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Presidential Documents

Title 3—

The President

Memorandum of July 31, 1986

Determination Under Section 301 of the Trade Act of 1974

Memorandum for the United States Trade Representative

Pursuant to Section 301(d)(2) of the Trade Act of 1974, as amended (19 U.S.C. 2411(d)(2)), I have determined that the Agreement between the Governments of Japan and the United States of America Regarding Trade in Semiconductors, to be implemented by an exchange of letters, is an appropriate and feasible response to the practices of the Government of Japan with respect to trade in semiconductors. These practices have been investigated by the United States Trade Representative in response to a petition filed under Section 301 on June 14, 1985, by the Semiconductor Industry Association.

The Agreement, which will be in effect until March 31, 1991, will open up the Japanese market to U.S. exports of semiconductors and will help prevent dumping of semiconductors in the United States and third country markets. It achieves a key objective of Section 301, which is to open foreign markets to U.S. exports. The satisfactory resolution of this problem demonstrates our ability to help U.S. industries and to resolve contentious trade disputes through the negotiating process.

Fulfillment of the objectives and commitments in the Agreement is of critical importance. Therefore, I hereby determine that any future failure by the Government of Japan to meet the commitments and objectives of the Agreement would be inconsistent with a trade agreement or an unjustifiable act that would burden or restrict U.S. commerce. Therefore, I instruct the United States Trade Representative to report to me on: (1) the results of each of the periodic consultations held pursuant to the Agreement; and (2) annual improvements in foreign-based semiconductor firms' access to the Japanese market. I also direct the United States Trade Representative and the Secretary of Commerce to take any further action that may become appropriate to implement the Agreement. Finally, the Section 301 proceeding on semiconductors shall be suspended and shall remain suspended as long as the objectives and commitments of the Agreement are fulfilled.

This determination shall be published in the **Federal Register.**

Ronald Reagan

THE WHITE HOUSE,
Washington, July 31, 1986.

[FR Doc. 86-17632
Filed 8-1-86; 10:37 am]
Billing code 3195-01-M

Rules and Regulations

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

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 51

United States Standards for Grades of Pistachio Nuts in the Shell

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Final rule.

SUMMARY: This rule establishes voluntary United States Standards for Grades of Pistachio Nuts in the Shell. Industry requested establishment of these grade standards in order to provide a common trading language for this product. The Agricultural Marketing Service (AMS), in cooperation with industry, has the responsibility to develop and improve standards of quality, condition, quantity, grade, and packaging in order to encourage uniformity and consistency in commercial practices.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Michael V. Morrelli, Fresh Products Branch, Fruit and Vegetable Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, DC 20250, (202) 447-2011.

SUPPLEMENTARY INFORMATION: This rule has been reviewed under USDA Procedures and Executive Order 12291 and has been designated as "nonmajor." It would not result in an annual effect on the economy of $100 million or more. There would be no major increase in cost or prices for consumers; individual industries; Federal, State, or local government agencies; or geographic regions. It would not result in significant effects on competition, employment, investments, productivity, innovations, or the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The Administrtor of AMS has determined that this action will not have a significant economic impact on a substantial number of small entities, as defined by the Regulatory Flexibility Act, Pub. L. 96-354 (5 U.S.C. 601), because it establishes U.S. Standards for Grades of Pistachio Nuts in the Shell which have been requested by the U.S. pistachio nut industry and are in-line with current industry practices. Compliance with these standards will not impose substantial direct economic costs, recordkeeping, or personnel workload changes on small entities, and will not alter the market share or competitive position of such entities; vis-a-vis large businesses. In addition, the standards are voluntary; so a pistachio nut grower, handler, shipper, or receiver need not have their product certified under these standards; thereby incurring no costs at all.

A proposal to establish United States Standards for Grades of Pistachio Nuts in the Shell (7 CFR 51.2540-51.2546) was published in the **Federal Register** on April 11, 1986 (51 FR 12522-12524). Copies were distributed to various individuals, growers, handlers, receivers, grocery store chains, Federal and State government officials, and industry associations or organizations for review and comment.

A total of twelve comments were received and included comments from the Association of Food Industries, Inc., whose membership includes virtually all the importers and import agents of pistachios, and the California Pistachio Association, whose membership includes growers, handlers, and interested persons nationally and internationally.

Six commentors expressed general support of the rule as proposed. One commentor indicated that the rule should have established acceptable aflatoxin levels and the remaining five commentors felt that the proposed rule did not take into consideration the various varieties of pistachio nuts produced worldwide, the specific characteristics of each variety, and the diversity of cultural and marketing practices. They made a number of comments concerning grade names, size, definitions of defects, and tolerances. The following paragraphs discuss the establishment of aflatoxin levels and the concerns of the remaining five commentors.

The procedures for sampling and aflatoxin testing of domestic and imported in-shell and shelled pistachio nuts have been established by a memorandum of understanding between AMS and the Food and Drug Administration and are outlined in a notice printed in the June 13, 1986, **Federal Register** (51 FR 21626-21628). Therefore, there is no need to establish such levels in voluntary U.S. grade standards.

Five commentors indicated that imported nuts would only meet the proposed U.S. No. 2 grade and felt that this was a negative connotation. They requested that the grade names be U.S. Fancy, U.S. No. 1 Extra, and U.S. No. 1. USDA denied a similar request to change the grade names when the standards were in the early stages of development. This request is also denied because USDA's Uniform Grade Nomenclature Policy, established in 1976, states the grade names for new U.S. standards for grades of fresh fruits, vegetables, nuts, and other special products shall be U.S. Fancy, U.S. No. 1, U.S. No. 2, and U.S. No. 3 (7 CFR 51.100). Each of the grades for pistachios have the same requirements and definitions with the separation of grade levels being established by tolerances only.

Another area of concern was the lack of a definition and tolerances for dark or brown centers of the kernels, possibly caused by improper drying and which are said to be accompanied by an inferior taste. Dark centers would be objectionable under these grade standards when they become dark enough to materially detract from the appearance or the edible or marketing quality of the kernel or the lot and the tolerances for damage by internal defects (Table II) would be applied.

Five commentors request USDA to revise the definition of non-split shells (§ 51.2545(b)(1)(i)) to allow shell halves to be squeezed so that the gauge could freely slip into the opening. This request is not considered practical because it would be possible for shell halves separated on only a small portion of the suture to be considered split if enough pressure were applied. However, the word "freely" has been removed from the definitions of non-split shells and not-split on suture so that shipments containing obviously split nuts with closely aligned but otherwise distinctly

separated shell halves would not be unduly penalized or rejected.

Related to this comment, USDA was also requested to increase the tolerance for non-split shells and shells not-split on suture in the U.S. No. 1 and U.S. No. 2 grades. An increase in the tolerance would reduce the number of open shells in the lot and tolerances for unopened shells in European in-shell pistachio nut standards are more restrictive than the proposed tolerances for the U.S. No. 2 grade. Therefore, these tolerances remain as proposed.

Four commentors pointed out that nuts in the Small size category (§ 51.2544) should not be subject to a larger vs. smallest size ratio of 1.70 because this is an open ended category.

USDA does not agree because disregarding this requirement in the small size or any other size category would be inconsistent with good packing practices. A lot could consist of a wide range of nut sizes, but could meet count requirements for any size if the amount of large and small nuts were in the right proportions. It is desirable that nuts packed to meet a specific size should be fairly uniformly sized within the lot, otherwise size categories would be of little value.

These size designations are not a requirement of the grades and size may also be designated in terms of a count range per ounce. The 1.70 large vs. small requirement is only applicable when a size designation in Table IV or a count range per ounce is specified.

Five commentors indicated that the tolerances for shell pieces and blanks and for foreign material would be too restrictive, especially in the No. 2 grade.

In other U.S. grade standards for nuts and in some European grade standards, these tolerances are less restrictive in the lower grades. With this in mind, USDA is allowing tolerances of 2 percent for shell pieces and blanks and .50 percent for foreign material in the U.S. No. 2 grade.

Three commentors requested that the tolerance for loose kernels should not be the same in all grades, but should gradually decrease for U.S. No. 2 to U.S. Fancy. A four percent tolerance in all grades is not considered objectionable.

Three commentors requested that the definitions of light and dark stained shells be referenced to color charts that would be subject to review and comment by the industry. In addition, they pointed out that imported nuts are not as bright and attractive as California grown nuts and that separate color charts should be developed for each.

At the present time, USDA is developing visual aid color guides that would provide an objective guide for determining whether or not a shell would be considered stained and will give the industry the opportunity to periodically review this guide.

In addition to the changes discussed above, § 51.2540, paragraph b, is changed to clarify that dissimilar forms, such as natural versus dyed, or raw versus salted, cannot be commingled, and the tolerance chart and definition of foreign material are reworded to clarify that the presence of any amount of foreign material in the form of glass, metal, or live insects (zero tolerance) would prohibit the lot from meeting any U.S. grade.

It is found that it is contrary to industry interests to postpone the effective date until 30 days after publication in the **Federal Register** (5 U.S.C. 553), and good cause exists for making these U.S. grade standards effective upon publication in that: (1) The domestic pistachio nut harvest begins on or about September 1; (2) the domestic industry has requested that these standards be effective prior to the 1986 harvest; and (3) the use of the standards is voluntary and making them effective upon publication would cause no extra labor or expense for industry or consumers.

These changes have been incorporated into this final rule and the following establishes voluntary United States Standards for Grades of Pistachio Nuts in the Shell.

List of Subjects in 7 CFR Part 51

Fresh fruits, Vegetables and other products (inspection, certification, and standards).

PART 51—[AMENDED]

Accordingly, 7 CFR Chapter I is amended as follows:

1. The authority citation for 7 CFR Part 51 continues to read as follows:

Authority: Secs. 203, 205, 60 Stat. 1087, as amended, 1090 as amended, [7 U.S.C. 1622, 1624].

2. A new subpart consisting of § 51.2540 through 51.2546 is added to read as follows:

Subpart—United States Standards for Grades of Pistachio Nuts in the Shell

Sec.

51.2540 General.
51.2541 Grades.
51.2542 Tolerances.
51.2543 Application of tolerances.
51.2544 Size.
51.2545 Definitions.
51.2546 Average moisture content determination.

Subpart—United States Standards for Grades of Pistachio Nuts in the Shell

§ 51.2540 General.

(a) Compliance with the provisions of these standards shall not excuse failure to comply with provisions of applicable Federal or State laws.

(b) These standards are applicable to pistachio nuts in the shell which may be in a natural, dyed, raw, roasted, or salted state; or in any combination thereof. However, nuts of obviously dissimilar forms shall not be commingled.

§ 51.2541 Grades.

"U.S. Fancy," "U.S. No. 1", and "U.S. No. 2" consist of pistachio nuts in the shell which meet the following requirements.

(a) Basic requirements:

(1) Free from:

(i) Foreign material;

(ii) Loose kernels;

(iii) Shell pieces;

(iv) Particles and dust; and,

(v) Blanks.

(b) Shells:

(1) Free from:

(i) Non-split shells; and

(ii) Shells not split on suture.

(2) Free from damage by:

(i) Adhering hull material;

(ii) Light stained;

(iii) Dark stained; and

(iv) Other External (shell) defects.

(c) Kernels:

(1) Well dried, or, very well dried when specified in connection with the grade.

(2) Free from damage by:

(i) Minor mold;

(ii) Immature kernels;

(iii) Kernel spots; and,

(iv) Other Interal (kernel) defects.

(3) Free from serious damage by:

(i) Minor insect or vertebrate injury;

(ii) Insect damage;

(iii) Mold;

(iv) Rancidity;

(v) Decay; and,

(vi) Other Internal (kernel) defects.

(d) The nuts are of a size not less than $^{26}/_{64}$ inch in diameter as measured by a round hold screen.

(e) For tolerances see section 51.2542.

§ 51.2542 Tolerances.

(a) In order to allow for variations incident to proper grading and handling, the tolerances in Tables I, II, III and paragraph (b) of this section are provided.

TABLE I

Factor	U.S. Fancy	U.S. No. 1	U.S. No. 2
External (shell) defects (tolerances by weight)	Percent	Percent	Percent
(a) Non-split and not split on suture	2	3	6
(1) Non-split, included in (a)	1	2	4
(b) Adhering hull material	1	1	2
(c) Light stained	7	12	20
(1) Dark stained, included in (c)	2	3	4
(d) Damage by other means	1	1	1
(e) Less than 25/64 inch in diameter:			
(1) Small size	5	5	5
(2) Medium, Large, Extra Large sizes	1	1	1

TABLE II

Factor	U.S. Fancy	U.S. No. 1	U.S. No. 2
Internal (kernel) defects (tolerances by weight)	Percent	Percent	Percent
(a) Damage	3	6	8
(b) Serious Damage	3	4	5
(1) Insect damage, included in (b)	1	2	3
Total internal defects shall not exceed	5	9	10

TABLE III

Factor	U.S. Fancy	U.S. No. 1	U.S. No. 2
Other defects (tolerances by weight)	Percent	Percent	Percent
(a) Shell pieces and blanks	1	1	2
(b) Foreign material (No glass, metal or live insects shall be permitted)	.25	.25	.50
(c) Particles and dust	.25	.25	.25

(b) No lot shall contain more than 4 percent loose kernels, by weight.

§ 51.2543 Application of Tolerances.

The tolerances for the grades apply to the entire lot and shall be based on a composite sample drawn from containers throughout the lot. Any container or group of containers which have nuts obviously different in quality or size from those in the majority of containers shall be considered a separate lot and shall be sampled separately.

§ 51.2544 Size.

Nuts may be considered as meeting a size designation specified in Table IV or a range in number of nuts per ounce, provided, the weight of 10 percent, by count, of the largest nuts in a sample does not exceed 1.70 times the weight of 10 percent, by count, of the smallest and the average number of nuts per ounce is not more than one-half nut above or below the extremes of the range specified.

Table IV

Size designation	Average number of nuts per ounce [1]
Extra Large	20 or less.
Large	21 to 25.
Medium	26 to 30.
Small	31 or more.

[1] Before roasting.

§ 51.2545 Definitions.

(a) "Well dried" means the kernel is firm and crisp.

(b) "Very well dried" means the kernel is firm and crisp and the average moisture content of the lot does not exceed 7.00 percent or is specified. (See § 51.2546).

(c) "Loose kernels" means edible kernels or kernel portions which are out of the shell and which cannot be considered particles and dust.

(d) "External (shell) defects" means any blemish affecting the hard covering around the kernal. Such defects include, but are not limited to, non-split shells, shells not split on suture, adhering hull material, light stained, or dark stained.

(1) "Damage" by external (shell) defects means any specific defect described in paparagaph (d)(1) (i) through (v) of this section, or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual shell or of the lot (For tolerances see § 51.2542, Table I).

(i) "Non split shells" when shells are not opened or are partially opened and will not allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening.

(ii) "Not-split on suture" when shells are split other than on the suture and will allow an 18/1000 (.018) inch thick by ¼ (.25) inch wide gauge to slip into the opening.

(iii) "Adhering hull material" when an aggregate amount covers more than one-sixteenth of the total shell surface, or when readily noticeable on dyed shells.

(iv) "Light stained" on raw or roasted nuts, when an aggregate amount of yellow to light brown or light gray discoloration is noticeably contrasting with the predominate color of the shell and affects more than one-fourth of the total shell surface or, on dyed nuts, when readily noticeable.

(v) "Dark stained" on raw or roasted nuts, when an aggregate amount of dark brown, dark gray or black discoloration affects more than one-eighth of the total shell surface, or, on dyed nuts, when readily noticeable.

(e) "Internal (kernel) defects" means any blemish affecting the kernel. Such defects include, but are not limited to evidence of insects, immature kernels, rancid kernels, mold, or decay.

(1) "Damage" by internal (kernel) defects means any specific defect described in paragraphs (e)(1) (i) through (iii) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance or the edible or marketing quality of the individual kernel or of the lot (For tolerances see § 51.2542, Table II).

(i) "Minor white or gray mold" when not readily noticeable on the kernel and which can be easily rubbed off with the fingers.

