terms "rare" and "unique" with the term "sensitive" in order to reflect a change in agency terminology since adoption of the current rule (Forest Service Manual, section 2670.5). Plants that once were identified as "rare" or "unique" have been placed on "sensitive" plant lists established and maintained by each Regional Office of the Forest Service.

Existing paragraph (e) would be redesignated as paragraph (d) and revised by adding the words "without permission" to remove an ambiguity in the current rule. The proposed rule would make clear that employees and contractors may be permitted to occupy Forest Service buildings and offices after closing hours.

Existing paragraph (f) would be revised for clarity and redesignated as paragraph (e).

Existing paragraphs (g), (h), and (i) would be combined and revised for clarity and redesignated as new paragraph (c).

Four new provisions are proposed for this section. A new paragraph (f) would prohibit the possession, duplication, or use of Forest Service locks and keys without authorization. All Forest Service regions are experiencing significant problems with the unauthorized use of these items. The only remedy currently available is under the provisions of 18 U.S.C. 641, which requires the agency to prove that an actual theft of government property has occurred. These kinds of cases can best be handled as misdemeanors rather than as felonies; therefore, inclusion in part 261 of a prohibition on unauthorized possession, duplication, and use of Forest Service locks and keys is appropriate.

New paragraph (g) and (h) are proposed to parallel, as misdemeanors, a relatively new computer fraud law found at 18 U.S.C. 1030. The statute requires that unauthorized access must "affect the use of the government's operation * * * of a computer." The statute also did not provide for prosecution under a misdemeanor charge. The addition of paragraphs (g) and (h) in part 261 would allow the agency to initiate action where there has been unauthorized use regardless of the effect of the use on the government's operation of a computer, and would provide a means for prosecution of such use as a misdemeanor. The definition of "computer" proposed for inclusion in § 261.2 is the same as in 18 U.S.C. 1030

The addition of paragraph (i) would provide a prohibition against performing an action or failing to perform an action in violation of any restrictive covenants or deed reservations associated with scenic easements. There are many instances when there are blatant, but minor, violations of a scenic easement (e.g. installation of signs, use of unauthorized paint colors, etc.) which can be resolved more efficiently through the issuance of a citation rather than through the initiation of a lawsuit.

Finally, new paragraph (j) is proposed to make it clear that removal of minerals or mineral materials from the National Forest System is prohibited unless done in compliance with laws and regulations. To be in compliance, a person may need to obtain an approved plan of operations or operating plan in accordance with 36 CFR part 228, subparts A, C, or E, 36 CFR part 292, subpart D, or a permit or lease issued by the Department of the Interior in accordance with 43 CFR chapter II, subchapter C.

No other revisions are proposed to this section.

Section 261.10 Occupancy and Use

The prohibitions in this section relate to occupancy and use of the National Forest System by persons or entities other than the Forest Service. The introductory text immediately following the heading would be revised to include the same language as proposed for § 261.9 for the reasons outlined in that section.

Paragraph (b) would be revised for clarity to include "residing upon" the National Forest System as a prohibited act.

Paragraph (c) would be revised to add the words "leasing," "merchandise," "equipment," and "renting" to update the existing rule on activities prohibited without authorization.

Paragraph (d) would be revised to remove the prohibition against the discharge of a firearm across or on a Forest development road unless "any person or property is exposed to injury or damage * * *." The blanket prohibition against any discharge has created a significant problem in several Forest Service regions as a "Forest development road" includes closed roads, traffic service level "D" roads, and other similar roads that have little or no vehicular use. Because of the limited traffic, hunting along these roads is not considered to be a safety problem. The proposed revision would add a prohibition against the discharge of a firearm from a vehicle and then make clear that the current prohibition against discharging a firearm "in any manner or place whereby any person or property is exposed to injury or damage as a result of such discharge or use," applies to any location in the National Forest System.

Paragrph (k) would be revised to change the term "operating plan" or "plan of operations."

In addition to the preceding amendments, six new provisions are proposed for this section. A new paragraph (n) would prohibit the payment of any "product, permit, fee or service" by a check backed by insufficient funds. Several Assistant United States Attorneys have recommended this addition, as the only current remedy for such practices is to pursue them through State courts, which has not been efficient. There have been documented instances where the

same user of a group-fee area or campsite, knowing that the agency is unable to initiate an effective collection action, has written bad checks two and sometimes three years in a row.

A new paragraph (o) would prohibit anyone from charging or collecting fees from persons using the National Forest System, unless the charge or collection is permitted by Federal law, regulation, or special use authorization. In the past few years, there have been an increasing number of cases where private individuals were successful in obtaining "payments" from unsuspecting forest users for such things as rafting, using four-wheel-drive roads, and walking across areas under special use authorization, none of which required payment of a fee. This rule is needed to protect the public from unlawful fees by providing a means for prosecuting those engaging in such schemes.

A new paragraph (p) would be added to provide for the prosecution of a failure to display an authorizing document when it is required by the document to do so.

A new paragraph (q) would prohibit "outfitting or guiding" on the National Forest System without a special use authorization or in violation of Federal or State law. This proposal was probably the addition most widely requested by the Forest Service regions. Considerable problems have existed in the enforcement of the requirement that outfitting and guiding be conducted under special use authorization due to the lack of a definition for the two activities. The approach taken in the proposed rule is to define "outfitting and guiding" at 36 CFR 261.2 and then to prohibit these activities without a special use authorization at 36 CFR 261.10.

A new paragraph (r) would be added to prohibit the undertaking of any activity in violation of the requirements of a scenic easement. This is a companion rule to the proposed 36 CFR 261.9(i) and is being promulgated for the same reasons outlined in that paragraph.

No other revisions are proposed to this section.

Section 261.11 Sanitation

Existing paragraph (b) would be revised to establish a general prohibition against litering. The current text provides that a Forest officer may take action only against persons who leave "litter in an exposed or unsanitary condition." This has proven insufficient to protect the National Forest System from littering

No other revisions are proposed to this section.

Section 261.12 Forest Development Roads and Trails

Existing paragraph (a) would be revised to add the terms "contract" and "approved plan of operations" to the list of authorizing documents, correcting an unintentional omission.

A new paragraph (e) is proposed to establish a rule prohibiting the operation of a vehicle in violation of State laws, posted signs, or traffic devices. Although local authorities are relied on, when possible, to enforce traffic regulations, there are many times when it is not possible or practical to obtain their help, making Forest Service enforcement necessary. For example, reckless driving is a matter that needs immediate action when it is spotted by a trained and properly equipped Forest officer to ensure safe travel for other road users. Since State laws are applicable to Forest development roads, they could be enforced by Forest officers, when necessary, through adoption of this proposed prohibition.

The language proposed for new paragraph (f) currently appears at 36 CFR 261.54(f), which prohibits "operating a vehicle carelessly, recklessly, * * * or in a manner or at a speed that would endanger or be likely to endanger any person or property." The paragraph would be removed from subpart B, amended to clarify this is a strict liability offense, and made a part of subpart A.