(ii) "Immature kernels" when they are excessively thin or when a kernel fills less than three-fourths, but not less than one-half the shell cavity.

(iii) "Kernel spots" when dark brown or dark gray and aggregating more than one-eighth of the surface of the kernal.

(2) "Serious damage" by internal (kernel) defects means any specific defect described in paragraphs (e)(2) (i) through (v) of this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance or the edible or the marketing quality of the individual kernel or of the lot. (For tolerances see § 51.2542, Table II).

(i) "Minor insect or vertebrate injury" when the kernel shows conspicuous evidence of feeding.

(ii) "Insect damage" when an insect, insect fragment, web or frass is attached to the kernel. No live insects shall be permitted.

(iii) "Mold" when any type is readily visible on the shell or kernel.

(iv) "Rancidity" means the kernel is distinctly rancid to taste. Staleness of flavor shall not be classed as rancidity.

(v) "Decay" when any portion of the kernel is decomposed.

(f) "Other defects" means defects which cannot be considered internal defects or external defects. Such defects include, but are not limited to shell pieces, blanks, foreign material or particles and dust. The following shall be considered other defects. (For tolerances see § 51.2542, Table III).

(1) "Shell pieces" means half shells or pieces of shell which are loose in the sample.

(2) "Blank" means a split or a non-split shell not containing a kernel or containing a kernel that fills less than one-half the shell cavity.

(3) "Foreign material" means leaves, sticks, loose hulls or hull pieces, dirt, rocks, insects or insect fragments not attached to nuts, or any substance other than pistachio shells or kernels. Glass, metal or live insects shall not be permitted.

(4) "Particles and dust" means pieces of nut kernels which will pass through a 5/64 inch round opening.

§ 51.2546 Average mositure content determination.

(a) Determining average moisture content of the lot is not a requirement of the grades, except when nuts are specified as "very well dried." It may be carried out upon request in connection with grade analysis or as a separate determination.

(b) Nuts shall be obtained from a randomly drawn composite sample and only kernels shall be used for analysis. Shells and all non-kernel material shall be removed immediately before anaylsis. Official certification shall be based on the air-oven method or other officially approved methods or devices. Results obtained by methods or devices not officially approved may be reported and shall include a description of the method or device and the owner of any equipment used.

Done in Washington, DC on: July 30, 1986.

William T. Manley,

Deputy Administrator, Marketing Programs.

[FR Doc. 86-17478 Filed 8-1-86; 8:45 am]

BILLING CODE 3410-02-M

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7 CFR Part 908

[Valencia Orange Regulation 373, Amdt. 1; Valencia Orange Regulation 374]

Valencia Oranges Grown in Arizona and Designated Part of California; Limitation of Handling

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Final rule.

SUMMARY: Amendment 1 of Regulation 373 increases the quantity of fresh shipments of California-Arizona Valencia oranges that may be shipped to market during the period July 25–31, 1986. Regulation 374 establishes the quantity of California-Arizona Valencia oranges that may be shipped to market during the period August 1–7, 1986. The amendment and regulation are needed to balance the supply of fresh Valencia oranges with market demand for the periods specified due to the marketing situation confronting the orange industry.

EFFECTIVE DATES: Regulation 373, Amendment 1 (§ 908.673) is effective for the period July 25–31, 1986. Regulation 374 (§ 908.674) is effective for the period August 1–7, 1986.

FOR FURTHER INFORMATION CONTACT: Ronald L. Cioffi, Chief, Marketing Order Administration Branch, F&V, AMS, USDA, Washington, DC 20250, telephone: 202/447-5697.

SUPPLEMENTARY INFORMATION: This final rule has been reviewed under Executive Order 12291 and Departmental Regulation 1512–1 and has been determined to be a "non-major" rule under criteria contained therein.

Pursuant to requirements set forth in the Regulatory Flexibility Act (RFA), the Administrator of the Agricultural Marketing Service has determined that this action will not have a significant economic impact on a substantial number of small entities.

The purpose of the RFA is to fit regulatory actions to the scale of business subject to such actions in order that small businesses will not be unduly or disproportionately burdened. Marketing orders issued pursuant to the Agricultural Marketing Agreement Act and rules issued thereunder are unique in that they are brought about through group action of essentially small entities acting on their own behalf. Thus, both statutes have small entity orientation and compatibility.

The amendment and regulation are issued under Marketing Order No. 908, as amended (7 CFR Part 908), regulating the handling of Valencia oranges grown in Arizona and designated part of California. The order is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674). These actions are based upon the recommendation and information submitted by the Valencia Orange Administrative Committee (VOAC) and upon other available information. It is hereby found that these actions will tend to effectuate the declared policy of the act.

The amendment and regulation are consistent with the marketing policy for 1985–86. The committee met publicly on July 29, 1986, to consider the current and prospective conditions of supply and demand and recommended the quantity of Valencia oranges deemed advisable to be handled during the specified weeks. The committee reports that the market for Valencia oranges has improved.

It is further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rulemaking, and postpone the effective dates until 30 days after publication in the **Federal Register** (5 U.S.C. 553), because there is insufficient time between the date when information upon which this amendment and regulation are based became available and the effective dates necessary to effectuate the declared policy of the act. Interested persons were given opportunity to submit information and views on the amendment and regulation at an open meeting. To effectuate the declared policy of the act, it is necessary to make the regulatory provisions effective as specified, and handlers have been notified of the amendment and regulation and the effective dates.

List of Subjects in 7 CFR Part 908.

Marketing agreements and orders, California, Arizona, Oranges, Valencias.

PART 908—[AMENDED]

1. The authority citation for 7 CFR Part 908 continues to read as follows:

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

2. Section 908.673 is revised to read as follows:

§ 908.673 Valencia Orange Regulation 373.

The quantities of Valencia oranges grown in California and Arizona which may be handled during the period July 25, 1986, through July 31, 1986, are established as follows:

(a) District 1: 368,000 cartons; (b) District 2: 432,000 cartons; (c) District 3: Unlimited cartons.

3. Section 908.674 is added to read as follows:

§ 908.674 Valencia Orange Regulation 374.

The quantities of Valencia oranges grown in California and Arizona which may be handled during the period August 1, 1986, through August 7, 1986, are established as follows:

(a) District 1: 391,000 cartons; (b) District 2: 459,000 cartons; (c) District 3: Unlimited cartons.

Dated: July 30, 1986.

Joseph A. Gribbin,

Director, Fruit and Vegetable Division Agricultural Marketing Service.

[FR Doc. 86-17508 Filed 7-31-86; 9:28 am]

BILLING CODE 3410-02-M

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 50 and 73

Miscellaneous Amendments Concerning Physical Protection of Nuclear Power Plants

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission is amending its regulations to provide a more safety-conscious safeguards system while maintaining current levels of protection. The revised requirements are a result of a Commission review of the impact of safeguards requirements on plant safety objectives. The amendments include refined policy on vital area access controls, authority to suspend safeguards measures during safety emergencies, protection of certain items of security equipment which significantly impact nuclear plant security, and key and lock controls. This amendment supports the Commission's goal of increased assurance that power reactors are adequately protected against sabotage by an insider.

EFFECTIVE DATE: September 3, 1986.

FOR FURTHER INFORMATION CONTACT: Priscilla A. Dwyer, Division of Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 427–4773.

SUPPLEMENTARY INFORMATION:

Background

Commission experience since the implementation of § 73.55, "Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage," indicated a need to clarify the policy for the designation and protection of vital areas containing safety-related equipment. Particular concern has been focused on ensuring that security measures do not impede plant safety. Inspections have indicated certain physical security equipment is not protected as vital, despite the fact that sabotage of this equipment could significantly impact plant safety. In addition, experience with key and lock controls indicates that § 73.55 can be modified to provide greater flexibility while continuing to maintain adequate plant protection. The Commission believes that the clarification and refinement of requirements as reflected in these amendments is appropriate because they afford an increased assurance of plant safety.

On March 12, 1980, the NRC published proposed amendments regarding access controls to 10 CFR Part 73 (45 FR 15937). These amendments were the precursor to the Miscellaneous Amendments. Public comment was invited and received. The Commission significantly revised these requirements to assure adequate access for safety purposes while accomplishing the safeguards objectives.

On August 1, 1984, the NRC published the revised amendments to 10 CFR Part 73 (49 FR 30735) again for public comment as part of the three-rule Insider Safeguards Rules package. This action was taken based upon the substantial changes that had been made to the rule since its prior publication in proposed form. The original 120-day public comment period was extended an additional 90 days at public request and expired on March 7, 1985. Changes to the proposed rule have been made in response to public comment and to provide clarification where necessary. A summary of public comment and, where appropriate, a description of the changes that resulted from them follows. Minor conforming amendments to 10 CFR Part 50, which were subject to public comment as part of the Access Authorization Rule of the Insider Safeguards Rules (49 FR 30726), are included within these amendments because of the Commission's disapproval of final issuance of the Access Authorization Rule. No public comment was received on these conforming amendments to 10 CFR Part 50.

Response to Public Comments

A total of 34 letters of comment were received from utilities, utility associations, contractors, private citizens, and State governments.

The comments addressed a number of issues and have been placed in the following categories:

1. Vital Island Concept/Independent Vital Islands
2. Barriers and Intrusion Alarms
3. Access Lists/Logs
4. Suspension of Safeguards Measures
5. Key/Lock/Badge
6. Clarification of Terms

1. *Vital Island Concept/Independent Vital Islands.* The proposed rule introduced the concept of the "vital island" as one or more vital areas protected as a single entity. Many commenters recommended that the adoption of the vital island concept be voluntary in that mandating the adoption could result in unnecessary expense and would not enhance the current level of protection. The commenters indicated that adequate vital equipment protection is afforded under current regulations. Further, commenters questioned how this revised policy was to interface with on-going NRC vital area designation studies and evolving vital area designation policy.

Concerning independent vital islands, commenters felt that use of the term was in conflict with the intent of the rule because it would result in compartmentalization contrary to the rule's intent. It was further suggested that the designation of the vital areas or equipment should remain site specific rather than requiring specific areas or items of equipment be protected as vital at all sites. Commenters also noted that the development of independent vital islands is unnecesary expense because protection against the insider is already achieved through internal barriers and access controls.

The Commission has considered the public comment on the vital island concept and "independent" vital islands (which in general indicated opposition or confusion) and is cognizant of the evolving nature of the NRC's vital area designation policy. The Commission further notes that present regulations, i.e., 10 CFR 73.55, do not preclude the consolidation of one or more vital areas into a single vital area if approved by the NRC. Based upon these three factors, the Commission believes the most appropriate course of action is to delete the vital island and "independent vital island portions from the rule on an interim basis pending finalization of policy in this area. The supporting Regulatory Guide will be revised accordingly. This deletion also impacts the "sunshine door" provision of these amendments. Further discussion of this issue is found in the discussion of the second category of issues, 2. Barriers and Intrusion Alarms. The remaining proposed amendments of the Miscellaneous Amendments are not impacted and go forward as a final rule.

2. *Barriers and Intrusion Alarms.* Commenters expressed concern regarding the intent of proposed § 73.55(d)(7)(i)(D) to lock and protect by an active intrusion alarm system all exterior doors leading to vital islands which are not otherwise controlled. It was felt this could result in protection in excess of the current required double barriers. It was also recommended that the term "active" be changed to "activated."

Further, proposed § 73.55(c)(2) requires the physical barriers at the perimeter of the protected area to be separated from any other barrier designated as a physical barrier for a

vital area or island within the protected area. Commenters felt that this requirement may not be practical in areas such as the gate house and the water intake structure which often times are located at the protected area perimeter.

As previously noted, the vital island concept has been deleted from the rule on an interim basis pending finalization of vital area policy. Because of this fact, the Commission believes the requirement to lock and alarm all exterior doors leading to vital areas (or islands) can also be deleted on an interim basis. The rule has been modified accordingly. With regard to the term "active," the Commission agrees with the comment in this area and has changed the term "active" to "activated" within the regulatory text to allow for the use of balanced magnetic switches in accordance with current procedures.

Concerning the separation of protected area and vital area barriers, the Commission agrees that this provision may be difficult or impractical to implement in certain situations. While no revision has been made to the requirement, the protection of vital areas which are located on the perimeter of the protected area will be considered to meet the requirement if the structure is Seismic Category I reinforced concrete and, in the case of the essential service water intake structure designated as vital, the following criteria are met with regard to the intake structure. It (1) is secured with screening or grill to prevent introduction of large objects, (2) has double barriers on any non-water side that contains a movable opening, (3) is equipped with heavy duty doors that provide delay to penetration, sufficient to allow arrival of facility response force, (4) is kept under continual surveillance for rapid assessment, and (5) is protected by volumetric intrusion alarm system consistent with criteria found in Regulatory Guide 5.44, "Perimeter Intrusion Alarm Systems." This criteria will be added to the rule's supporting Regulatory Guide.

One commenter noted that the proposed amendment deleted "ceiling" from § 73.55(e)(1) regarding elements of a central alarm station that must be bullet-resisting. This was an error of omission and the word "ceiling" has been added to this provision.

3. *Access Lists/Logs.* Proposed requirements under § 73.70(d) require all individuals granted unescorted vital area access to log their name, badge number, time of entry, reason for entry, and time of exit when entering or exiting a vital area (except the reactor control room). Further proposed revisions to § 73.55(d)(7) require access lists to be updated and approved by cognizant licensee management at least once every 31 days. Commenters indicated that both of these requirements are unnecessary and over burdensome. In a related matter, commenters suggested that the term "log" be revised to allow use of a procedure or system.

The Commission disagrees that the term "log" needs revision. The intent of this provision is to retain a record of all personnel who entered or exited vital areas at a facility; this may be accomplished through a written log or computerized system. The Commission believes that requiring data explaining the reason for vital area entry may be overly burdensome and limit the use of computerized systems. Hence this particular portion of the requirement has been deleted. This is considered acceptable because the requirement to update access lists at least once every 31 days will remain. This assures that only individuals whose specified duties require access to vital areas are allowed access.

4. *Suspension of Safeguards Measures.* Several commenters specifically supported the amendment addressing the suspension of safeguards measures. It was requested that clarification be provided regarding the licensee's responsibility of reporting the suspension of safeguards measures. It was recommended that suspension of safeguards measures be tested during drills and exercises in order to adequately evaluate the system. Additional guidance was requested regarding how this provision is to interface with existing regulation of a similar nature, i.e., § 50.54 (x) and (y).

In response to public comment the Commission has revised the provision for the suspension of safeguards measures to directly relate to the provisions of § 50.54 (x) and (y) and to indicate explicitly that the suspension is reportable under § 73.71. Guidance on the suspension of safeguards measures during drills and exercises has been included in the amendment's supporting Regulatory Guide.

5. *Key/Lock/Badge Issues.* Proposed 73.55(d)(9) requires that keys, locks, combinations, and related equipment be changed whenever a person who had access to them is terminated for untrustworthiness, unreliability, or inadequate work performance. Commenters suggested it was inappropriate to require that keys and locks be changed when an individual is terminated for inadequate work performance. It was indicated that unless there was cause for questioning the individual's reliability or trustworthiness that the requirement to change the keys and locks was an unnecessary expense. It was further suggested that the term "related equipment" be changed to "related access control devices" and the requirement to change all keys, locks, combinations, and related equipment at least every 12 months should be optional. Commenters also noted that provisions should be made for keys, locks and combinations to be changed or *rotated.* Finally commenters felt that it is not practical to retrieve identification badges prior to termination as proposed in § 73.55(d)(7)(i)(C).

After reviewing the comments, the Commission has amended the rule to change the term "related equipment" to "related access control device" to better clarify the Commission's intent. Additionally, the rule has been revised to allow for rotation of keys, locks, and combinations.

The Commission believes the requirement to change or rotate access devices whenever an individual is terminated for inadequate work performance has merit and has made no revision to the rule in this regard. The Commission believes employees terminated for inadequate work performance may have a high potential for becoming disgruntled ex-employees. It is considered merely prudent action to change or rotate the locks and combinations to which these individuals had access. Additionally, the Commission believes the changing or rotating of all access devices at least every 12 months is a minimum requirement necessary to reduce the potential for compromise.

The intent of the requirement to retrieve identification badges prior to termination is to disallow these employees from having unescorted facility access after they have received notice of termination but have not been formally terminated from employment. This accommodates licensee processing time. No revision has been made to the rule in this respect; however, the issue will be clarified in the rule's supporting Regulatory Guide.

6. *Clarification of Terms.* Commenters requested clarification of 10 terms or phrases contained in the proposed Miscellaneous Amendments. These terms have either been dropped because of deletion of the vital island concept and independent vital island provision or have been covered previously in this discussion.

Environmental Impact: Categorical Exclusion

The NRC has determined this rule is the type of action described in categorical exclusion 10 CFR 51.22(c)(3). Therefore neither an environmental impact statement nor an environmental assessment has been prepared for this rule.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget approval numbers 3150–0002 and 3150–0011.

Regulatory Analysis

The Commission has prepared a regulatory analysis on this final regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. The analysis is available for inspection in the NRC Public Document Room, 1717 H Street NW., Washington, DC. Single copies of the analysis may be obtained from Priscilla A. Dwyer, Safeguards Reactor Regulatory Requirements Section, Division of Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 427–4773.

Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. This rule affects electric utilities that own and operate nuclear power plants and are dominate in their respective service areas. These utilities do not fall within the definition of small businesses set forth in section 3 of the Small Business Act, 15 U.S.C. 632, or within the Small Business Size Standards set forth in 13 CFR Part 121. These regulations will affect some nuclear power industry contractors and vendors most of whom are large concerns who service the industry.

Backfit Analysis

As required by 10 CFR 50.109 (50 FR 38097), the Commission has completed a backfit analysis for this final rule. This analysis, along with a summary regulatory analysis, follows.

I. Summary Regulatory Analysis

1. Objective. The objective of this rule is to provide a more safety-conscious safeguards system while maintaining current levels of safeguards protection at nuclear power plants. Commission experience since the implementation of § 73.55, "Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage," indicated a need to clarify policy for the protection of vital areas containing safety-related equipment. Particular concern has been focused on ensuring that security measures do not impede plant safety. Inspections have indicated that certain physical security equipment is not protected as vital, despite the fact that the equipment safeguards vital areas containing essential safety-related equipment. In addition, experience with key and lock controls indicates that § 73.55 can be modified to provide greater flexibility while continuing to maintain adequate plant protection. This amendment further supports the Commission's goal of increased assurance that power reactors are adequately protected against sabotage by an insider.

2. Description of Activity. The amendments include revised policy on:

(1) Vital area access controls to establish and update at least every 31 days access lists for each vital area, and to design the access authorization system to accommodate the potential need for rapid ingress or egress of individuals during emergencies,

(2) Authority to suspend safeguards measures during safety emergencies,

(3) The protection of onsite secondary power supply systems for alarm annunciator equipment and nonportable communications equipment as vital, and

(4) Key and lock controls to assure such devices are changed or rotated at least once every 12 months or when there is evidence of compromise or an individual with access to the keys or locks is terminated for cause.

3. Potential Change in Risk to the Public from Accidental Offsite Release of Radioactive Material. Permitting unauthorized personnel access to vital areas at power reactors and not protecting certain equipment which safeguards vital areas containing essential safety-related equipment creates significant potential for harm. To the extent that this regulation establishes certain controls for vital area access and protection of certain equipment as vital, the risk of radiological sabotage and offsite release of radioactive material (risk to the public) is reduced.

4. Potential Impact on Radiological Exposure of Facility Employees. Assuring that safeguards measures (particularly in the area of access/egress controls to vital areas) do not have an adverse impact on plant safety during emergencies reduces the potential impact on radiological exposure of facility employees.

Further, protection of specific security equipment as vital which has not previously been protected as vital reduces the risk of the equipment being sabotaged and, hence, reduces the risk of a radioactive release. Thus, this action also reduces the potential impact on radiological exposure of facility employees.

5. Installation and Continuing Costs. Implementation Cost Per Site: $10.2K; Annual Operational Savings Per Site: $15.0K (due to key and lock control revisions).

6. Potential Safety Impact of Changes in Plant or Operational Complexity.

(a) Maintaining current access lists to vital areas will increase plant safety by helping to assure that only authorized individuals are granted access to these areas.

(b) Designing a facility's access authorization system to accommodate the need for rapid ingress/egress of individuals during emergencies reduces the complexity of plant operation during safety-related emergencies.

(c) Authority to suspend safeguards measures during safety-related emergencies reduces the complexity of plant operations during such emergencies.

(d) Changing or rotating keys and locks annually or when access is suspended for cause, as opposed to when any individual with access to keys or locks changes duty, reduces the complexity of plant operations.

7. Estimated Resource Burden on the NRC.

Implementation Cost Per Existing Site: $4.3K; Implementation Cost Per New Site: none; Operational Costs: none.

Existing resource skills are adequate. FTE requirements are reflected in budget documents.

8. Potential Impact of Differences in Facility Type or Age. No potential impact is noted of differences in facility type or age on the relevance or practicality of implementing this rule.

9. The Proposed Rule is final.

II. Justification

1. Increased Protection of the Public Health and Safety. In addition to providing a more safety-conscious security system while maintaining adequate security, the Miscellaneous Amendments contain revised policy on vital access controls, authority to suspend safeguards measures during emergencies, protection of specific

security equipment as vital, and key and lock controls. Each of these measures contributes to the Commission's goal to provide increased assurance against the insider threat at nuclear power plants. With respect to vital area access controls, increased assurance that only authorized individuals are granted unescorted access to vital areas reduces the potential for access by unauthorized individuals intent upon committing radiological sabotage. Controlling access to these areas, including the use of access lists updated every 31 days, contributes significantly to the protection of the public health and safety because of the sensitive nature of vital areas. Authority to suspend safeguards measures during safety-related emergencies will facilitate plant access by emergency response personnel. For this reason certain site emergencies with the potential to result in a radioactive release might be mitigated in a more timely manner by emergency response personnel, thereby preventing a radioactive release. In this situation, the protection of the public health and safety would be significantly increased. The specific security equipment that would be protected as vital under these amendments are onsite secondary power supplies for alarm annunciator equipment and nonportable communications equipment. Protection of this equipment as vital will help assure proper operation of the central alarm station during a safeguards emergency, and, further, will help assure communications with local law enforcement agencies (LLEA) in such an emergency. The ability of the site security force to respond to site emergencies in a cohesive, timely manner, and to call upon LLEA, if needed, significantly increases the assurance that the public health and safety will be adequately assured. Finally, reducing the operational complexity of key and lock controls while assuring that these controls remain adequate, will permit safer plant operation. This results in an overall increase in the protection of the public health and safety. In conclusion, these amendments, in toto, will result in a significant increase in the protection of the public health and safety.

2. Cost Implications. The cost of the Miscellaneous Amendments associated with implementation is estimated to be $10.2K per site. However, the annual operational savings per site is estimated to be $15.0K. This is primarily due to key and lock control revisions which in part require changing or rotating keys or locks when individuals with access to them have access suspended for cause rather than simply because of change of duty.

3. Priority and Scheduling. Based upon the resulting substantial increase in the overall protection of the public health and safety as discussed above, this backfit is considered to be high priority.

In addition, the proposed changes do not affect the schedules of other regulatory activities ongoing at the facility.

4. Findings. The Commission finds that issuance of this final rule will result in a substantial increase in the overall protection of the public health and safety, and direct and indirect costs are justified in view of the increase in protection.

List of Subjects

10 CFR Part 50

Antitrust, Classified information, Fire prevention, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

10 CFR Part 73

Hazardous materials-transportation, Incorporation by reference, Nuclear power plants and reactors, Penalty, Reporting and recordkeeping requirements, Security measures.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 553, the NRC is adopting the following amendments to 10 CFR Parts 50 and 73.

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 is revised to read as follows:

Authority: Secs. 103, 104, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2133, 2134, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, 202, 206, 88 Stat. 1242, 1244, 1246, as amended (42 U.S.C. 5841, 5842, 5846), unless otherwise noted.

Section 50.7 also issued under Pub. L. 95–601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Sections 50.58, 50.91, and 50.92 also issued under Pub. L. 97–415, 96 Stat. 2073 (42 U.S.C. 2239). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80—50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Sections 50.100–50.102 also issued under sec. 186, 68 Stat. 955 (42 U.S.C. 2236).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), §§ 50.10 (a), (b), and (c), 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§ 50.10 (b) and (c) and 50.54 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§ 50.55(e), 50.59(b), 50.70, 50.71, 50.72, 50.73, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. In § 50.34, paragraph (d) is revised to read as follows:

§ 50.34 Contents of applications; technical information.

* * * * *

(d) *Safeguards contingency plan.* Each application for a license to operate a production or utilization facility that will be subject to §§ 73.50, 73.55, or 73.60 of this chapter must include a licensee safeguards contingency plan in accordance with the criteria set forth in Appendix C to 10 CFR Part 73. The safeguards contingency plan shall include plans for dealing with threats, thefts, and radiological sabotage, as defined in Part 73 of this chapter, relating to the special nuclear material and nuclear facilities licensed under this chapter and in the applicant's possession and control. Each application for such a license shall include the first four categories of information contained in the applicant's safeguards contingency plan. (The first four categories of information as set forth in Appendix C to 10 CFR Part 73 are Background, Generic Planning Base, Licensee Planning Base, and Responsibility Matrix. The fifth category of information, Procedures, does not have to be submitted for approval.) [7]

3. In § 50.54, paragraph (p) is revised to read as follows:

§ 50.54 Conditions of licenses.

* * * * *

(p)(1) The licensee shall prepare and maintain safeguards contingency plan procedures in accordance with Appendix C of 10 CFR Part 73 for effecting the actions and decisions contained in the Responsibility Matrix of the safeguards contingency plan. The licensee may make no change which would decrease the effectiveness of a security plan, or guard training and qualification plan prepared pursuant to §§ 50.34(c), 50.34(f), or Part 73 of this chapter, or of the first four categories of information (Background, Generic Planning Base, Licensee Planning Base, Responsibility Matrix) contained in a licensee safeguards contingency plan prepared pursuant to § 50.54(d) or Part 73, as applicable, without prior approval

[7] A physical security plan that contains all the information required in both § 73.55 and Appendix C to Part 73 satisfies the requirement for a contingency plan.

of the Commission. A licensee desiring to make such a change shall submit an application for an amendment to the licensee's license pursuant to § 50.90.

(2) The licensee may make changes to plans referenced above without prior Commission approval if the changes do not decrease the safeguards effectiveness of the plan. The licensee shall maintain records of changes to the plans made without prior Commission approval for a period of two years from the date of the change, and shall furnish to the Director of Nuclear Material Safety and Safeguards (for enrichment and reprocessing facilities) or the Director of Nuclear Reactor Regulation (for nuclear reactors), U.S. Nuclear Regulatory Commission, Washington, DC 20555, with a copy to the appropriate NRC Regional Office specified in Appendix A of Part 73 of this chapter, a report containing a description of each change within two months after the change is made. Commencing on February 9, 1983, Licensees in Regions I and II, and commencing on October 1, 1983, licensees in all regions shall furnish the report required by this paragraph to the Regional Administrator of the appropriate NRC Regional Office specified in Appendix A of Part 73 of this chapter, with a copy to the Director of Nuclear Material Safety and Safeguards (for enrichment and reprocessing facilities) or to the Director of Nuclear Reactor Regulation (for nuclear reactors). Prior to the safeguards contingency plan being put into effect, the licensee shall have:

(i) All safeguards capabilities specified in the safeguards contingency plan available and functional,

(ii) Detailed procedures developed according to Appendix C to Part 73 available at the licensee's site, and

(iii) All appropriate personnel trained to respond to safeguards incidents as outlined in the plan and specified in the detailed Procedures.

(3) The licensee shall provide for the development, revision, implementation, and maintenance of its safeguards contingency plan. To this end, the licensee shall provide for a review at least every 12 months of the safeguards contingency plan by individuals independent of both security program management and personnel who have direct responsibility for implementation of the security program. The review must include a review and audit of safeguards contingency procedures and practices, an audit of the security system testing and maintenance program, and a test of the safeguards system along with commitments established for response by local law enforcement authorities. The results of the review and audit, along with recommendations for improvements, must be documented, reported to the licensee's corporate and plant management, and kept available at the plant for inspection for a period of two years.

* * * * *

PART 73—PHYSICAL PROTECTION OF PLANTS AND MATERIALS

4. The authority citation for Part 73 is revised to read as follows:

Authority: Secs. 53, 161, 68 Stat. 930, 948, as amended, sec. 147, 94 Stat. 780 (42 U.S.C. 2073, 2167, 2201); sec. 201, as amended, 204, 88 Stat. 1242, as amended, 1245 (42 U.S.C. 5841, 5844).

Section 73.37(f) is also issued under sec. 301, Pub. L. 96–295, 94 Stat. 789 (42 U.S.C. 5841 note).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 73.21, 73.37(g), and 73.55 are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§ 73.20, 73.24, 73.25, 73.26, 73.27, 73.37, 73.40, 73.45, 73.46, 73.50, 73.55, and 73.67 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§ 73.20(c)(1), 73.24(b)(1), 73.26 (b)(3), (h)(6), and (k)(4), 73.27 (a) and (b), 73.37(f), 73.40 (b) and (d), 73.46 (g)(6) and (h)(2), 73.50(g)(2), (3)(iii)(B) and (h), 73.55(h)(2), and (4)(iii)(B), 73.70, 73.71, and 73.72 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

5. In § 73.55, the introductory paragraph, paragraph (a), paragraphs (d)(7) and (d)(9), and paragraph (e)(1) are revised to read as follows:

§ 73.55 Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage.

By Dec. 2, 1986 each licensee, as appropriate, shall submit proposed amendments to its security plan which define how the amended requirements of paragraphs (a), (d)(2), (d)(7), (d)(9), and (e)(1) will be met. Each submittal must include a proposed implementation schedule for Commission approval. The amended safeguards requirements of these paragraphs must be implemented by the licensee within 180 days after Commission approval of the proposed security plan in accordance with the approved schedule.

(a) *General performance objective and requirements.* The licensee shall establish and maintain an onsite physical protection system and security organization which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety. The physical protection system shall be designed to protect against the design basis threat of radiological sabotage as stated in § 73.1(a). To achieve this general performance objective, the onsite physical protection system and security organization must include, but not necessarily be limited to, the capabilities to meet the specific requirements contained in paragraphs (b) through (h) of this section. The Commission may authorize an applicant or licensee to provide measures for protection against radiological sabotage other than those required by this section if the applicant or licensee demonstrates that the measures have the same high assurance objective as specified in this paragraph and that the overall level of system performance provides protection against radiological sabotage equivalent to that which would be provided by paragraphs (b) through (h) of this section and meets the general performance requirements of this section. Specifically, in the special cases of licensed operating reactors with adjacent reactor power plants under construction, the licensee shall provide and maintain a level of physical protection of the operating reactor against radiological sabotage equivalent to the requirements of this section. In accordance with § 50.54 (x) and (y) of Part 50, the licensee may suspend any safeguards measures pursuant to § 73.55 in an emergency when this action is immediately needed to protect the public health and safety and no action consistent with license conditions and technical specification that can provide adequate or equivalent protection is immediately apparent. This suspension must be approved as a minimum by a licensed senior operator prior to taking the action. The suspension of safeguards measures must be reported in accordance with the provisions of § 73.71. Reports made under § 50.72 need not be duplicated under § 73.71.

* * * * *

(d) Access requirements. * * *

(7) The licensee shall:

(i) Establish an access authorization system to limit unescorted access to vital areas during nonemergency conditions to individuals who require access in order to perform their duties. To achieve this, the licensee shall:

(A) Establish current authorization access lists for each vital area. The access lists must be updated and reapproved by the cognizant licensee manager or supervisor at least once every 31 days. The licensee shall include on the access list only individuals whose specific duties require access to vital areas during nonemergency conditions.