A new paragraph (g) would require the use of seatbelts, if provided by the manufacturer, for occupants of vehicles traveling on Forest development roads. The prohibition would support State laws which require the same, while ensuring safety and consistency by relying on a single rule that would apply throughout the National Forest System. Seatbelt laws vary from State to State. For example, some states exempt the passengers of certain classes of vehicles from mandatory seatbelt usage, while others, exempt certain passengers. In many areas on the National Forest System, a Forest development road can cross State boundaries. In these situations, reliance on some State seatbelt statutes could lead to inconsistency and confusion. This provision will ensure the protection afforded by seatbelts throughout the National Forest System regardless of individual State laws.

No other revisions are proposed to this section.

Section 261.13 Use of Vehicles Off Roads

Several changes are proposed to this section.

Existing paragraph (a) would be revised to clarify the current "valid license" requirement by referring to a "valid operator's license or permit," if required by State law.

Existing paragraph (e) would be removed as the prohibition is included in the proposal for § 261.4(e).

Existing paragraph (f) would remain unchanged but redesignated as (e).

Existing paragraph (g) would be revised and redesignated as (f). The paragraph would contain the same language as proposed for 36 CFR 261.12(f). The revision, as proposed for this section, would provide a consistent approach in the treatment of careless and reckless driving throughout the National Forest System.

Existing paragraph (h) would be revised and redesignated as (g). The revision would better define the current prohibition of operating a vehicle that disturbs the land or other resources.

Existing paragraph (i) would remain unchanged but redesignated as (h).

One additional provision is proposed for this section. Many States have passed special registration requirements for off-road vehicles. In support of these requirements, a new paragraph (i) is proposed to prohibit the operation of a vehicle without displaying a license plate or the proper registration, if it is required by State law.

Section 261.14 Developed Recreation Sites

One change is proposed to this section.

A new paragraph (r) would be added to prohibit the informal reservation or "staking-out" of camping units by third parties. Unless campsites are specifically designated for advanced reservations, they are intended to be occupied on a first-come, first-served basis. The "staking out" of campsites has become a continuing problem as recreational use of National Forest System lands increases and is one that visitors often bring to the attention of Forest officers for resolution.

Section 261.15 Admission, Recreation Use and Special Recreation Permit Fees

This section would be revised to require forest visitors to comply with the "posted fee payment instructions" at developed sites and facilities. This proposed revision would close a legal gap in the current rule which prohibits "failing to pay " This change responds to several court decisions which have held that existing 36 CFR 261.15 requires payment, but does not require compliance with any other payment instructions posted at each site

Section 261.22 Buildings Used in Furtherance of the Administration of the National Forest System or Forest Service Programs

This section would be added to the subpart to protect Forest Service employees and facilities. The proposed addition paraphrases the current General Services Administration building regulations at 41 CFR subpart 101–20.3.

Subpart B—Prohibitions in Areas Designated by Order

This subpart grants authority to Regional Foresters and Forest Supervisors to issue orders and regulations prohibiting certain acts in specific areas. An explanation of the proposed revisions to this subpart follows by section.

Section 261.50 Orders

Consistent with other revisions proposed throughout Subpart A, paragraph (e)(1) would be revised to include the words "special use authorization," "contract," "approved plan of operations", and "Federal law or regulation" as the list of either authorizing documents used by the Forest Service or to make clear that the order may also exempt persons with authorization given by law or regulation.

Section 261.53 Special Closures

This section states, that when provided by an order, it is prohibited to go into or be in an area which is closed for the protection of certain animal populations or biological communities, management activities, or public health and safety.

Paragraph (a) currently states "threatened, endangered, rare, unique, or vanishing species of plants, animals, birds or fish." The proposed revision would remove all the categories which are currently listed and be revised to include simply "plants, animals, birds, fish or shellfish." This revision is needed as the current listed categories are too narrow to provide effective protection to certain species of animals during different times of year. For example, the agency may wish to close a sensitive elk calving area during a specific time of year, but are currently unable to do so because elk are not "threatened or endangered, etc." The proposed revision would remedy this situation.

Section 261.54 Forest Development Roads

Three changes are proposed to this section.

Paragraph (a) currently prohibits the use of any type of vehicle upon the issuance of an order. This rule would be revised by adding the words "or possessing" to the current text. In many cases, local county ordinances prohibit the possession of certain types of vehicles on lands either adjacent to or within a sensitive area, for example, the possession of tracked vehicles or modified off-road vehicles within a special wildlife or waterfowl habitat nesting area. The addition would allow a Regional Forester or Forest Supervisor to issue a specific order that prohibits the possession of a certain class of vehicle, if needed to be consistent with a Forest Land and Resource Management Plan or to support a local ordinance.

Paragraph (c) currently prohibits using a road for commercial hauling without a permit or written authorization upon the issuance of an order. The rule would be revised by adding the words "or other commercial activities" to the current text. Authorization for commercial use of Forest development roads should not be limited to hauling a product; other commercial use such as transporting heavy equipment should also be subject to this requirement.

Finally, paragraph (f), which prohibits careless or reckless driving, would be removed because, as previously noted, it is proposed to make this a general prohibition in § 261.12.

Section 261.58 Occupancy and Use

Paragraph (m) allows for the issuance of an order to prohibit the "discharge of a firearm, air rifle, or gas gun." Under the proposed rule, this paragraph would be revised to read "discharging or possessing a firearm, air rifle, gas gun, or other device capable of causing injury to persons or wildlife or capable of causing property damage." For example, the addition of the prohibition against "possessing" is necessary for wildlife protection at certain times of the year on different national forest units and for public safety in areas of higher visitor use or when property would be easily damaged by firearms and other devices shooting projectiles. The addition of "or other device" is necessary to support the inclusion of devices, such as starter pistols and crossbows, which can cause serious bodily harm or death if used. And finally, the addition of "capable of causing injury to persons or wildlife or capable of causing property damage" is necessary to specify more precisely the type of device to which the prohibition would apply.

Paragraph (bb) would be revised to adopt the new definition of "alcoholic beverage" proposed at 36 CFR 261.2.

A new paragraph (dd) would be added to prohibit the storage of personal property in any area outside of a national forest developed recreation site when prohibited by an order. Similar to the problem within developed recreation sites addressed by proposed § 261.14(r), is the "staking out" of popular sites by users several weeks in advance of when they are to be occupied for hunting or other activities. Often, other users desiring to camp in the same area are unable to do so because of this activity. This rule is proposed for Subpart B, because of the site-specific nature of the problem and the need for flexibility to prescribe different lengths of time for each area.

A new paragraph (ee) would be added to enable a Regional Forester or Forest Supervisor to issue an order prohibiting the possession, storage, or use of glass food or beverage containers. The rule is proposed in light of serious safety hazards presented by broken glass in heavily used beaches and swimming areas and the need to prevent injuries from cuts to persons recreating in these areas.

No other revisions are proposed to this section.

Part 262—Law Enforcement Support Activities

This part provides administrative rules pertaining to certain operational matters affecting Forest Service law enforcement programs and activities.