(B) Positively control, in accordance with the access list established pursuant to paragraph (d)(7)(i) of this section, all points of personnel and vehicle access to vital areas.

(C) Revoke, in the case of an individual's involuntary termination for cause, the individual's unescorted facility access and retrieve his or her identification badge and other entry devices, as applicable, prior to or simultaneously with notifying this individual of his or her termination.

(D) Lock and protect by an activated intrusion alarm system all unoccupied vital areas.

(ii) Design the access authorization system to accommodate the potential need for rapid ingress or egress of individuals during emergency conditions or situations that could lead to emergency conditions. To help assure this, the licensee shall:

(A) Ensure prompt access to vital equipment.

(B) Periodically review physical security plans and contingency plans and procedures to evaluate their potential impact on plant and personnel safety.

* * * * *

(9) All keys, locks, combinations, and related access control devices used to control access to protected areas and vital areas must be controlled to reduce the probability of compromise. All such keys, locks, combinations, and related access control devices must be changed or rotated at least every 12 months. Whenever there is evidence or suspicion that any key, lock, combination, or related access control devices may have been compromised, it must be changed or rotated. The licensee shall issue keys, locks, combinations, and other access control devices to protected areas and vital areas only to persons granted unescorted facility access. Whenever an individual's unescorted access is revoked due to his or her lack of trustworthiness, reliability, or inadequate work performance, keys, locks, combinations, and related access control devices to which that person had access must be changed or rotated.

(e) *Detection aids.* (1) All alarms required pursuant to this part must annunciate in a continuously manned central alarm station located within the protected area and in at least one other continuously manned station not necessarily onsite, so that a single act cannot remove the capability of calling for assistance or otherwise responding to an alarm. The onsite central alarm station must be located within a building in such a manner that the interior of the central alarm station is not visible from the perimeter of the protected area. This station must not contain any operational activities that would interfere with the execution of the alarm response function. The walls, doors, floor, ceiling, and any windows in the walls and in the doors of the central alarm station shall be bullet-resisting. On site secondary power supply systems for alarm annunciator equipment and non-portable communications equipment as required in paragraph (f) of this section must be located within vital areas.

* * * * *

6. In § 73.70, paragraph (d) is revised to read as follows:

§ 73.70 Records.

* * * * *

(d) A log indicating name, badge number, time of entry, and time of exit of all individuals granted access to a vital area except those individuals entering or exiting the reactor control room.

* * * * *

Dated at Washington, DC, this 29th day of July 1986.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 86-17500 Filed 8-1-86; 8:45 am]

BILLING CODE 7590-01-M

10 CFR Part 73

Searches of Individuals at Power Reactor Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission is amending its requirements for entry searches at power reactor facilities. This amendment is needed to clarify requirements for searches of individuals at these facilities. This amendment requires equipment searches of all individuals seeking access to protected areas, except on-duty law enforcement officers. Additionally, pat-down searches will be required when detection equipment fails or cause to suspect exists. This amendment supports the Commission's goal of increased assurance that power reactors are adequately protected against sabotage by an insider.

EFFECTIVE DATE: September 3, 1986.

FOR FURTHER INFORMATION CONTACT: Priscilla A. Dwyer, Division of Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 427-4773.

SUPPLEMENTARY INFORMATION:

Background

On February 24, 1977, the Nuclear Regulatory Commission published in the **Federal Register** (42 FR 10836) effective amendments to its regulation in 10 CFR Part 73, "Physical Protection of Plants and Materials." One requirement included in these amendments was to search individuals for firearms, explosives, and incendiary devices. The regulations specified that the search function would be conducted by a physical search or by use of equipment capable of detecting such devices. The requirements involving procedural measures were scheduled for implementation by August 24, 1977 or earlier if equipment was installed. Since equipment available at that time was not capable of detecting all types of explosives and incendiary devices, the search requirement called for additional measures, such as random physical searches, to provide high assurance of protecting against sabotage. The implementation date of May 25, 1977, for procedural measures was extended under **Federal Register** notice (42 FR 51607) dated September 29, 1977 to August 24, 1978, the date when all the requirements of § 73.55 were to have been required, pending further review by the Commission. The implementation was further extended by a series of notices (43 FR 34765, 44 FR 11201, 44 FR 47758, and 44 FR 65969) until on December 1, 1980 (45 FR 79492) when the Commission revised the regulation to read: ". . . a licensee need not implement the physical search requirement of paragraph (d)(1) of this section for individuals who are regular employees of the licensees . . . until 60 days following Commission approval of security plan amendments which define how the final search requirements of paragraph (d)(1) of this section, will be met." At the same time, the Commission issued proposed revisions to 10 CFR 73.55(d)(1) to finalize requirements for personnel searches at protected area entry portals of power reactors. The Commission revised the rule in response to public comment and the recommendations made by the Committee to Review Safeguards Requirements at Power Reactors (Safety/Safeguards Committee). This Committee had the overall task of studying power reactor safeguards requirements and practices to determine

whether actual or potential conflicts exist between plant safety and safeguards objectives.

On August 1, 1984, the proposed rule was again published for public comment (49 FR 30738) as part of the proposed Insider Safeguards Rules because of the interrelationship among the rules with regard to protection against the insider threat. The original 120-day comment period on the Insider Safeguards Rules was extended an additional 90 days at licensee request and expired on March 7, 1985.

Summary of Public Comment

A total of 28 letters of comments was received from licensees, licensee groups, licensee contractors, and unions. A summary of the public comments follows:

1. *Use of Pat-Down Searches.* The proposed rule requires pat-down searches of all individuals requiring facility access, except on-duty law enforcement officers, when search equipment fails or cause to suspect exists. A broad range of comments was received on this issue. Some comment indicated full-time facility employees should never be pat-down searched because pat-down search of long-standing, trusted employees is degrading. Other comment recommended a distinction be made on pat-down search requirements for individuals with unescorted versus escorted access. Finally, comments recommended that only 5 or 10% of individuals requiring access should be pat-down searched when search equipment failed, giving credit for use of random checks and citing the time-consuming nature of pat-down searches. Some comment went as far to say that pat-down searches were unnecessary when search equipment failed because the equipment is usually repaired before individuals being searched are aware of equipment failure. The Commission has rejected revising the rule in response to the above noted comments for two reasons. First, allowing no search of any kind upon equipment failure provides no protection against an insider who may have surreptitiously originated the failure of the equipment. Second, the use of random pat-down searches was explored by the Safety/Safeguards Committee. As a result of its study, the Committee believed that most licensees had successfully adjusted to 100% equipment search, and that 100% pat-down searches would be more easily implemented than those randomly implemented.

2. *Individuals Exempt from Equipment Search.* The proposed rule requires all persons entering the protected area of nuclear power reactors, except on-duty law enforcement officers, to be searched using metal and explosive detectors. Comment recommended that persons exempt from equipment search requirements should also include emergency response personnel and armed security force members. As a result of the Commission's review of potential conflicts between safeguards and safety requirements conducted by the Safety/Safeguards Committee, the Commission is revising 10 CFR 73.55(a) to provide authority to licensees to suspend safeguards measures as required to accommodate emergency response. This revision is being made as part of the Miscellaneous Amendments rule published elsewhere in this issue. The Commission has rejected the inclusion of armed security force members within the search exemption. The distinction has been made between law enforcement officers and members of a facility's security force because law officers for the most part will be under continual escort. This provides an increased degree of assurance of protection against a malevolent act. Security personnel on the other hand are for the most part provided unescorted access based upon screening. Because the Commission's design basis threat includes an internal threat of an insider including an employee in any position, the Commission believes the time to equipment search members of the security force is insignificant compared to the increased assurance against a malevolent insider gained by equipment search.

3. *Time Lapse for Implementation of Pat-Down.* The proposed rule requires the licensee to immediately implement pat-down searches of all individuals, except on-duty law enforcement officers, requiring facility access when search equipment fails. Some comment indicated that immediate implementation of the pat-down search procedure was not necessary. These commenters recommended that a lapse ranging from 4 to 72 hours was acceptable prior to implementing pat-down searches. Justification for the time lapse included the fact that individuals being searched would be unaware of equipment malfunction and that the majority of individuals being searched were long-time, trusted employees. The Commission has rejected revising the rule in response to these comments because it maintains the belief that contraband searches are necessary elements of a reactor security program and immediate pat-down searches are easily implemented.

On the basis of public comment received, no changes were made to the proposed search requirements and the Commission is now publishing these amendments in final form.

Environmental Impact: Categorical Exclusion

The NRC has determined that this proposed rule is the type of action described in categorical exclusion 10 CFR 51.22(c)(3). Therefore neither an environmental impact statement nor an environmental assessment has been prepared for this rule.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget approval number 3150–0002.

Regulatory Analysis

The Commission has prepared a regulatory analysis on this final regulation. The analysis examines the costs and benefits of the alternatives considered by the Commission. The analysis is available for inspection in the NRC Public Document Room, 1717 H Street, NW., Washington, DC 20555. Single copies of the analysis may be obtained from Priscilla A. Dwyer, Safeguards Reactor Regulatory Requirements Section, Division of Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 427–4773.

Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this revised rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. This rule affects electric utilities that own and operate nuclear power plants and are dominant in their respective service areas. These utilities do not fall within the definition of small businesses set forth in Section 3 of the Small Business Act, 15 U.S.C. 632, or within the Small Business Size Standards set forth in 13 CFR Part 121. These regulations will affect some nuclear power industry contractors and vendors most of whom are large concerns who service the industry.

Backfit Analysis

As required by 10 CFR 50.109 (50 FR 38097), the Commission has completed a backfit analysis for this final rule. This analysis, which includes a summary regulatory analysis, follows.

I. Summary Regulatory Analysis

1. Objective

The objective of this rule is to clarify requirements for entry searches of individuals at power reactor facilities to preclude the introduction of contraband into protected areas at such facilities. This amendment supports the Commission goal of increased assurance that power reactors are adequately protected against acts of sabotage.

2. Description of Activity

This amendment requires firearms and explosive detection equipment searches of all individuals seeking access to protected areas at power reactors, except on-duty law enforcement officers, to detect unauthorized firearms, explosives, and incendiary devices. Additionally, pat-down searches are required when detection equipment fails or cause to suspect exists.

The amendment, in effect, adds a requirement for pat-down searches in the event of equipment failure and codifies interim procedures established by the Commission in 1977 (42 FR 51507). At that time an effective amendment to 10 CFR 73.55, Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage, was issued amending prefatory language to § 73.55 to relieve licensees from conducting pat-down searches of site employees in accordance with § 73.55(d)(1). Section 73.55(d)(1) requires the licensee to control all points of personnel and vehicular access to the protected area at power plants through identification and search. The search function for detection of firearms, explosives, and incendiary devices must be conducted by either a physical search or by use of equipment capable of detecting such devices. The amendment in 1977 stated that search procedures implemented using only equipment capable of detecting firearms, explosives, and incendiary devices satisfied the performance requirements of § 73.55(d)(1) until final search procedures were issued. The Search Requirements Rule represents these final search procedures.

3. Potential Change in Risk to the Public From Accidental Offsite Release of Radioactive Material

Allowing unauthorized firearms, explosives, or incendiary devices to enter the protected area at power reactors creates significant potential for harm. To the extent that this program improves the licensees' ability to prohibit the introduction of such contraband that would otherwise be carried into the plant, the risk of radiological sabotage and offsite release of radioactive material (risk to the public) is reduced.

4. Potential Impact on Radiological Exposure of Facility Employees

To the extent that the risk of radiological sabotage is reduced, the potential impact on radiological exposure of facility employees would also be reduced. Otherwise, with respect to radiological exposure, there is no impact on facility employees.

5. Installation and Continuing Costs

Implementation Cost Per Existing Site (which consists of submittal of security plan amendments), minimal.

Implementation Cost Per New Site, $16.4K.

Annual Operational Cost Per Site, minimal.

6. Potential Safety Impact of Changes in Plant or Operational Complexity

Not applicable.

7. Estimated Resource Burden on the NRC

Implementation Costs All Sites—Licensing Review, $205.0K.

Operational Costs, minimal.

Existing resource skills are adequate. FTE requirements are reflected in budget documents.

8. Potential Impact of Differences in Facility Type or Age

No potential impact is noted of differences in facility type on the relevance or practicality of implementing this rule. However as indicated in Item 5, existing facilities would incur no cost because of interim procedures presently in place, while new facilities would incur the costs indicated in Item 5.

9. The Proposed Rule is final.

II. Justification

1. Increased Protection of the Public Health and Safety

The stated objective for this rule is to clarify requirements for entry searches of individuals to preclude the introduction of contraband such as unauthorized firearms, explosives, and incendiary devices into the protected area at power reactors. This rule established a regulatory base for procedures which are at present interim.

Prohibiting unauthorized firearms, exposives, and incendiary devices from the facility through use of state-of-the-art equipment search will significantly reduce the risk and potential for harm from malevolent acts involving such contraband. The NRC design basis threat against which the physical protection at nuclear power plants is targeted is designed to assure the protection of the public health and safety. The design basis threat includes acts of radiological sabotage. Unauthorized use of the contraband devices previously cited could contribute significantly to the success of an attempted act of radiological sabotage. If the potential for successful completion of radiological sabotage can be decreased, the overall protection of the public health and safety would be increased. Therefore, the significant decrease in the potential for successful completion of radiological sabotage that will result from prohibiting unauthorized contraband onsite will result in a substantial increase in the overall protection of the public health and safety.

2. Cost Implications

The cost of the Search Requirements associated with implementation would be insignificant for existing sites (because licensees have at present implemented interim procedures requiring electronic search equipment) and $16.4K for future sites, with no significant annual operating cost.

3. Priority and Scheduling

Based upon the resulting substantial increase in the overall protection of the public health and safety, as discussed above, this backfit is considered to be high priority.

In addition, the proposed changes do not affect the schedules of other regulatory activities on-going at affected facilities.

4. Findings

The Commission finds that (1) issuance of this final rule will result in a substantial increase in the overall protection of the public health and safety, and (2) direct and indirect costs are justified in view of the increase in protection.

List of Subjects in 10 CFR Part 73

Hazardous materials-transportation, Incorporation by reference, Nuclear materials, Nuclear power plants and reactors, Penalty, Reporting and recordkeeping requirements, Security measures.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 553, the NRC

is adopting the following amendment to 10 CFR Part 73.

PART 73—PHYSICAL PROTECTION OF PLANTS AND MATERIALS

1. The authority citation for Part 73 is revised to read as follows:

Authority: Secs. 53, 161, 68 Stat. 930, 948, as amended, sec. 147, 94 Stat. 780 (42 U.S.C. 2073, 2167, 2201); sec. 201, as amended, 204, 88 Stat. 1242, as amended, 1245 (42 U.S.C. 5841, 5844).

Section 73.37(f) is also issued under sec. 301, Pub. L. 96-295, 94 Stat. 789 (42 U.S.C. 5841 note).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 73.21, 73.37(g), and 73.55 are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§ 73.20, 73.24, 73.25, 73.26, 73.27, 73.37, 73.40, 73.45, 73.46, 73.50, 73.55, and 73.67 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§ 73.20(c)(1), 73.24(b)(1); 73.26(b)(3), (h)(6), and (k)(4), 73.27(a) and (b), 73.37(f), 73.40(b) and (d), 73.46(g)(6) and (h)(2), 73.50(g)(2), (3)(iii)(B) and (h), 73.55(h)(2), and (4)(iii)(B), 73.70, 73.71, and 73.72 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. In § 73.55, paragraph (d)(1) is revised to read as follows:

§ 73.55 Requirement for physical protection of licensed activities in nuclear power reactors against radiological sabotage.