Section 262.1 Definitions

A new definition section would be added to provide for definitions of "Law Enforcement Officer" and "Special Agent." The definitions are needed in the regulation to support the section on purchase of evidence.

Existing § 262.1 would be redesignated as § 262.2.

Existing § 262.2, which governs the purchase of information in furtherance of investigations, would be revised and combined with § 262.3, which governs the purchase of evidence. This revision is proposed in response to requests of several Forest Service regions for a payment scale for purchase of information and evidence that reflects the gravity of the offenses investigated, such as violations of the National Forest System Drug Control Act of 1986, as amended. For example, amounts that Special Agents could be authorized to pay for information or evidence would be raised from $200 and $400 respectively, to $500 for a single transaction, with other increases or

changes proposed for the employees so listed. Existing paragraph (b) in both sections, which states that payments cannot be made for the investigation of petty offenses, would be removed. The agency's authority to make payments for evidence and information was affirmed in a decision of the Comptroller General dated April 29, 1971 (CG–B–172259) and allows for payment to further any criminal investigation, otwithstanding the classification of the offense.

Subpart B—Impoundments and Removals

The title of this subpart would be revised to read "Administrative Impoundments and Removals." This change would clarify that the rules provide for administrative remedies that may be taken by the Forest Service to impound and remove animals or personal property on the National Forest System. Criminal law enforcement procedures associated with impoundments and property seizures made pursuant to arrests and searches are not covered by the regulations and are contained in the Federal Rules of Criminal Procedure for the United States District Courts and the Forest Service Law Enforcement Handbook (FSH 5309.11).

No other revisions are proposed to this section.

Section 262.12 Impounding of Personal Property

Paragraph (d) would be revised to allow the Forest Service to use un-redeemed or abandoned personal property if it is needed for official use, rather than having to offer it for sale. The authority for this proposed change is found in the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 484(m)) and at 41 CFR part 101–48. In many cases, the conversion of un-redeemed personal property to Government property can provide a substantial cost savings to the agency.

Section 262.13 Removal of Obstructions

This section currently provides for the removal of vehicles or other objects which create either an "impediment or hazard to the safety, convenience, or comfort of other users of the National Forest System." The rule would be revised to include a vehicle or other object "which has been left in such a manner that it impairs or may result in the impairment of any area of the National Forest System or other areas under Forest Service control." The revision is needed in light of increasing problems associated with the abandonment of automobiles or other large objects left as junk in popular undeveloped recreation areas on the National Forest System.

No other revisions are proposed to this section.

Summary

In summary, the Forest Service proposes to amend its rules governing Prohibitions and Law Enforcement Support Activities in order to:

—Improve protection of public and their property, National Forest System lands, waters, and other resources, and agency employees;
—Update the rules to reflect expanded Forest Service law enforcement authority granted by statutory change;
—Make technical corrections and revisions due to the passage of new laws and the promulgation of new rules in other parts of this chapter; and
—Provide both the agency and United States Department of Justice increased flexibility in prosecution options for certain offenses.

Interested persons are invited to submit comments and recommendations regarding these proposed regulations. All comments received will be considered in promulgation of the final rule. Respondents should note that substantive comments are more helpful than form letters or responses from questionnaires.

Regulatory Impact

This proposed rule has been reviewed under USDA procedures and Executive Order 12866 on Regulatory Planning and Review. It has been determined that this is not a significant rule. This rule will not have an annual effect of $100 million or more on the economy nor adversely affect productivity, competition, jobs, the environment, public health or safety, nor State or local governments. This rule will not interfere with an action taken or planned by another agency nor raise new legal or policy issues. Finally, this action will not alter the budgetary impact of entitlements, grants, user fees, loan programs, or the rights and obligations of recipients of such programs. Accordingly, this proposed rule is not subject to OMB review under Executive Order 12866.

Moreover, this proposed rule has been considered in light of the Regulatory Flexibility Act (5 U.S.C. 601 et seq.), and has been determined that this action will not have a significant economic impact on a substantial number of small entities as defined by that Act.

Executive Order 12630 for the Evaluation of Risk and Avoidance of Unanticipated Takings directs all agencies to evaluate whether certain proposed agency actions present a risk of effecting a taking of private property. Section 2(a)(3) of the Order exempts law enforcement actions from the requirements of the Executive Order. Since this proposed action involves additions, and technical and administrative changes, to prohibitions of activities on or affecting National Forest System land and resources, visitors, and employees, section 2(a)(3) applies and further analysis under the Executive Order is unnecessary.

Regulatory Reform: Less Burdensome or More Efficient Alternatives

The Department of Agriculture is committed to carrying out its statutory and regulatory mandates in a manner that best serves the public interest. Therefore, where legal discretion permits, the Department actively seeks to promulgate regulations that promote economic growth, create jobs, are minimally burdensome, and are easy for the public to understand, use or comply with. In short, the Department is committed to issuing regulations that maximize net benefits to society and minimize costs imposed by those regulations. This principle is articulated in President Bush's January 28, 1992, memorandum to agency heads, and in Executive Orders 12291 and 12498. The Department applies this principle to the fullest extent possible, consistent with law.

The Department has developed and reviewed this regulatory proposal in accordance with these principles. Nonetheless, the Department believes that public input from all interested persons can be invaluable in ensuring that the final regulatory product is minimally burdensome and maximally efficient. Therefore, the Department specifically seeks comments and suggestions from the public regarding any less burdensome or more efficient alternative that would accomplish the purposes described in the proposal. Comments suggesting less burdensome or more efficient alternatives should be addressed to the agency as provided in this notice.

Controlling Paperwork Burdens on the Public

This proposed rule will not result in additional paperwork not already required by law or approved for use. Therefore, the review provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3507) and implementing

regulations at 5 CFR part 1320 do not apply.

Environmental Impact

This proposed rule would set forth the acts that are prohibited on the National Forest System. This rule, in and of itself, will not have environmental effects that need to be addressed in compliance with the National Environmental Policy Act procedures. Section 31.1b of Forest Service Handbook 1909.15 (57 FR 43180; September 18, 1992) excludes from documentation in an environmental assessment or impact statement "rules, regulations, or policies to establish Service-wide administration procedures, programs, processes, or instructions." The agency's preliminary assessment is that this rule falls within this category of actions and that no extraordinary circumstances exist which would require preparation of an environmental assessment or environmental impact statement. A final determination will be made upon adoption of the final rule.

List of Subjects in 36 CFR Parts 261 and 262

Crime, Law enforcement, and National forests.

Therefore, for the reasons set forth in the preamble, it is proposed to amend chapter II of title 36 of the Code of Federal Regulations as follows:

PART 261—PROHIBITIONS

1. The authority citation for part 261 is revised to read as follows:

Authority: 7 U.S.C. 1011(f), 16 U.S.C. 472, 551, 559b–h, 1131(b), 1133(b)–(d)(1), 1246(i), 1281(d), 4601–6a(e), 18 U.S.C. 3559, 3571, 43 U.S.C. 1740, 1761.

Subpart A—General Prohibitions

2–3. Revise § 261.1 to read as follows:

§ 261.1 Scope.