* * * * *

(d) *Access Requirements.* (1) The licensee shall control all points of personnel and vehicle access into a protected area. Identification and search of all individuals unless otherwise provided herein must be made and authorization must be checked at these points. The search function for detection of firearms, explosives, and incendiary devices must be accomplished through the use of both firearms and explosive detection equipment capable of detecting those devices. The licensee must subject all persons except bona fide Federal, State, and local law enforcement personnel on official duty to these equipment searches upon entry into a protected area. When the licensee has cause to suspect that an individual is attempting to introduce firearms, explosives, or incendiary devices into protected areas, the licensee shall conduct a physical pat-down search of that individual. Whenever firearms or explosives detection equipment at a portal is out of service or not operating satisfactorily, the licensee shall conduct a physical pat-down search of all persons who would otherwise have been subject to equipment searches. The individual responsible for the last access control function (controlling admission to the protected area) must be isolated within a bullet-resisting structure as described in paragraph (c)(6) of this section to assure his or her ability to respond or to summon assistance. By Dec. 2, 1986 each licensee shall submit revisions to its security plan which define how the final search requirements of this paragraph will be met. The final search requirements of this package must be implemented by the licensee within 60 days after Commission approval of the proposed security plan revisions.

* * * * *

Dated at Washington, DC, this 29th day of July 1986.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 86-17499 Filed 8-1-86; 8:45 am]

BILLING CODE 7590-01-M

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10 CFR Part 110

Licensing Requirements for the Export of Tritium

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations for the export of tritium under a general license. The revised regulations impose more restrictive limits on the amount of dispersed tritium which can be contained in luminescent light sources and other items exported under the general license. The revision precludes the export of large tritium light sources under the general license unless the light source is installed in an aircraft as a safety device. This action is necessary to address the concerns of the Executive Branch and other governments that the current general license regulations covering tritium luminescent light sources may represent a potential proliferation risk. This amendment also defines tritium in order to clarify its meaning to exporters and to conform NRC's export regulations with international guidelines.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Elaine O. Hemby, Office of International Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555, (301) 492-7984 or Joanna M. Becker, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, (301) 492-7630.

SUPPLEMENTARY INFORMATION: The Executive Branch has requested that the NRC amend its regulations concerning the export of tritium contained in luminescent light sources under a general license. This action is being taken as a result of a review of tritium export controls by the NRC and the Executive Branch and consultations with other governments which indicated that the current general license may represent a potential proliferation concern. Section 110.23(a)(2) now permits individual shipments of tritium in light sources of up to 10,000 curies to any country except those listed in the embargoed destinations (§ 110.28) with no other limitations. The general license was intended to cover exports of many small tritium light sources for non-nuclear related commercial products (e.g., watch dials, exit signs, etc.). At the time the current general license was proposed, it was considered unnecessary to impose upper limits on the amount of tritium contained in each light source because most light sources contained only a few millicuries of tritium up to a maximum of 25 curies. However, in recent years, the maximum size of light sources has increased significantly. For example, tritium light panels when used for remote airfields contain five light sources of 60 curies each, for a total of 300 curies of tritium per panel. In these larger quantities, it becomes technically easier to extract bulk tritium from the light sources and divert it to proliferation sensitive end uses. To address this concern, the current general license provisions of § 110.23(a)(2) which now covers tritium in light sources and § 110.23(a)(3) which now covers all other items containing dispersed tritium in quantities of less than 100 curies per item will be combined into a single general license provision. The revised § 110.23(a)(2) will limit exports of tritium in any dispersed form under a general license to 10 curies per item, 1,000 curies per shipment, and 10,000 curies per person per year to any one country. A limited general license authority will be retained at § 110.23(a)(3) to allow the continuation of the export of tritium in amounts exceeding 10 curies per item when installed in aircraft as a luminescent safety device. This limited general license authority is appropriate because many aircraft tritium light sources exceed 10 curies and, when installed in aircraft, are of minimal proliferation concern.

In summary, exporters of any item containing dispersed tritium including a luminescent light source in quantities greater than 10 curies per item will be required to obtain a specific NRC license before they may export the item unless the item is a light source installed in an aircraft as a safety device.

NRC also will be amending its regulations in § 110.2, the list of definitions, to add a definition of tritium reading as follows: "Tritium" means not only tritium but also includes compounds and mixtures containing tritium in which the ratio of tritium to hydrogen by atoms exceeds one part in 1,000. This action clarifies the meaning of tritium to exporters, and also conforms NRC's export regulations with international export control guidelines. Finally, a minor editorial change will be made in the wording of the current general license provision pertaining to the export of bulk tritium in § 110.23(c) for the purpose of making it consistent with the language in the other general license entries.

The impact of this rulemaking action on exporters is expected to be minimal. NRC believes less than five exporters of tritium light sources will be affected per year. With respect to exports of other forms of dispersed tritium, NRC also believes less than five exporters will be affected per year.

Because this rulemaking involves a foreign affairs function of the United States and since the Department of State has requested expeditious action, notice of proposed rulemaking and public procedure thereon are not required by the Administrative Procedure Act (5 U.S.C. 553 (a)(1)), and the final rule may be made effective upon publication in the **Federal Register.**

Environmental Impact: Categorical Exclusion

The NRC has determined that the final rule in Part 110 is the type of action described in 10 CFR 51.22(c)(1). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget approval number 3150–0036.

Regulatory Analysis

The Commission has prepared a regulatory analysis of this final rule. The analysis examines the costs and benefits of the alternatives considered by the Commission. The analysis is available for inspection in the NRC Public Document Room, 1717 H Street, NW, Washington, DC. Single copies of the analysis may be obtained from Elaine Hemby, Office of International Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492–7984.

Backfit

The NRC has determined that the backfit analysis provisions in 10 CFR 50.109 do not apply to amendments to 10 CFR Part 110 because Part 110 applies only to the export and import of nuclear facilities, material, and components and does not deal with domestic facilities. Therefore, a backfit analysis has not been prepared for these amendments.

List of Subjects in 10 CFR Part 110

Administrative practice and procedure, Classified information, Export, Import, Incorporation by reference, Intergovernmental relations, Nuclear materials, Nuclear power plants and reactors, Penalty, Reporting and recordkeeping requirements, Scientific equipment.

Pursuant to the Atomic Energy Act of 1954, as amended the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553 the following amendments to 10 CFR Part 110 are published as a document subject to codification.

PART 110—EXPORT AND IMPORT OF NUCLEAR EQUIPMENT AND MATERIAL

1. The authority citation for Part 110 continues to read as follows:

Authority: Secs. 51, 53, 54, 57, 63, 64, 65, 81, 82, 103, 104, 109, 111, 126, 127, 128, 129, 161, 181, 182, 183, 187, 189, 68 Stat. 929, 930, 931, 932, 933, 936, 937, 948, 953, 954, 955, 956, as amended (42 U.S.C. 2071, 2073, 2074, 2077, 2092–2095, 2111, 2112, 2133, 2134, 2139, 2139a, 2141, 2154–2158, 2201, 2231–2233, 2237, 2239); sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841).

Section 110.1(b)(2) also issued under Pub. L. 96–533, 94 Stat. 3138 (42 U.S.C. 2403). Section 110.11 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152) and secs. 54c. and 57d., 88 Stat. 473, 475 (42 U.S.C. 2074). Seaction 110.50(b)(3) also issued under sec. 123, 92 Stat. 142 (42 U.S.C. 2153). Section 110.51 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 110.52 also issued under sec. 186, 68 Stat. 955 (42 U.S.C. 2236). Sections 110.80–110.113 also issued under 5 U.S.C. 552, 554. Sections 110.130–110.135 also issued under 5 U.S.C. 553.

For the purpose of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 110.20–110.29, 110.50, and 110.120–110.129 also issued under secs. 161b. and i., 68 Stat. 948, 949, as amended (42 U.S.C. 2201(b) and (i)); and § 110.53 also issued under sec. 161o., 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. In § 110.2 a definition of "Tritium" is added after "Transport" to read as follows:

§ 110.2 Definitions.

* * * * *

"Tritium" means not only tritium but also includes compounds and mixtures containing tritium in which the ratio of tritium to hydrogen by atoms exceeds one part in 1,000.

* * * * *

3. In § 110.23, paragraphs (a)(2), (a)(3), and (c) are revised to read as follows:

§ 110.23 Export of byproduct material.

(a) * * *

(2) Tritium in any dispersed form (e.g., luminescent light sources, luminescent paint, accelerator targets, calibration standards, labeled compounds) in quantities of 10 curies or less per item. No person may export more than 1,000 curies per shipment or 10,000 curies per year to any one country.

(3) Tritium in luminescent safety devices installed in aircraft.

* * * * *

(c) A general license is issued to any person to export bulk, undispersed tritium in individual shipments of 100 curies or less to any country not listed in § 110.28 or § 110.29. No person may export more than 10,000 curies per year to any one country.

* * * * *

Dated at Bethesda, Maryland, this 22d day of July 1986.

For the Nuclear Regulatory Commission,

Victor Stello, Jr.,

Executive Director for Operations.

[FR Doc. 86–17481 Filed 8–1–86; 8:45 am]

BILLING CODE 7590–01–M

FEDERAL DEPOSIT INSURANCE CORPORATION

12 CFR Part 303

Applications, Requests, Submittals, Delegations of Authority, and Notices of Acquisition of Control; Modification of Cease-and-Desist Orders and Acceptance of Written Agreements

AGENCY: Federal Deposit Insurance Corporation.

ACTION: Final rule.

SUMMARY: The Federal Deposit Insurance Corporation ("FDIC") is amending its regulations to delegate to the FDIC's Director of the Division of Bank Supervision and, where confirmed in writing by the Director, to the Director's delegate(s) authority to modify any cease-and-desist order at the request of the bank or other respondent. Authority is also being delegated to the Board of Review in two instances. First, to accept written agreements in connection with sections 8(a) and 8(b) of the Federal Deposit

Insurance Act and second, to act on any matter which the Director of the Division of Bank Supervision, or the Director's delegate(s) may not wish to act under authority delegated pursuant to § 303.12(c). The changes are expected to allow the FDIC to administer its capital forbearance program efficiently and to provide greater operational flexibility in connection with the acceptance of written agreements relating to sections 8(a) and 8(b) of the Federal Deposit Insurance Act. The amendments would benefit both the FDIC and the banks. First, by allowing the FDIC to more efficiently modify orders issued pursuant to section 8(b) of the Federal Deposit Insurance Act when requested by the bank or other respondent. Second, by allowing the Director of the Division of Bank Supervision, or the Director's delegate(s), to refer any matter to the Board of Review, where action is not mandated under delegated authority and third, written agreements would be more expeditiously accepted in connection with the above-mentioned statutory enforcement actions.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Rita Wiles Ross, Senior Attorney, Legal Division, (202) 898–3743, or G. Michael Dew, Chief, Special Situations Section, Division of Bank Supervision, (202) 898–6770, Federal Deposit Insurance Corporation, 550 17th Street, NW., Washington, DC 20429.

SUPPLEMENTARY INFORMATION: Part 303 of the FDIC regulations, which among other things contains various delegations of authority by the FDIC's Board of Directors, is being amended to delegate to the FDIC Director of the Division of Bank Supervision and, where confirmed in writing by the Director, to the Director's delegate(s) authority to modify any order issued pursuant to section 8(b) of the Federal Deposit Insurance Act at the request of the bank or other respondent. The Board of Directors also considers it appropriate that the delegations of authority to the Board of Review be extended to include the acceptance of any written agreement in connection with sections 8(a) or 8(b) of the Federal Deposit Insurance Act.

The delegations will aid the FDIC in administering the capital forbearance program efficiently by providing broader delegations of authority for the modification of a cease-and-desist order at the request of the bank or other respondent. The delegations will also provide for greater operational flexibility in the acceptance of written agreements in connection with sections 8(a) and 8(b) of the Federal Deposit Insurance Act.

Regulatory Considerations

Because the amendments are procedural in nature and will not alter any rights or obligations of any insured bank, they are being published in final form without opportunity for public comment under authority of 5 U.S.C. 553(b)(A) (Administrative Procedure Act), which exempts from required publication for comment interpretive rules, general statements or policy, and rules of agency practice and procedure. The amendments, which constitute nonsubstantive changes to the FDIC rules of practice and procedure, are being made immediately effective inasmuch as the requirement found in 5 U.S.C. 553(d) that substantive rules be published not less than 30 days prior to their effective date is inapplicable. As these amendments neither alter existing nor create new recordkeeping or reporting requirements, the Paperwork Reduction Act is inapplicable. Finally, the requirements of the Regulatory Flexibility Act are inapplicable as the amendments are not subject to required public comment under the Administrative Procedure Act.

List of Subjects

12 CFR Part 303

Administrative practice and procedure, Authority delegations, Bank deposit insurance, Banks, banking.

For the reasons set out above, Part 303 of Title 12 of the Code of Federal Regulations is amended as set forth below.

PART 303—APPLICATIONS, REQUESTS, SUBMITTALS, DELEGATIONS OF AUTHORITY, AND NOTICES OF ACQUISITION OF CONTROL

1. The authority citation for Part 303 continues to read as follows:

Authority: Secs. 2(5), 2(6), 2(7)(j), 2(8), 2(9 "Seventh" and "Tenth"), 2(18), 2(19), Pub. L. No. 797, 64 Stat. 876, 881, 891, 893 as amended by Pub. L. No. 86–463, 74 Stat. 129; sec. 2, Pub. L. No. 87–827, 76 Stat. 953; Pub. L. No. 88–593, 78 Stat. 940; Pub. L. 89–79, 79 Stat. 244; sec. 1, Pub. L. No. 89–356, 80 Stat. 7; sec. 12(c), Pub. L. No. 89–485, 80 Stat. 242; sec. 3, Pub. L. No. 89–597, 80 Stat. 824; title II, secs. 201, 205, Pub. L. No. 89–695, 80 Stat. 1055; sec. 2(b), Pub. L. No. 90–505, 82 Stat. 856; secs. 6(c)(7), (12), (13), Pub. L. No. 95–369, 92 Stat. 616–620; title III, secs. 306, 309 and title VI, sec. 602, Pub. L. No. 95–630, 92 Stat. 3677, 3683 (12 U.S.C. 1815, 1816, 1817(j), 1818, 1819 "Seventh" and "Tenth", 1828, 1829); title I, sec. 108, Pub. L. No. 90–321, 82 Stat. 150 as amended by title IV, sec. 403, Pub. L. No. 93–495, 88 Stat. 1517 and title VI, sec. 608, Pub. L. No. 96–221, 94 Stat. 171 (15 U.S.C. 1607).

2. Section 303.0 is amended by adding a new paragraph (b)(7) to read as follows:

§ 303.0 Scope and definitions.

* * * * *

(b) * * *

(7) The term "Director's delegate(s)" refers to any Associate Director of the Division of Bank Supervision or, in the event the title of Associate Director becomes obsolete, any official within the Division of comparable authority.

3. Paragraphs (c)(3)(iv), (c)(7) and (c)(12) of § 303.12 are revised to read as follows:

§ 303.12 Delegation of authority to act on enforcement matters.

* * * * *

(c) * * *

(3) * * *

(iv) *Modification of section 8(b) orders.* The authority to modify an order issued pursuant to section 8(b) of the Act at the request of the bank or other respondent is delegated to the Director of the Division of Bank Supervision and, where confirmed in writing by the Director of the Division of Bank Supervision, to the Director's delegate(s).

* * * * *

(7) *Action under delegated authority not mandated.* The Director of the Division of Bank Supervision and the Deputy General Counsel for Regional and Corporate Affairs and/or the Board of Review, may act on any matter on which the regional director and/or regional counsel may not wish to act under authority delegated pursuant to this § 303.12(c) The Board of Review may act on any matter on which the Director of the Division of Bank Supervision, or the Director's delegate(s) may not wish to act under authority delegated pursuant to this § 303.12(c). Any aggrieved party or person may petition the Board of Directors for review of any action taken under authority of this § 303.12(c).

* * * * *

(12) *Acceptance of written agreements.* The Board of Review is hereby delegated authority to accept or enter into on behalf of the FDIC any written agreement with an insured bank, or any director, officer, employee, agent, or other person participating in the conduct of the affairs of such bank, pertaining to any matter which may be addressed by the FDIC pursuant to

sections 8(a) and 8(b) of the Federal Deposit Insurance Act.