(a) The prohibitions in this part apply, except as otherwise provided, when:

(1) An act or omission occurs in the National Forest System or on a Forest development road or trail;

(2) An act or omission affects, threatens, or endangers property of the United States administered by the Forest Service;

(3) An act or omission affects, threatens, or endangers:

(i) A person occupying or using the National Forest System or a Forest development road or trail;

(ii) A person on account of or in the performance of official duties, including the administration of the National Forest System or a Forest development road or trail;

(4) An act of omission occurs within the designated boundaries of a Forest Service administered component of the National Trails System or the National Wild and Scenic Rivers System; or

(5) An act or omission affects, threatens, or endangers property of any person on any lands or waters within the National Forest System or a Forest development road or trail.

(b) Nothing in this part shall preclude activities that are authorized by laws relating to the National Forest System and that are conducted in compliance with regulations set forth in this Chapter.

(c) Nothing in these rules and regulations shall be construed to abrogate any other Federal laws or regulations or any applicable State and local laws and regulations.

(d) Unless an offense set out in this part contains a term (or terms) that includes intent in its meaning, intent is not an element of any offense under this part.

4. Revise § 261.1a to read as follows:

§ 261.1a Special use authorizations, contracts and plans of operations.

The Chief, each Regional Forester, each Forest Supervisor, and each District Ranger or equivalent officer may issue Special use authorizations, award contracts, or approve plans of operations authorizing the occupancy or use of a road, trail, area, lake, or other part of the National Forest System in accordance with authority which is delegated elsewhere in this chapter or in the Forest Service Manual. These Forest officers may allow in the authorizing document or approved plan of operations an act or omission that would otherwise be a violation of a subpart A or a subpart C regulation or a subpart B order.

5. Revise § 261.1b to read as follows:

§ 261.1b Penalty.

The punishment for violating any prohibition of this part shall be imprisonment of not more than six months or a fine in accordance with the applicable provisions of 18 U.S.C. 3571, or both, unless otherwise provided.

6. In § 261.2, the introductory text is republished; the definitions of "Damaging" and "National Forest System" are revised; the term "Operating plan" is removed; and the following definitions are added in appropriate alphabetical order to read as follows:

§ 261.2 Definitions.

The following definitions apply to this part:

* * * * *

Alcoholic beverage means beer, wine, distilled spirits, and any other beverage defined as such by State law.

* * * * *

Computer means an electronic, magnetic, optical, electrochemical, or other high speed data processing device performing logical, arithmetic, or storage functions, and includes any data storage facility or communications facility directly related to or operating in conjunction with such device, but such term does not include an automated typewriter or typesetter, a portable hand held calculator, or other similar device.

Contraband means any goods, merchandise, or other substance, the possession or transportation of which is prohibited by either Federal or State law.

Controlled substance means a drug or other substance or immediate precursor included in schedules I, II, III, IV, or V or part B of the Controlled Substance Act (21 U.S.C. 812) or a drug or substance added to these schedules pursuant to the terms of the Act, or as defined by State law.

Damaging means to injure, mutilate, deface, rut, gouge, cut, chop, girdle, dig, excavate, kill, or in any way harm or disturb.

Endangered species means any species of plant or animal which is designated as endangered by the Secretary of the Interior or Commerce pursuant to 50 CFR 17.11 and 17.12.

* * * * *

Guiding means providing, for pecuniary remuneration or other gain, services such as supervision, protection, education, training, transportation, subsistence, or interpretation to individuals or groups in their pursuit of a natural resource based outdoor activity.

* * * * *

Intimidating means to abuse or threaten verbally or physically.

* * * * *

National Forest System means all national forest lands and waters reserved or withdrawn from the public domain of the United States, national forest lands and waters acquired through purchase, exchange, donation, or other means, national grasslands and land utilization projects and waters administered under Title III of the Bankhead-Jones Farm Tenant Act (7 U.S.C. 1010–1012), and other lands, waters, or interests therein administered by the Forest Service or are designated for administration through the Forest Service as a part of the System.

* * * * *

Outfitting means providing, for pecuniary remuneration or other gain, any saddle or pack animal, vehicle or boat, tents or camp gear, or similar supplies or equipment, except through retail sale in the ordinary course of business.

* * * * *

Plan of operations means a plan of operations as provided in 36 CFR part 228, subpart A, an operating plan as provided in 36 CFR part 228, subpart C, or 36 CFR part 292, subpart D, or a surface use plan of operations as provided in 36 CFR part 228, subpart E.

Scenic easement means any interest in land owned by the United States which gives the Federal Government any right to control the occupancy and use of land (including air space above such land) in order to protect scenic and natural values or for any other purposes authorized by law including public access. Scenic easements shall include, but are not limited to, restrictive covenants, deed reservations, conservation easements, reserved interest deeds, and other partial interests in land by whatever name given.

Sensitive species means a plant or animal species identified by a Regional Forester for which population viability is a concern, as evidenced by a significant current or predicted downward trend in population numbers or density or a significant current or predicted downward trend in habitat capability that would reduce a species' existing distribution.

* * * * *

Threatened species means any plant or animal species which is designated as threatened by the Secretary of the Interior or Commerce at 50 CFR 17.11 and 17.12.

* * * * *

7. Revise § 261.3 to read as follows:

§ 261.3 Interfering with agency functions.

The following are prohibited:

(a) Resisting, intimidating, endangering, assaulting, injuring, or interfering with any Forest officer, volunteer, or human resource program enrollee on account of or in the performance of official duties including the administration of the National Forest System or a Forest development road or trail.

(b) Giving any false, fictitious, or fraudulent report or other information to any Forest officer knowing that such report or other information contains false, fictitious, or fraudulent statement or entry.

(c) Violating the lawful order of a Forest officer engaged in the performance of official duties to maintain order or control of public behavior during firefighting, law enforcement, or other operations.

(d) Impersonating or posing as a Forest officer, volunteer or human resource program enrollee.

8. Revise § 261.4 to read as follows:

§ 261.4 Public behavior.

The following are prohibited:

(a) Engaging in fighting or any other violent behavior.

(b) Using language, an utterance, or gesture, or engaging in a display or act that is:

(1) Obscene;

(2) Physically threatening or menacing; or

(3) Done in a manner that is likely to inflict injury or incite an immediate breach of the peace;

and with intent to cause public alarm, nuisance, jeopardy, or violence, or knowingly or recklessly creating a risk thereof.

(c) Possessing, selling, cultivating, dispensing, or bartering for any controlled substance, alcoholic beverage, or contraband in violation of State or Federal law.

(d) Causing public inconvenience, annoyance, or alarm by making unreasonably loud noise.

(e) Being under the influence of any controlled substance or alcoholic beverage in violation of State or Federal law.

(f) Damaging, removing, transporting, or possessing any thing of value belonging to any person without permission.

(g) Intimidating, endangering, assaulting, injuring, or interfering with any person.

9. In § 261.5, the introductory text is republished and paragraph (b) is revised to read as follows:

§ 261.5 Fire.