* * * * *

By Order of the Board of Directors.

Dated at Washington, DC, this 29th day of July, 1986.

Federal Deposit Insurance Corporation.

Margaret M. Olsen,

Deputy Executive Secretary.

[FR Doc. 86-17476 Filed 8-1-86; 8:45 am]

BILLING CODE 6714-01-M

DEPARTMENT OF COMMERCE

Economic Development Administration

13 CFR Part 310

[Docket No. 60596-6096]

Relocation Assistance and Land Acquisition Policies

AGENCY: Economic Development Administration (EDA), Commerce.

ACTION: Final rule; correction.

SUMMARY: EDA is correcting an error in the amendatory language which appeared in its final rule concerning relocation assistance and land acquisition policies, published in the **Federal Register** July 7, 1986 (51 FR 24516).

FOR FURTHER INFORMATION CONTACT: James F. Marten, Deputy Chief Counsel for Operations and Administration, Economic Development Administration, U.S. Department of Commerce, Herbert C. Hoover Building, 14th Street between Pennsylvania and Constitution Avenues NW., Room 7009, Washington, DC 20230, (202) 377-5441.

SUPPLEMENTARY INFORMATION: At 51 FR 24516, language used to amend EDA's regulation at 13 CFR Part 310 was incorrect. Since Part 310 was removed by publication of a uniform regulation on February 27, 1986 (51 FR 7000) in order for EDA to make changes to its Part 310, it must be added back into the CFR.

In light of this, the following corrections are being made:

1. The words of issuance section which reads: "Accordingly, for the reasons set forth above, 13 CFR Part 310 is amended as follows:" is revised to read: "Accordingly, for the reasons set forth above, 13 CFR Chapter III is amended as follows:"

* * * * *

2. Paragraph 2 which reads:

"2. Part 310 is being amended to refer applicants and recipients (states and political subdivisions of states) to 15 CFR Part 11. Therefore, § 310.1 is revised to read as follows:", is revised to read as follows: "2. Part 310 is being added to refer applicants and recipients (states and political subdivisions of states) to 15 CFR Part 11."

* * * * *

Dated: July 28, 1986.

Orson G. Swindle, III,

Assistant Secretary for Economic Development.

[FR Doc. 86-17257 Filed 8-1-86; 8:45 am]

BILLING CODE 3510-24-M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 86-ANE-29; Amdt. 39-5356]

Airworthiness Directives; Grob Werke GmbH & Co. KG GROB G 109B Motorgliders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) which requires limiting the never exceed speed and provides for the modification of the motorglider after which the speed limitation will no longer be applicable on Grob-Werke GmbH Model GROB G 109B motorgliders. The AD is needed to prevent the possibility of encountering aileron flutter which could result in aileron failure and consequent loss of control of the motorglider.

DATES: Effective—July 31, 1986.

Compliance—As required in the body of the AD.

Incorporation by Reference—Approved by the Director of the Federal Register on July 31, 1986.

ADDRESSES: The technical information and modification parts specified in this AD may be obtained from GROB Systems, Inc., Aircraft Division, I-75 and Airport Drive, Bluffton, Ohio 45817. A copy of the technical notes is contained in the Rules Docket, Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts, 08103.

FOR FURTHER INFORMATION CONTACT: Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B-1040 Brussels, Belgium, Telephone 513.38.30 ext. 2710, or Vito A. Pulera, ANE-172, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791-6220.

SUPPLEMENTARY INFORMATION: During the course of the type certification of the GROB G 109B motorglider in Sweden, it was found that at high speeds combined with very high aileron and/or rudder deflections, aileron flutter may be induced at a certain excitation frequency. Thereupon, the Luftfahrt-Bundesamt (LBA) issued an AD to limit the maximum speed of the aircraft. Subsequently, GROB-WERKE GmbH issued Technical Information No. TM 817-20, dated January 29, 1986, approved by the LBA on March 7, 1986, which requires that the aircraft be modified by installing a rudder damper, additional mass-balance to the ailerons, and stiffening the upper and lower rudder hinge attachment points on the vertical tail.

The LBA issued another AD requiring compliance with the provisions of Technical Information No. TM 817-20 on motorgliders operated under the Federal Republic of Germany registration. Incorporation of TM 817-20 deletes the airspeed limitation requirement. Aileron flutter may cause aileron failure and consequent loss of control of the motorglider.

The FAA relies upon the certification of the LBA, combined with FAA review of pertinent documentation, in finding compliance of these motorgliders with the applicable United States airworthiness requirements, and the airworthiness and conformity of products of this design certificated for operation in the United States.

The FAA has examined the available information related to the issuance of Grob-Werke GmbH Technical Information No. TM 817-20 and the issuance of AD's Nos. 85-218 Grob and 85-218/2 Grob by LBA. Based on the foregoing, the FAA has determined that the condition addressed by the LBA AD's is an unsafe condition that may exist on other products of the same type design certificated for operation in the United States.

Therefore, an AD is being issued to require a speed limitation and provide for modification of the Grob-Werke GmbH Model Grob G 109B motorgliders.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and public procedure hereon are impractical, and good cause exists for making this amendment effective in less than 30 days.

Conclusion

The FAA has determined that this regulation is an emergency regulation that is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation or analysis is not required). A copy of it, when filed, may be obtained by contacting the person identified under the caption **"FOR FURTHER INFORMATION CONTACT".**

List of Subjects in 14 CFR Part 39

Air Transportation, Aircraft, Aviation Safety, Incorporation by Reference.

Adoption of the Amendment

PART 39—[AMENDED]

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration (FAA) amends Part 39 of the Federal Aviation Regulations (FAR) as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421, and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97–449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By adding to § 39.13 the following new airworthiness directive (AD):

GROB–WERKE GmbH: Applies to Model Grob G 109B motorgliders (serial numbers 6200 through 6430 inclusive) certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent the possibility of encountering aileron flutter which could result in the loss of control of the motorglider, accomplish the following:

(a) Within the next 5 hours time-in-service after the effective date of this AD:

(1) Attach a placard on the instrument panel adjacent to the airspeed indicator with the following wording: "NEVER EXCEED AIRSPEED (IAS): 190 km/h (100 kts)."

(2) Place a copy of this AD in the limitation section of the flight manual.

(b) Modification of the motorglider, by installing a rudder damper, additional mass-balance to the ailerons, and stiffening the upper and lower rudder hinge attachment points on the vertical tail, in accordance with the "Instructions" section of GROB-Werke GmbH Technical Information No. TM 817–20 dated Jan. 29, 1986, and GROB-WERKE GmbH Repair Instruction No.'s 817–20/1, 817–20/2, 817–20/3, dated Jan. 29, 1986, deletes the requirement for compliance with Paragraph (a).

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU–100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B–1040 Brussels, Belgium, telephone no. 513.38.30 ext. 2710 or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, telephone no. 516–791–6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office, or the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Grob-Werke GmbH Technical Information No. 817–20, dated Jan. 29, 1986, and Grob-Werke GmbH Repair Instructions Nos. 817–20/1, 817–20/2, 817–20/3, dated Jan. 29, 1986, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Grob Systems Inc., Aircraft Division, I–75 and Airport Drive, Bluffton, Ohio 45817. These documents also may be examined at the Office of Regional Counsel, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, Room 311, Rules Docket 86–ANE–29, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective on July 31, 1986.

Issued in Burlington, Massachusetts, on July 8, 1986.

Clyde DeHart, Jr.,

Acting Director, New England Region.

[FR Doc. 86–17419 Filed 8–1–86; 8:45 am]

BILLING CODE 4910–13–M

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14 CFR Part 39

[Docket No. 86–ANE–30; Amdt. 39–5365]

Airworthiness Directives; Grob Werke GmbH (Burkhart Grob) Models GI03 TWIN II & GI03A TWIN II ACRO Gliders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) which requires visual inspection and replacement of the front cockpit airbrake operating lever on Grob-Werke GmbH Models GI03 TWIN II & GI03A TWIN II ACRO gliders. The AD is needed to prevent failure of the front cockpit airbrake operating lever from cracks or buckling which could result in the loss of airbrake control.

DATES: Effective August 8, 1986.

Compliance Schedule—As prescribed in body of AD.

Incorporation by Reference—Approved by the Director of the Federal Register on August 8, 1986.

ADDRESSES: The technical information and modification parts specified in this AD may be obtained from Grob Systems, Inc., Aircraft Division, I–75 and Airport Drive, Bluffton, Ohio 45817. A copy of the technical notes is contained in Rules Docket Number 86–ANE–30, Office of the Regional Counsel, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts, 08103, and may be examined between the hours of 8:00 am and 4:30 pm, Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Munro Dearing, Brussels Aircraft Certification Office, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B–1040 Brussels, Belgium, Telephone 513.38.30 ext. 2710, or John J. Maher, ANE–172, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791–6221.

SUPPLEMENTARY INFORMATION: Grob-Werke GmbH has determined that buckling or cracks may occur in the front cockpit airbrake operating lever in the area adjacent to the bearing support. The manufacturer has issued Technical Information No. TM 315–29, dated October 1, 1985, which requires a visual inspection and replacement of the front cockpit airbrake operating lever with a reinforced version. The Luftfahrt-Bundesamt (LBA) who has responsibility and authority to maintain the continuing airworthiness of these gliders in the Federal Republic of Germany has issued an AD requiring compliance with the provisions of Technical Information No. TM 315–29 on gliders operated under the Federal Republic of Germany registration. The FAA relies upon the certification of the LBA, combined with FAA review of pertinent documentation, in finding compliance of these gliders with the applicable United States airworthiness requirements, and the airworthiness and conformity of products of this design

certificated for operation in the United States.

The FAA has examined the available information related to the issuance of Grob-Werke GmbH Technical Information No. TM 315–29 and the issuance of AD No. 85–222 Grob by the LBA. Based on the foregoing, the FAA has determined that the condition addressed by Grob Technical Information No. TM 315–29 is an unsafe condition that may exist on other products of the same type design certificated for operation in the United States. Applicability information is provided because not all aircraft serial numbers of the named models are affected by this AD.

Therefore, an AD is being issued to require visual inspection and replacement of the front cockpit airbrake operating lever on Grob-Werke GmbH Models G103 TWIN II and Model G103A TWIN II ACRO gliders. Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and public procedure hereon are impractical, and good cause exists for making this amendment effective in less than 30 days.

Conclusion

The FAA has determined that this regulation is an emergency regulation that is not considered to be major under Executive Order 12291. It is impracticable for the agency to follow the procedures of Order 12291 with respect to this rule since the rule must be issued immediately to correct an unsafe condition in aircraft. It has been further determined that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). If this action is subsequently determined to involve a significant/major regulation, a final regulatory evaluation or analysis, as appropriate, will be prepared and placed in the regulatory docket (otherwise, an evaluation or analysis is not required). A copy of it, when filed, may be obtained by contacting the person identified under the caption **"FOR FURTHER INFORMATION CONTACT".**

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference.

Adoption of the Amendment

PART 39—[AMENDED]

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration (FAA) amends Part 39 of the Federal Aviation Regulations (FAR) as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421, and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97–449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By adding to § 39.13 the following new airworthiness directive (AD):

GROB WERKE GmbH (Burkhart Grob): Applies to Models G103 TWIN II and G103A TWIN II ACRO gliders (serial numbers 3501 through 3715 and 3544–K–1 through 3709–K–45) certificated in any category.

Compliance is required as indicated, unless already accomplished.

To prevent the failure of front cockpit airbrake operating lever, P/N 103B–4270, which could result in the loss of airbrake control, accomplish the following:

(a) Within the next 10 hours time-in-service after the effective date of this AD, and thereafter at intervals not to exceed 10 hours time-in-service after the last inspection, until compliance with Paragraph (c) is accomplished, visually inspect airbrake operating lever for cracks and buckling in accordance with Part 1 of the "Instructions" section of Grob Technical Information No. TM 315–29, dated October 1, 1985.

(b) If a defective lever is found during the inspection required by Paragraph (a) of this AD, before further flight, replace the airbrake operating lever with a reinforced airbrake operating lever in accordance with part 2 of the "Instructions" section of Grob Technical Information No. TM 315–29, dated October 1, 1985, and Grob Repair Instructions No. 315–29, dated October 1, 1985.

(c) Within the next 50 hours time-in-service but no later than 90 days after the effective date of this AD, replace any airbrake operating lever not replaced in accordance with Paragraph (b) of this AD with a reinforced airbrake operating lever in accordance with Part 2 of the "Instructions" section of Grob Technical Information No. TM 315–29, dated October 1, 1985, and Grob Repair "Instructions" No. 315–29, dated October 1, 1985.

Note.—Reinforced airbrake operating lever does not have a new part number. It can be identified as it is 40 mm wide versus 30 mm for the original part.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Brussels Aircraft Certification Office, AEU–100, Europe, Africa, and Middle East Office, FAA, c/o American Embassy, 15 Rue de la Loi B–1040 Brussels, Belgium, Telephone No. 513.38.30 ext. 2710, or the Manager, New York Aircraft Certification Office, Aircraft Certification Division, FAA, New England Region, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581, Telephone No. (516) 791–6680.

Upon submission of substantiating data by an owner or operator through an FAA maintenance inspector, the Manager, Brussels Aircraft Certification Office, or the Manager, New York Aircraft Certification Office, may adjust the compliance time specified in this AD.

Grob Technical Information No. 315–29, dated October 1, 1985, and Grob Repair Instructions No. 315–29, dated October 1, 1985, identified and described in this document, are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to Grob Systems, Inc., Aircraft Division, I–75 and Airport Drive, Bluffton, Ohio 45817. These documents also may be examined at the Office of Regional Counsel, Room 311, Rules Docket 86–ANE–30, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

This amendment becomes effective August 8, 1986.

Issued in Burlington, Massachusetts, on July 14, 1986.

Clyde DeHart, Jr.,

Acting Director, New England Region.

[FR Doc. 86–17420 Filed 8–1–86; 8:45 am]

BILLING CODE 4910–13–M

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14 CFR Part 39

[Docket No. 86–NM–34–AD; Amdt. 39–5379]

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adds a new airworthiness directive (AD) which requires the inspection for corrosion, repair if necessary, and optional modification of the aft pressure bulkhead web and lower chord on certain Boeing Model 747 airplanes. This action is prompted by reports of corrosion in the aft pressure bulkhead web and lower chord that, if not corrected, could result in possible loss of cabin pressure.

EFFECTIVE DATE: September 10, 1986.

ADDRESSES: The applicable service information may be obtained from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. The information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT: Mr. Owen Schrader, Airframe Branch, ANM–120S; telephone (206) 431–2923. Mailing address: FAA, Northwest

Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION: A proposal to amend Part 39 of the Federal Aviation Regulations to include an airworthiness directive to require inspection for corrosion and subsequent repair, if necessary, was published in the **Federal Register** on April 16, 1986 (51 FR 12870). The comment period for the proposal closed on June 2, 1986.

Interested parties have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to all comments received.

Comments were received from the Air Transport Association (ATA) of America on behalf of its members. One member asked if previous bulkhead inspections could be considered as credit. The AD allows credit for inspections that have been previously accomplished using the procedures defined in paragraph A., of the AD. Reinspection intervals will be based on the criteria of paragraph B., or C., whichever is appropriate.

Other ATA members requested changing the compliance time for airplanes with more than 40,000 flight hours from 6 months after the effective date of the AD to 12 months. The FAA does not concur. The severity of the corrosion reported in this area indicates a need to inspect airplanes as soon as practicable.

Other commenters requested that the area of inspection be clarified since the service bulletin defines three separate inspection areas. The FAA concurs that clarification is necessary. The area that requires inspection is the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead. The bonded web lap joints and radial stiffener, and the APU duct pressure pan are not subject to this AD. The AD has been revised accordingly.

One commenter requested raising the repetitive inspection interval of 20,000 flight hours or 7 years, whichever occurs first, to 26,000 flight hours or 7 years to allow the AD to be complied with during its scheduled "D" check which occurs approximately at 5 year intervals. The FAA has determined that since corrosion is primarily calendar-time dependent, rather than flight-hour dependent, the flight-hour references have been deleted from paragraphs B., and C., of the AD.