The following are prohibited:

(a) * * *

(b) Firing or possessing any tracer bullet or incendiary ammunition.

* * * * *

10. In § 261.6, the introductory text is republished; paragraphs (a), (c), (d), (e), and (h) are revised and a new paragraph (i) is added to read as follows:

§ 261.6 Timber and other forest products.

The following are prohibited:

(a) Cutting or otherwise damaging any tree, or other forest product, except as authorized by a special use authorization, timber sale contract, permit, approved plan of operations, or Federal law or regulation.

(b) * * *

(c) Failing, when required by the timber sale contract or permit, to bring timber or other forest products cut under a contract or permit to a place designated for scaling or other means of recording by a forest officer, or removing timber or other forest product from such designated place prior to scaling or other means of recording.

(d) Stamping, marking with paint, or otherwise identifying any tree or other forest product in a manner similar to that employed by Forest officers to mark or designate a tree or any other forest product for cutting, removing, or leaving uncut.

(e) Loading, removing, transporting, or possessing timber or any other forest products acquired under any permit or timber sale contract, unless such product is identified as required by the permit or contract.

* * * * *

(h) Removing any timber, tree, or other forest product, except as authorized by special use authorization, timber sale contract, permit, approved plan of operations, or Federal law or regulation.

(i) Altering, adding, moving, or removing any stamp, brand, paint, Forest Service timber sale boundary marker or tag, or other identification on any tree, or other forest product previously marked or surveyed by a Forest officer, except as authorized by a Forest officer, special use authorization, timber sale contract, permit, approved plan of operations, or Federal law or regulation.

11. In § 261.7, the introductory text is republished and paragraph (a) is revised to read as follows:

§ 261.7 Livestock.

The following are prohibited:

(a) Unauthorized livestock within the National Forest System or on other lands under Forest Service administrative control.

* * * * *

12. In § 261.8, the introductory text is republished and paragraph (a) is revised to read as follows:

§ 261.8 Fish and wildlife.

The following are prohibited to the extent that Federal or State law is violated:

(a) Hunting, trapping, fishing, catching, molesting, killing, possessing, transporting, buying, selling, bartering, or offering to buy, sell, or barter any kind of wild animal, bird, fish, shellfish, or parts thereof, or taking the eggs of any bird or fish.

* * * * *

13. Revise § 261.9 to read as follows:

§ 261.9 Property administered by the Forest Service.

Except as provided by special use authorization, contract, approved plan of operations, or Federal law or regulation, the following are prohibited:

(a) Disturbing, damaging, excavating, digging, removing, transporting, possessing, buying, selling, bartering, or offering to buy, sell, or barter, any natural feature or other property of the United States.

(b) Disturbing, damaging, removing, transporting, possessing, buying, selling, bartering, or offering to buy, sell, or barter, any plant that is classified as a threatened, endangered, or sensitive species.

(c) Disturbing, damaging, excavating, digging, removing, transporting, possessing, buying, selling, bartering, or offering to buy, sell, or barter, any fossil or other paleontological resource; or prehistoric, historic, or archaeological resource, structure, site, artifact, or property.

(d) Entering any building, structure, or enclosed area owned or controlled by the United States, without permission of a Forest officer, when such building, structure, or enclosed area is not open to the public.

(e) Using any pesticide except for personal use as an insect repellent or other minor uses.

(f) Possessing, duplicating, using, or allowing the use of any Forest Service lock or key without permission of a Forest officer.

(g) Accessing or using any computer system or computer network owned, leased, or controlled by the Forest Service without permission of a Forest officer.

(h) Using, damaging, destroying, altering, copying, or deleting information, data, or programs stored in any computer system or computer network owned, leased, or controlled by the Forest Service without permission of a Forest officer.

(i) Performing or allowing to be performed an action prohibited by a scenic easement owned by the United States, or failing to perform an action required by such an easement.

(j) Removing any mineral or mineral material.

14. Revise § 261.10 to read as follows:

§ 261.10 Occupancy and use.

Except as provided by special use authorization, contract, approved plan of operations, or federal law or regulation, the following are prohibited:

(a) Constructing, placing, or maintaining any kind of road, trail, structure, fence, enclosure, communication equipment, or other improvement on the National Forest System or facilities thereon.

(b) Taking possession of, occupying, residing upon, or otherwise using the National Forest System or facilities thereon for any purpose.

(c) Selling, leasing, renting, or offering for sale, lease, or rent any kind of merchandise, service, or equipment, or conducting any kind of work activity or service.

(d) Discharging a firearm or using any other implement capable of taking human life, causing injury, or damaging property:

(1) in or within 150 yards of a residence, building, campsite, developed recreation site or occupied area;

(2) from a vehicle; or

(3) in any manner or place whereby any person or property is exposed to injury or damage as a result of such discharge or use.

(e) Abandoning any personal property.

(f) Placing a vehicle or other object in such a manner that it is an impediment or hazard to the safety or convenience of any person.

(g) Disseminating, posting, placing, or erecting any paper, notice, advertising material, sign, handbill, petition, or similar written and/or graphic matter.

(h) Operating or using in or near a campsite, developed recreation site, or over an adjacent body of water, any device which produces noise, such as a radio, television, musical instrument, motor, or engine, in such a manner and at such time so as to unreasonably disturb any person.

(i) Operating or using a public address system, whether fixed, portable, or vehicle mounted, in or near a campsite or developed recreation site or over an adjacent body of water.

(j) Use or occupancy of the National Forest System or facilities thereon when authorization is required.

(k) Violating any term or condition of a special use authorization, contract, or approved plan of operations.

(l) Failing to stop a vehicle when directed to do so by a Forest officer.

(m) Failing to pay any special use fee or other charges as required.

(n) Paying for any product, special use authorization, fee, or service by check with insufficient funds.

(o) Charging, collecting, or attempting to charge or collect a fee or thing of value from any person lawfully using the National Forest System.

(p) Failing to display a special use authorization, license, tag or other document when such display is required.

(q) Outfitting on, or guiding on the National Forest System.

(r) Undertaking any activity in contravention of prohibitions or requirements of a scenic easement.

15. In § 261.11, the introductory text is republished and paragraph (b) is revised to read as follows:

§ 261.11 Sanitation.

The following are prohibited:

(a) * * *

(b) Depositing, leaving, or causing to be left, any refuse, debris, trash, or litter on the National Forest System or facilities thereon not designated for that purpose.

* * * * *

16. In § 261.12, the introductory text is republished, paragraph (a) is revised and new paragraphs (e) through (g) are added to read as follows:

§ 261.12 Forest development roads and trails.

The following are prohibited:

(a) Violating the load, weight, height, length, or width limitations prescribed by State law except by contract, special use authorization, approved plan of operations, written agreement or by order issued under § 261.54 of this part.

* * * * *

(e) Operating any vehicle in violation of State law, posted sign or traffic device.

(f) Operating a vehicle carelessly, recklessly, or in a manner or at a speed that would endanger or be likely to endanger any person or property.

(g) Operating or riding in any vehicle on a Forest development road without wearing seatbelts, if provided by the manufacturer.

17. Revise § 261.13 to read as follows:

§ 261.13 Use of vehicles off roads.

It is prohibited to operate any vehicle off Forest development, State or County roads:

(a) Without a valid operator's license or permit in possession if required by State law.

(b) Without an operable braking system.

(c) From one-half hour after sunset to one-half hour before sunrise unless equipped with working head and tail lights.

(d) In violation of any applicable noise emission standard established by any Federal or State agency.

(e) Creating excessive or unusual smoke.

(f) Carelessly, recklessly, or in a manner or at speed that would endanger or be likely to endanger any person or property.

(g) In a manner which damages the land or vegetative resources, or injures or unreasonably disturbs wildlife.

(h) In violation of State law established for vehicles used off roads.

(i) Without displaying a valid vehicle license or possessing a vehicle registration if required by State law.

18. In § 261.14, the introductory text is republished and a new paragraph (r) is added to read as follows:

§ 261.14 Developed recreation sites.

The following are prohibited:

* * * * *

(r) Reserving any portion of the site for another person or party without permission of a Forest officer.

19. Revise § 261.15 to read as follows:

§ 261.15 Admission, recreation use, and special recreation permit fees.

Failure to comply with posted fee payment instructions for any fee established for admission or entrance to, or use of, a site, facility, equipment, or service furnished by the United States is prohibited. A violation of this section is an infraction and no sentence of imprisonment is authorized.

20. Add a new § 261.22 to read as follows:

§ 261.22 Buildings used in furtherance of the administration of the National Forest System or Forest Service Programs.

The following are prohibited in buildings owned or leased by the Forest Service:

(a) Engaging in conduct which impedes or disrupts the performance of official duty or the safety of Government employees.

(b) Engaging in conduct which prevents the general public from obtaining the services provided by the Government or its agents or contractors on the property.

(c) Failing to submit packages, briefcases, or other containers for inspection, when required, prior to entrance.

(d) Carrying, possessing, depositing, or placing firearms, other dangerous or deadly weapons, explosives, or items intended to be used to fabricate an explosive or incendiary device, unless authorized by special use authorization, contract, approved plan of operations, or Federal law or regulation.

Subpart B—Prohibitions in Areas Designated by Order

21. In § 261.50, revise paragraph (e)(1) as follows:

§ 261.50 Orders.

* * * * *

(e) * * *

(1) Persons who have specific authorization for the otherwise prohibited act or omission by virtue of a special use authorization, contract, approved plan of operations, or Federal law or regulation.

* * * * *

22. In § 261.53, the introductory text is republished and paragraph (a) is revised to read as follows:

§ 261.53 Special closures.

When provided by an order, it is prohibited to go into or be upon any area which is closed for the protection of:

(a) plants, animals, birds, fish, or shellfish.

* * * * *

23. In § 261.54, the introductory text is republished, paragraph (f) is removed and paragraphs (a) and (c) are revised to read as follows:

§ 261.54 Forest development roads.

When provided by an order, the following are prohibited:

(a) Using or possessing any type of vehicle prohibited by the order.

(b) * * *

(c) Using a road for commercial hauling or other commercial activities without a special use authorization or written authorization.

(d) * * *

(e) * * *

24. Amend § 261.58 by revising paragraphs (m) and (bb) and by adding paragraphs (dd), and (ee) to read as follows:

§ 261.58 Occupancy and use.

When provided by an order, the following are prohibited:

* * * * *

(m) Discharging or possessing a firearm, air rifle, gas gun, or other device capable of causing injury to persons or wildlife or capable of causing property damage.

* * * * *

(bb) Possessing an alcoholic beverage.

(cc) * * *

(dd) Storing, placing, or leaving personal property unattended outside of developed recreation sites for more than the length of time specified by the order.

(ee) Possessing, storing, or using any glass food or beverage containers.

PART 262—LAW ENFORCEMENT SUPPORT ACTIVITIES

1. The authority citation for part 262 is revised to read as follows:

Authority: 7 U.S.C. 1011(f); 16 U.S.C. 472; 16 U.S.C. 551; 16 U.S.C. 559b–h; 40 U.S.C. 484(m); CG–B–172259.

§§ 262.2 and 262.3 [Removed]

§ 262.1 [Redesignated as § 262.2]

2. Remove §§ 262.2 and 262.3, redesignate § 262.1 as § 262.2, and add new §§ 262.1 and 262.3 to read as follows:

§ 262.1 Definitions.

The following definitions apply to this subpart:

Law Enforcement Officer means an employee of the Forest Service in other than the Criminal Investigating series, GS–1811, who is authorized by the Washington Office, Director for Law Enforcement and Investigations to conduct investigations, make arrests with or without a warrant or process, issue violation notices, execute and serve search and arrest warrants, carry firearms for law enforcement purposes, and perform other duties as directed in connection with the enforcement or administration of all laws, rules, and regulations in which the Department of Agriculture, Forest Service, is or may be a party of interest.

Special Agent means an employee of the Forest Service in the Criminal Investigating series, GS–1811, who is authorized by the Chief to perform all duties conferred upon such officer under all laws and regulations administered by the Forest Service including the authority to conduct investigations, to execute and serve search and arrest warrants, to serve orders, subpoenas, or other judicial processes as directed, to carry firearms, make arrests, issue violation notices, and perform other duties as directed in connection with the enforcement or administration of all laws, rules and regulations in which the Department of Agriculture, Forest Service, is or may be a party of interest.

§ 262.3 Purchase of information or evidence in furtherance of investigations.

(a) *Approval of payments.* The following Forest Service officials may make or approve payments for purchase of information or evidence to further law enforcement investigations in the amount shown for each transaction as follows:

(1) Law Enforcement Officers....up to $250.00
(2) Special Agents.....up to $500.00
(3) Regional Special Agents in Charge.....up to $1,000.00
(4) Director for Law Enforcement and Investigations.....up to $5,000.00
(5) Chief, for amounts exceeding.....$5,000.00

(b) [Reserved]

Subpart B—Administrative Impoundments and Removals

3. Revise the title of subpart B as set out above.

4. Amend § 262.12 by revising paragraph (d) to read as follows:

§ 262.12 Impounding of personal property.

* * * * *

(d) If the personal property is not redeemed on or before the date fixed for its disposition, it shall become property of the United States. Such property may be retained by the Forest Service for use in on-going management activities, sold at public sale to the highest bidder, or otherwise disposed of. When personal property is sold pursuant to this regulation, the Forest officer making the sale shall furnish the purchaser with a bill of sale or other written instrument evidencing the sale.

5. Revise § 262.13 to read as follows:

§ 262.13 Removal of obstructions.

A Forest officer may remove or cause to be removed, to a more suitable place, a vehicle or other object which is an impediment or hazard to the safety, convenience, or comfort of any person, or which has been left in such a manner that it impairs or may result in the impairment of any areas of the National Forest System or other lands under Forest Service control.

Dated: January 6, 1994.

David G. Unger,

Associate Chief.