One commenter suggested adding an inspection of the APU cutout for evidence of fatigue cracking. The FAA does not concur since this would increase the scope of the AD. This subject may be addressed in subsequent rulemaking.

One commenter suggested that the cargo or combi configurations should not be included in this AD, as they do not have an aft lavatory. The FAA does not concur. Severe corrosion of the lower chord of Body Station 2360 bulkhead has been found on a cargo airplane. Condensate can form on the inside surface of the aft pressure bulkhead and remain trapped against the Body Station 2360 bulkhead.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes noted above.

It is estimated that 142 airplanes of U.S. registry will be affected by this AD, that it will take approximately 500 manhours per airplane to accomplish the required actions, and that the average labor cost will be $40 per manhour. Based on these figures, the total cost impact of this AD to U.S. operators is estimated to be $2,840,000 for the initial inspection cycle.

For the reasons discussed above, the FAA has determined that this regulation is not considered to be major under Executive Order 12291 or significant under Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and it is certified under the criteria of the Regulatory Flexibility Act that this rule, will not have a significant economic impact on a substantial number of small entities because few, if any, Boeing Model 747 airplanes are operated by small entities. A final evaluation prepared for this action is contained in the regulatory docket.

List of Subjects in 14 CFR Part 39

Aviation safety, Aircraft.

Adoption of the Amendment

PART 39—[AMENDED]

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends § 39.13 of Part 39 of the Federal Aviation Regulations as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised) Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By adding the following new airworthiness directive:

Boeing: Applies to Model 747 series airplanes listed in Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, certificated in any category.

To detect corrosion in the aft pressure bulkhead web and lower chord accomplish the following unless already accomplished:

A. Perform an inspection for corrosion of the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions, in accordance with the following schedule after the effective date of this AD:

1. Within 6 months for airplanes that have accumulated over 40,000 flight hours on the effective date of this AD;

2. Within 12 months for airplanes that have accumulated 20,000 to 40,000 flight hours on the effective date of this AD; and

3. Within 24 months or upon the accumulation of 20,000 flight hours, whichever occurs later.

B. For airplanes on which the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead have not been modified with the reworked drain hole, application of leveling compound, trimming of insulation blanket, and an application of corrosion preventive compound in accordance with Boeing Service Bulletin 747-53-220, Revision 1, dated October 10, 1983, or later FAA-approved revisions, repeat the inspections required by paragraph A., above, at intervals not to exceed three and one-half years.

C. For airplanes on which the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead have been modified with the reworked drain hole, application of leveling compound, trimming of insulation blanket, and an application of corrosion preventive compound in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions, repeat the inspections required by paragraph A., above, at intervals not to exceed seven years.

D. If any corrosion is found in the aft pressure bulkhead lower web and the lower chord of Body Station 2360 bulkhead, repair before further flight in accordance with Boeing Service Bulletin 747-53-2220, Revision 1, dated October 10, 1983, or later FAA-approved revisions.

E. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

F. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes unpressurized to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service information from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This

document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 10, 1986.

Issued in Seattle, Washington, on July 28, 1986.

Wayne J. Barlow,

Director, Northwest Mountain Region.

[FR Doc. 86-17414 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-13-M

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14 CFR Part 39

[Docket No. 86-NM-58-AD; Amdt. 39-5380]

Airworthiness Directives; Boeing Model 747 Series Airplanes With the Escape Slide Cool Gas Generator Inflation System Installed

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This Amendment adds a new airworthiness directive (AD) which requires inspection and replacement, if necessary, of the self-locking nuts used to secure the escape slide inflation and the manual inflation cable to the cool gas generator trigger mechanism on certain Boeing Model 747 airplanes. This action is prompted by several reports of defective (insufficient locking torque) self-locking nuts. This condition, if not corrected, could prevent automatic inflation or manual inflation depending on which nut is loose. If both nuts are sufficiently loose the slide will not inflate. Failure to automatically inflate may cause a delay in inflation or the assumption that the slide is not usable, thus delaying and jeopardizing successful emergency evacuation of the airplanes.

EFFECTIVE DATE: September 10, 1986.

ADDRESSES: The applicable service information may be obtained from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT: Mr. Roger S. Young, Airframe Branch, ANM-120S; telephone (206) 431-2929. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION: A proposal to amend Part 39 of the Federal Aviation Regulations to include an airworthiness directive to require inspection and replacement, if necessary, of the self-locking nuts used to secure the escape slide inflation cables to the cool gas generator trigger mechanism on certain Boeing Model 747 airplanes was published in the **Federal Register** on May 12, 1986 (51 FR 17364).

The comment period for the proposal, which ended June 30, 1986, afforded interested persons an opportunity to participate in the making of this amendment. Due consideration has been given to all comments received. Only one substantive comment was received.

The manufacturer stated that the Boeing Service Bulletin has been revised (Revision 2 issued May 2, 1986) to reduce the torque value for tightening new or existing self-locking nuts and that the higher torque value listed in Revision 1 of the service bulletin may cause failure of the hollow support tube on which the self-locking nut is installed.

Since the torque value specified in Revision 1 of the service bulletin is not correct, the AD has been revised to require inspection in accordance with Boeing Alert Service Bulletin 747-25A2696, Revision 2. Operators that used the torque value listed in Revision 1 should inspect the escape slide inflation cable support tube to verify there is no damage as stated in Revision 2.

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously noted.

It is estimated that 10 airplanes of U.S. registry will be affected by this AD. Approximately 16 manhours at a cost of $40 per manhour will be required to accomplish the required actions on each airplane. Based on these figures, the total cost impact of this AD to U.S. operators is estimated to $6,400.

For the reasons discussed above, the FAA has determined that this regulation is not considered to be major under Executive Order 12291 or significant under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and it is certified under the criteria of the Regulatory Flexibility Act that this rule will not have a significant economic impact on a substantial number of small entities because few, if any, Boeing Model 747 airplanes are operated by small entities. A copy of a draft regulatory evaluation prepared for this action is contained in the regulatory docket.

List of Subjects in 14 CFR Part 39

Aviation safety, Aircraft.

Adoption of the Amendment

PART 39—[AMENDED]

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends § 39.13 of Part 39 of the Federal Aviation Regulations as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By adding the following new airworthiness directive:

Boeing: Applies to all Model 747 airplanes, certificated in any category, listed in Boeing Alert Service Bulletin 747-25A2696, Revision 1, dated January 31, 1986, that are equipped with the cool gas generator inflation systems. To ensure that the escape slide inflation system operates properly, accomplish the following, unless already accomplished:

A. Within three months after the effective date of this AD, inspect the escape slide inflation system to verify the installation of acceptable self-locking nuts and replace defective nuts, if necessary, in accordance with Boeing Alert Service Bulletin 747-25A2696, Revision 2, dated May 2, 1986, or later FAA-approved revisions.

B. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Seattle Aircraft Certification Office, FAA, Northwest Mountain Region.

C. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive who have not already received the appropriate service document from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 10, 1986.

Issued in Seattle, Washington, on July 28, 1986.

Joseph W. Harrell,

Acting Director, Northwest Mountain Region.

[FR Doc. 86-17415 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-13-M

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14 CFR Part 39

[Docket No. 85-NM-128-AD; Amdt. 39-5381]

Airworthiness Directives; SAAB-Fairchild Corporation Model SF-340A Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment adds a new airworthiness directive (AD) applicable to SAAB-Fairchild airplanes, that requires replacement of the pitch trim synchronizer with an elevator synchronizer in which loading resistors have been added. This action is necessary to prevent uncommanded motion of the right-hand actuator to its end-limit position. Such uncommanded action could result in sudden nose up attitude without warning.

EFFECTIVE DATE: September 10, 1986.

ADDRESSES: The service bulletin specified in this AD may be obtained upon request to SAAB-Fairchild Product Support, S-58188, Linkoping, Sweden. This information may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT: Ms. Judy Golder, Standardization Branch, ANM-113; telephone (206) 431-2909. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION: A proposal to amend Part 39 of the Federal Aviation Regulations to include an airworthiness directive, which requires replacement of the pitch trim synchronizer with an elevator synchronizer on certain SAAB-Fairchild Model SF-340A airplanes, was published in the **Federal Register** on May 14, 1986 (51 FR 8842).

Interested parties have been afforded an opportunity to participate in the making of this amendment. One comment was received which supported the NPRM's intent but recommended that the compliance time be decreased from 60 days after the effective date of the final rule to 30 days. This was based on the commenter's concern for the problem, and the fact that only 15 airplanes and one manhour of work were involved.

The FAA does not agree. The proposed compliance time of 60 days provides an acceptable level of safety. Further, in order to decrease the compliance time from the 60 days specified in the NPRM, it would be necessary to withdraw the NPRM and reissue it for comments. This would delay the effective date.

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

It is estimated that 15 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 manhour per airplane to accomplish the required actions, and that the average labor cost will be $40 per manhour. Based on these figures, the total cost impact of this AD to U.S. operators is estimated to be $600.

For the reasons discussed above, the FAA has determined that this regulation is not considered to be major under Executive Order 12291 or significant under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979) and it is further certified under the criteria of the Regulatory Flexibility Act that this rule will not have a significant economic effect on a substantial number of small entities because of the minimal cost of compliance per airplane ($40). A final evaluation has been prepared for this regulation and has been placed in the docket.

List of Subjects in 14 CFR Part 39

Aviation safety, Aircraft.

Adoption of the Amendment

PART 39—[AMENDED]

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends § 39.13 of Part 39 of the Federal Aviation Regulations as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

§ 39.13 [Amended]

2. By adding the following new airworthiness directive:

Saab-Fairchild: Applies to Model SF-340A airplanes listed in Service Bulletin SF340-27-028, Revision 1, dated August 14, 1985, certificated in any category. Compliance is required within 60 days after the effective date of this AD, unless previously accomplished. To prevent uncommanded pitch trim inputs, accomplish the following:

1. Modify the elevator pitch trim synchronizer in accordance with SAAB-Fairchild Service Bulletin SF340-27-028, Revision 1, dated August 14, 1985.

2. An alternate means of compliance or adjustment of the compliance time, which provides an acceptable level of safety, may be used when approved by the Manager, Standardization Branch, ANM-113, FAA, Northwest Mountain Region.

3. Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate airplanes to a base for the accomplishment of inspections and/or modifications required by this AD.

All persons affected by this directive, who have not already received the appropriate service document from the manufacturer, may obtain copies upon request to SAAB-Fairchild, Product Support, S-58188, Linkoping, Sweden. This document may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

This amendment becomes effective September 10, 1986.

Issued in Seattle, Washington, on July 28, 1986.

Joseph W. Harrell,

Acting Director, Northwest Mountain Region.

[FR Doc. 86-17417 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-13-M

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14 CFR Part 71

[Airspace Docket No. 86-ASO-14]

Designation of Transition Area; Montezuma, GA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment designates the Montezuma, Georgia, transition area to accommodate Instrument Flight Rule (IFR) aeronautical operations at Dr. C.P. Savage, Sr., Airport. This action lowers the base of controlled airspace from 1,200 to 700 feet above the surface in the vicinity of the airport. An instrument approach procedure, based on the proposed Montezuma Nondirectional Radio Beacon (RBN) which is to be located 3.7 miles north of the airport, has been developed to serve the airport

and the controlled airspace is required for protection of IFR aeronautical activities.

EFFECTIVE DATE: 0901 UTC, October 23, 1986.

FOR FURTHER INFORMATION CONTACT: Donald Ross, Airspace Section, Airspace and Procedures Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone: (404) 763–7646.

SUPPLEMENTARY INFORMATION:

History

On Friday, June 13, 1986, the FAA proposed to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) by designating the Montezuma, Georgia, transition area (51 CFR 21569). This action will provide controlled airspace for aircraft executing a new instrument approach procedure to Dr. C.P. Savage, Sr., Airport. The operating status of the airport is changed to IFR. Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments objecting to the proposal were received. This amendment is the same as that proposed in the notice. Section 71.181 of Part 71 of the Federal Aviation Regulations was republished in FAA Handbook 7400.6B dated January 2, 1986.

The Rule

This amendment to Part 71 of the Federal Aviation Regulations designates the Montezuma, Georgia, transition area and lowers the base of controlled airspace in the vicinity of Dr. C.P. Savage, Sr., Airport from 1,200 to 700 feet above the surface.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Aviation safety, Transition area.

Adoption of the Amendment

PART 71—[AMENDED]

Accordingly, pursuant to the authority delegated to me, Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is amended, as follows:

1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. 106(g) (Revised Pub. L. 97–449, January 12, 1983); 14 CFR 11.69.

§ 11.181 [Amended]

2. By amending § 71.181 as follows:

Montezuma, Georgia—[New]

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of Dr. C.P. Savage, Sr., Airport (Lat. 32°18'15" N., Long. 84°00'15" W.); within 4.5 miles each side of the 360° bearing from the Montezuma RBN (Lat. 32°22'02" N., Long. 84°00'27" W.), extending from the 6.5-mile radius area to 11 miles north of the RBN.

Issued in East Point, Georgia, on July 23, 1986.

James L. Wright,

Acting Manager, Air Traffic Division, Southern Region.

[FR Doc. 86–17412 Filed 8–1–86; 8:45 am]

BILLING CODE 4910–13–M

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14 CFR Part 71

[Airspace Docket No. 86–ASO–13]

Designation of Transition Area; Thomaston, GA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment designates the Thomaston, Georgia, transition area to accommodate Instrument Flight Rule (IFR) operations at Reginald Grant Memorial Airport. This action lowers the base of controlled airspace from 1,200 to 700 feet above the surface in the vicinity of the airport. An instrument approach procedure, based on the proposed Reginald Grant Nondirectional Radio Beacon (RBN), has been developed to serve the airport and the controlled airspace is required for IFR aeronautical activities.

EFFECTIVE DATE: 0901 UTC, October 23, 1986.

FOR FURTHER INFORMATION CONTACT: Donald Ross, Supervisor, Airspace Section, Airspace and Procedures Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone: (404) 763–7646.

SUPPLEMENTARY INFORMATION:

History

On Friday, June 13, 1986, the FAA proposed to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) by designating the Thomaston, Georgia, transition area (51 FR 21570). This action provides controlled airspace for aircraft executing a new instrument approach procedure to Reginald Grant Memorial Airport. The operating status of the airport is "changed to IFR. Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments objecting to the proposal were received. This amendment is the same as that proposed in the notice. Section 71.181 of Part 71 of the Federal Aviation Regulations was republished in FAA Handbook 7400.6B dated January 2, 1986.

The Rule

This amendment to Part 71 of the Federal Aviation Regulations designates the Thomaston, Georgia, transition area and lowers the base of controlled airspace in the vicinity of Reginald Grant Memorial Airport from 1,200 to 700 feet above the surface.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Aviation safety, Transition area.

Adoption of the Amendment

PART 71—[AMENDED]

Accordingly, pursuant to the authority delegated to me, Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is amended, as follows:

1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. 106(g)

(Revised Pub. L. 97–449, January 12, 1983); 14 CFR 11.69.

§ 71.181 [Amended]

2. By amending § 71.181 as follows:

Thomaston, GA—[New]

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of Reginald Grant Memorial Airport (Lat. 32°56'20" N., Long. 84°20'35" W.); within three miles each side of the 225° bearing from the Reginald Grant RBN (Lat. 32°56'12" N., Long. 84°20'27" W.), extending from the 6.5-mile radius area to 8.5 miles southwest of the RBN.

Issued in East Point, Georgia, on July 24, 1986.

James L. Wright,

Acting Manager, Air Traffic Division, Southern Region.

[FR Doc. 86–17411 Filed 8–1–86; 8:45 am]

BILLING CODE 4910–13–M

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14 CFR Part 71

[Airspace Docket No. 86–AWP–7]

Amendment to the Fort Huachuca, AZ, Transition Area

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This rule amends the description of the Fort Huachuca, Arizona, transition area. This action will expand the 700 foot transition area west of the Libby AAF/Sierra Vista Municipal Airport (lat. 31°35'00" N., long. 110°20'30" W.) and provide controlled airspace for military radar approaches to Libby AAF.