[FR Doc. 94–3358 Filed 2–15–94; 8:45 am]

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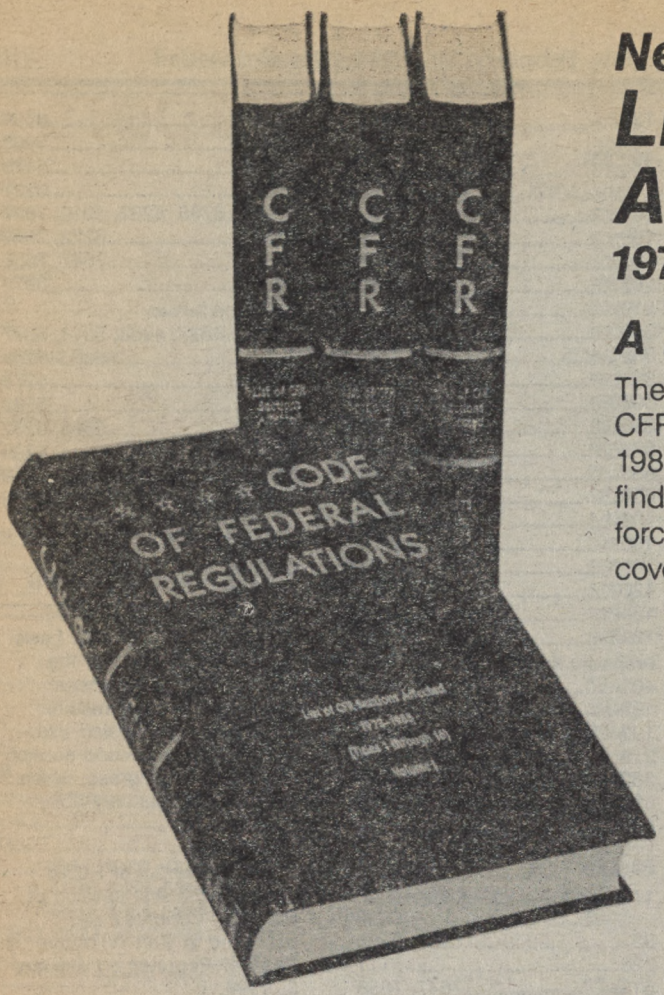

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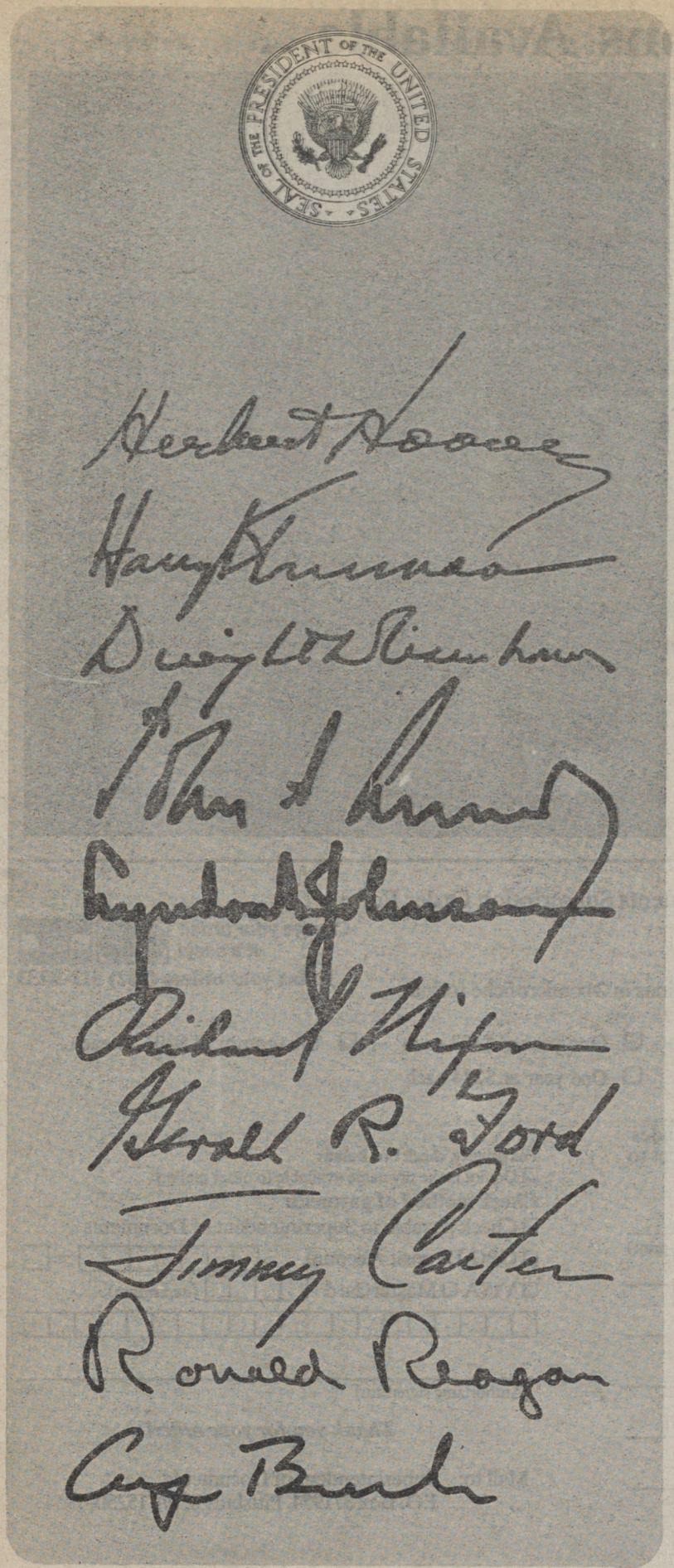

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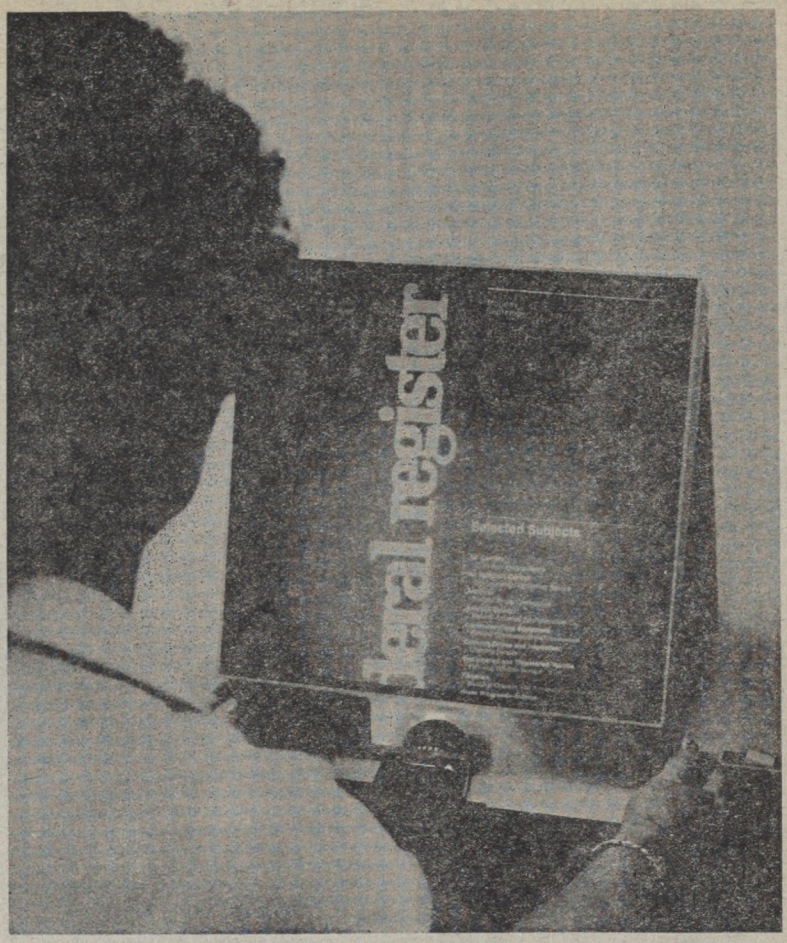

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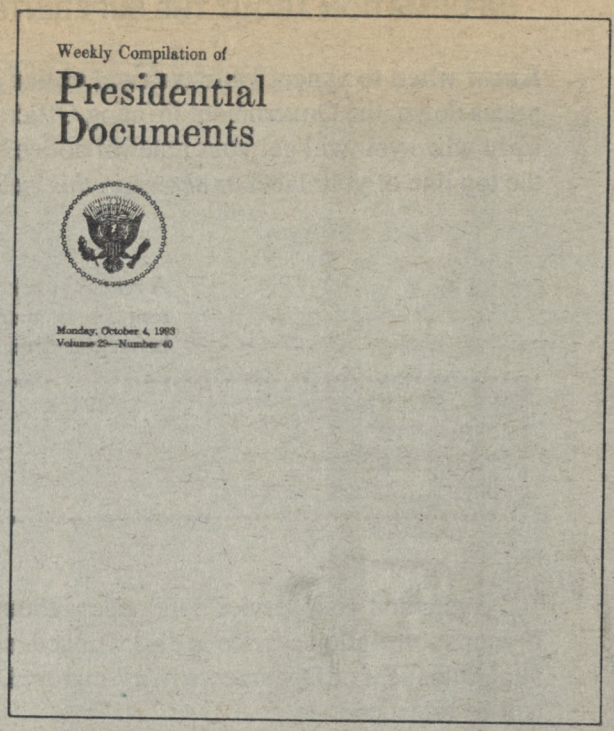

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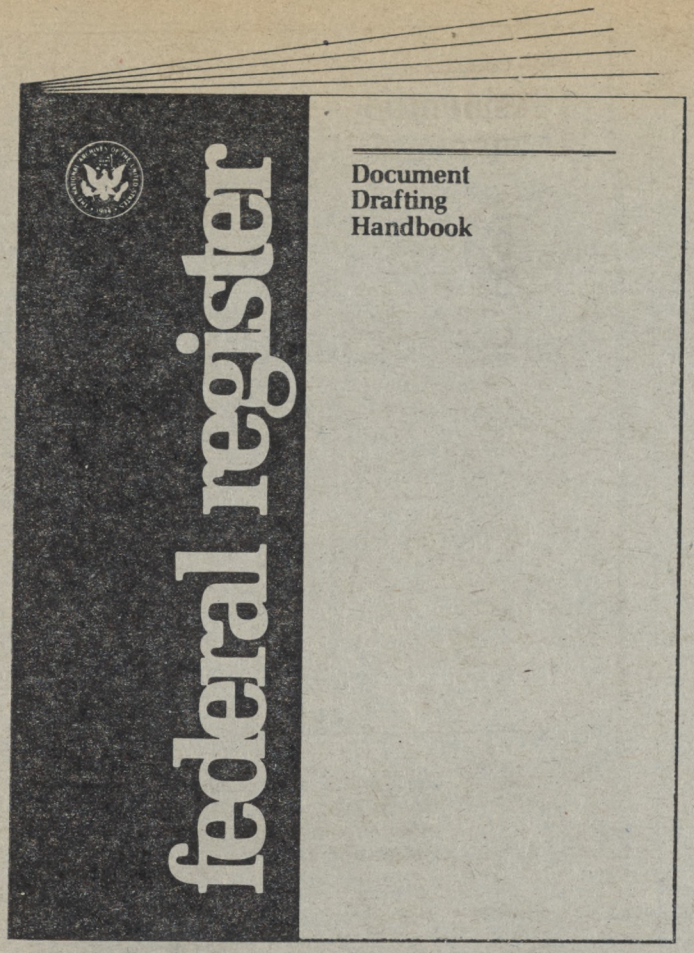

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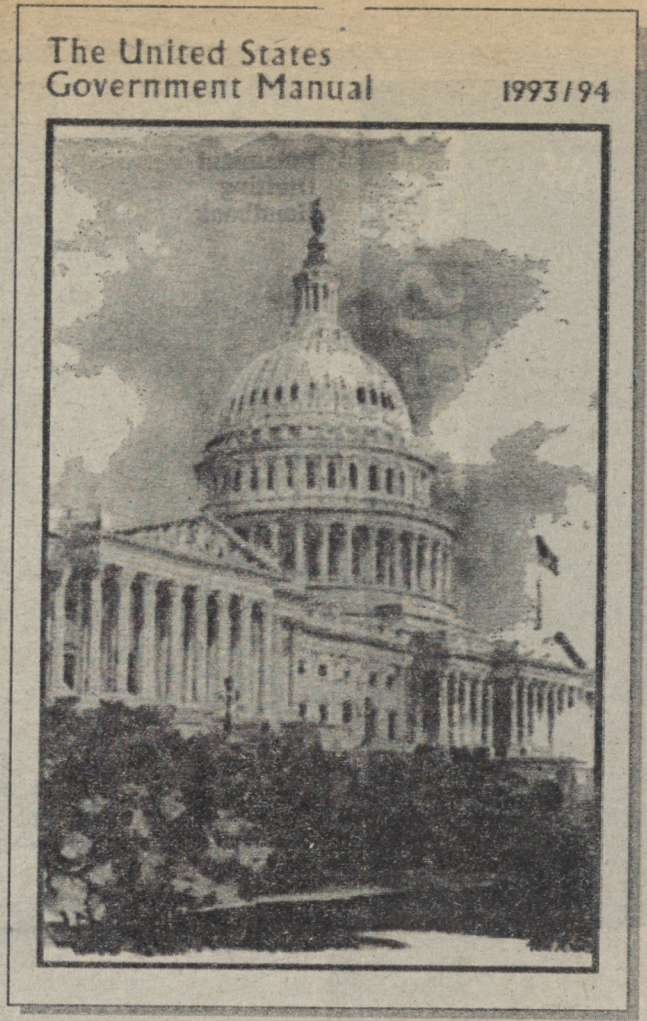

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