EFFECTIVE DATE: 0901 UTC, October 23, 1986.

FOR FURTHER INFORMATION CONTACT: Frank T. Torikai, Airspace Specialist, Airspace Branch, AWP–520, Air Traffic Division, Western-Pacific Region, Federal Aviation Administration, at 15000 Aviation Boulevard, Lawndale, California 90260; Telephone (213) 297–1649.

SUPPLEMENTARY INFORMATION: .

History

On May 27, 1986, the FAA proposed to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to amend the Fort Huachuca, Arizona, transition area (51 FR 19068). Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments objecting to the proposal were received. Except for editorial changes, this amendment is the same as that proposed in the notice. Section 71.181 of Part 71 of the Federal Aviation Regulations was republished in Handbook 7400.6B, dated January 2, 1986.

The Rule

This amendment to Part 71 of the Federal Aviation Regulations expands the 700 foot transition area west of the Libby AAF/Sierra Vista Municipal Airport, Arizona. This will provide controlled airspace for military radar approaches to Libby AAF.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule will not have a significant impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Aviation safety, Transition areas.

Adoption of the Amendment

PART 71—[AMENDED]

Accordingly, pursuant to the authority delegated to me, Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is amended as follows:

1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. 106(g) (Revised Pub. L. 97–449, January 12, 1983); 14 CFR 11.69

§ 71.181 [Amended]

2. § 71.181 is amended as follows:

Fort Huachuca, AZ—[Amended]

After "Fort Huachuca, AZ, (lat. 31°35'00" N., long. 110°20'30" W.)" add "within 5 miles each side of the Libby AAF VOR 273° radial, extending from the VOR to 12 miles west of the VOR."

Issued in Los Angeles, California, on July 23, 1986.

Wayne C. Newcomb,

Manager, Air Traffic Division, Western-Pacific Region.

[FR Doc. 86–17413 Filed 8–1–86; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Part 37

[Docket No. RM85–19–000]

Generic Determination of Rate of Return on Common Equity for Public Utilities; Correction

July 30, 1986.

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Notice of update to benchmark rate of return on common equity for Public Utilities; correction.

SUMMARY: The Commission is correcting errors in the Notice of Update to Benchmark Rate of Return on Common Equity for Public Utilities which appeared in the **Federal Register** on July 22, 1986 [51 FR 26237]. The errors appear in Exhibit 3 "Annualized Dividend Yields for the Indicated Quarter for Utilities Retained in the Sample." Since issuing the Notice, the vendor that provides the data used to produce Exhibit 3 has informed the Commission of these errors.

The "advisory" benchmark rate of return of 12.75 percent for the period August through October 1986 is unaffected by these corrections.

DATE: This notice was issued on July 30, 1986.

FOR FURTHER INFORMATION CONTACT: Ronald L. Rattey, Office of Regulatory Analysis, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, (202) 357–8293.

SUPPLEMENTARY INFORMATION: Notice of update to benchmark rate of return on common equity for public utilities; correction.

The Federal Energy Regulatory Commission (Commission) is correcting errors which appeared in its Notice of Update to Benchmark Rate of Return on Common Equity for Public Utilities issued July 16, 1986. 51 FR 26237 (July 22, 1986). The errors appeared in Exhibit 3 "Annualized Dividend Yields for the Indicated Quarter for Utilities Retained in the Sample."

The corrections do not change the "advisory" benchmark rate of return on common equity applicable to rate filings made by electric utilities during the period August through October 1986, which is set at 12.75 percent. The median dividend yield for the second quarter of 1986 is unchanged at 7.16 percent. And, the industry average cost

of common equity estimate based on the dividend yields for the first and second quarters of 1986 remains 12.18 percent.

Since the issuance of the Notice, the vendor that supplies the data used to produce Exhibit 3 has informed the Commission that some of the individual company market price data reflects June 27 rather than June 30 information. The corrections to this data are provided below.

As published, Exhibit 3 reads, in part, as follows:

Ticket symbol	Price, 3rd month of qrtr-high	Annualized dividend yield
UIL	30.875	7.607
UTP	29.875	7.989
WPS	50.375	5.940
WWP	29.875	8.552

These values in Exhibit 3 should be revised to read as follows:

Ticket symbol	Price, 3rd month of qrtr-high	Annualized dividend yield
UIL	31.875	7.565
UTP	30.750	7.949
WPS	50.625	5.935
WWP	30.000	8.546

List of Subjects contained in 18 CFR Part 37

Electric Power Rates, Electric Utilities, Rate of Return.

The following corrections are made in Generic Determination of Rate of Return on Common Equity for Public Utilities published in the **Federal Register** on July 22, 1986 at 51 FR 26237:

1. On page 26,241, sixth column, line 30, change 30.875 to 31.875;

2. On page 26,241, sixth column, line 31, change 29.875 to 30.750;

3. On page 26,241, sixth column, line 34, change 50.375 to 50.625;

4. On page 26,241, sixth column, line 35, change 29.875 to 30.000;

5. On page 26,241, ninth column, line 30, change 7.607 to 7.565;

6. On page 26,241, ninth column, line 31, change 7.989 to 7.949;

7. On page 26,241, ninth column, line 34, change 5.940 to 5.935;

8. On page 26,241, ninth column, line 35, change 8.552 to 8.546.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17483 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

DEPARTMENT OF THE TREASURY

Customs Service

19 CFR Part 6

[T.D. 86-146]

Customs Regulations Amendments Relating to Reporting Requirements for Certain Private Aircraft

AGENCY: Customs Service, Treasury.

ACTION: Final rule.

SUMMARY: This document announces the removal of San Diego International Airport (Lindbergh Field) from the list of airports at which private aircraft arriving from areas south of the U.S. must land for Customs processing. Currently, private aircraft can comply with Customs Regulations by making Lindbergh Field their first landing site after crossing the U.S.-Mexican border.

Lindbergh Field is approximately 15 miles from the border. This distance gives smugglers the opportunity to engage in "touch and go" or air drop smuggling of illegal drugs and contraband. "Touch and go" smuggling involves reporting Lindbergh Fields the first U.S. destination but actually landing somewhere else first, quickly unloading contraband, and continuing on to Lindbergh Field. Air drop smuggling involves flying very low over some point between the border and Lindbergh Field, pushing contraband out of the aircraft to be retrieved on the ground, and continuing on to Lindbergh Field. Additionally, the high volume of air traffic in the Lindbergh Field area makes tracking of individual aircraft very difficult. This is a further impediment to effective drug interdiction in the area.

By removing the designated airport status from Lindbergh Field, aircraft will have to report to one of two other airports, both very close to the U.S.-Mexican border and therefore less likely the targets of smugglers. Lindbergh Field's status as an international airport is not affected.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Dennis Benjamin, Office of Passenger Enforcement and Facilitation, U.S. Customs Service, 1301 Constitution Avenue, NW., Washington, DC 20229 (202-566-5608).

SUPPLEMENTARY INFORMATION:

Background

As part of Customs efforts to combat the problem of drug smuggling by air, in 1975 the Customs Regulations were amended to add a new § 6.14 (19 CFR 6.14), that provides in part that private aircraft arriving in the U.S. via the U.S.-Mexican border must provide a notice of intended arrival with Customs (T.D. 75-201; 40 FR 33203). The section further provides that these private aircraft must land at any one of the designated airports near the U.S.-Mexican border. The purpose of this regulation was to provide Customs with increased enforcement efficiency by providing tight control over air traffic arriving from the direction of countries that are major sources of illegal drugs destined for the U.S.

In our diligence to fight the national epidemic of illegal drugs, Customs has amended § 6.14, Customs Regulations, several times since 1975. Amendments have included extending coverage to private aircraft arriving via the Pacific, Gulf of Mexico, or Atlantic coasts (T.D. 83-192; 48 FR 41381); expanding coverage by modifying the definition of private aircraft (T.D. 84-236; 49 FR 46885); and extending the coverage to include some flights arriving from Puerto Rico and all flights arriving from the U.S. Virgin Islands, increasing from 15 minutes to one hour the minimum time required for notice to be given prior to penetrating U.S. air space, and requiring aircraft seeking exemption from landing requirements to be equipped with functioning transponders (T.D. 86-72; 51 FR 11004).

Customs again finds it necessary to amend § 6.14(g), which lists designated airports at which subject aircraft must land. San Diego Internationl Airport (Lindbergh Field) is on that list. However, Customs has discovered smugglers are taking advantage of Lindbergh Field's location approximately 15 miles from the border by engaging in "touch and go" or air drop smuggling of illegal drugs and contraband. "Touch and go" smuggling involves reporting Lindbergh Field as the first U.S. destination but actually landing somewhere else first, quickly unloading illegal drugs or contraband, and continuing on to Lindbergh Field. Air drop smuggling involves flying very low over some point between the border and Lindbergh Field, pushing illegal drugs or contraband out of the aircraft to be retrieved on the ground, and continuing on to Lindbergh Field.

By removing Lindbergh Field from the list of designated airports in § 6.14(g), aircraft subject to the reporting requirements of § 6.14 will have to land at either Calexico International Airport, Calexico, California, or Brown Field, San Diego, California. Both of these airports are very close to the U.S.-Mexican border and therefore will be unlikely targets of "touch and go" or air

drop smuggling. They are also less congested than Lindbergh Field which makes it easier to track individual aircraft by means of radar devices. These factors will combine to make Customs enforcement activities more effective and more easily manageable in this area of the country.

Brown Field is already the preferred destination of most private aircraft arriving from foreign countries in the San Diego area. In FY 1985, there were 870 private aircraft arrivals from foreign countries at Lindbergh Field compared to 4115 such arrivals at Brown Field and 5262 such arrivals at Calexico International Airport. This revocation in no way affects Lindbergh Field's status as an international airport under § 6.13, Customs Regulations (19 CFR 6.13), and in no way prohibits private aircraft that have crossed the U.S.-Mexican border and complied with § 6.14 by landing at Brown Field or Calexico International Airport, from subsequently landing at Lindbergh Field.

Inapplicability of Public Notice and Delayed Effective Date Requirements

This amendment is being published without an opportunity for public comment or a delayed effective date under the authority of 5 U.S.C. 553(b)(B). The severity of the drug problem in the U.S. is well documented. Customs is always looking for weak links in our drug interdiction efforts and when found, seeks to correct them as expeditiously as possible. The situation surrounding Lindbergh Field is providing a loophole in our enforcement efforts that is allowing illegal drugs and contraband to enter the U.S. It must be stopped as quickly as possible. Therefore, Customs has determined that it would be contrary to the public interest to unnecessarily delay the removal of the designated airport status of Lindbergh Field.

Regulatory Flexibility Act

This document is not subject to the provisions of 5 U.S.C. 603, 604, as added by section 3 of Pub. L. 96-354, the "Regulatory Flexibility Act." That Act does not apply to any regulations such as this for which a notice of proposed rulemaking is not required by the Administrative Procedure Act (5 U.S.C. 551 *et seq.*) or any other statute.

Amendment to the Regulations

List of Subjects in 19 CFR Part 6

Customs duties and inspection, Imports, Air carriers, Aircraft, Airports.

PART 6—AIR COMMERCE REGULATIONS

1. The authority citation for Part 6 continues to read as follows:

Authority: 5 U.S.C. 301; 19 U.S.C. 66, 1202 (Gen. Hdnote 11), 1624; 49 U.S.C. 1474, 1509.

§ 6.14 [Amended]

2. Section 6.14(g) is amended by removing the entry that reads, "San Diego, Calif. . . . San Diego International Airport (Lindbergh Field)" from the list of designated airports.

Drafting Information

The principal author of this document was John E. Doyle, Regulations Control Branch, Office of Regulations and Rulings, U.S. Customs Service. However, personnel from other Customs offices participated in its development.

Alfred R. De Angelus

Acting Commissioner of Customs.

Approved: July 14, 1986.

Francis A. Keating, II,

Assistant Secretary of the Treasury.

[FR Doc. 86-17457 Filed 8-1-86; 8:45 am]

BILLING CODE 4820-02-M

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Housing—Federal Housing Commissioner

24 CFR Parts 207 and 221

[Docket No. R-86-615; FR-2253]

Technical Corrections to Multifamily Housing Mortgage Insurance and Low Cost and Moderate Income Mortgage Insurance Regulations

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

ACTION: Final rule.

SUMMARY: This final rule makes technical revisions in 24 CFR Part 207, multifamily housing mortgage insurance, to correct errors in cross-references, and restores an inadvertently deleted phrase in 24 CFR Part 221, low cost and moderate income mortgage insurance.

EFFECTIVE DATE: September 26, 1986.

FOR FURTHER INFORMATION CONTACT: Mr. James Hamernick, Director, Office of Insured Multifamily Housing Development, Room 6134, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, DC 20410-800. Telephone (202) 755-6500. (This is not a toll-free number.)

SUPPLEMENTARY INFORMATION: On February 8, 1979, the Department published an interim rule which added a new paragraph (b)(3) to 24 CFR 207.258 and redesignated the existing paragraphs (b)(3) and (b)(4) as (b)(4) and (b)(5), respectively. (See 44 FR 8195.) The rule, however, failed to revise § 207.258(b)(4)(iv) and § 207.259(b)(2)(iii) to conform existing cross-references. This final rule makes those revisions.

This rule also replaces several words which were inadvertently deleted from the 1972 codification of 24 CFR 221.761(c), and which have remained missing from the adopted rule in the intervening years. The amendment to § 221.761(c) corrects the section to reflect its content before the error, and serves to clarify the requirements set out in that section.

Notice and public procedure are considered unnecessary because this rule makes only minor technical corrections to HUD rules which do not represent any change in policy or procedure. Accordingly, this document is being published as a final rule.

This final rule is the kind of internal administrative procedure that 24 CFR 50.20 excludes from the requirements in 24 CFR Part 50, the HUD rules implementing section 102(2)(c) of the National Environmental Policy of 1969, 42 U.S.C. 4332.

This rule does not constitute a "major rule" as that term is defined in section 1(b) of Executive Order 12291 on Federal Regulations, issued by the President on February 17, 1981.

Under 5 U.S.C. 605(b) (the Regulatory Flexibility Act), the Undersigned hereby certifies that this rule would not have a significant economic impact on a substantial number of small entities. Since no person's rights or obligations are adversely affected by this rule, it would have no economic impact.

This rule was not listed in the Department's Semiannual Agenda of Regulations published on April 21, 1986 (51 FR 14036) under Executive Order 12291 and the Regulatory Flexibility Act.

List of Subjects

24 CFR Part 207

Mortgage insurance, Rental housing, Mobile home parks.

24 CFR Part 221

Condominiums, Low and moderate income housing, Mortgage insurance, Displaced families, Single family housing, Projects, Cooperatives.

Accordingly, the Department amends § 207.258(b)(4)(iv), § 207.259(b)(2)(iii) and § 221.761(c) as follows:

PART 207—MULTIFAMILY HOUSING MORTGAGE INSURANCE

1. The authority citation for 24 CFR Part 207 continues to read as follows:

Authority: Sections 207 and 211 of the National Housing Act (12 U.S.C. 1713, 1715(b)); section 7(d) of the Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

2. Section 207.258(b)(4)(iv) is revised to read as follows:

§ 207.258 Insurance claim requirements.

* * * * *

(b) * * *

(4) * * *

(iv) All property of the mortgagor held by the mortgagee or to which it is entitled (other than the cash items which are to be retained by the mortgagee) pursuant to paragraph (b)(5) of this section.

* * * * *

3. Section 207.259(b)(2)(iii) is revised to read as follows:

§ 207.259 Insurance benefits.

* * * * *

(b) * * *

(2) * * *

(iii) The sum of the cash items retained by the mortgagee pursuant to § 207.258(b)(5), except the balance of the mortgage loan not advanced to the mortgagor.

* * * * *

PART 221—LOW COST AND MODERATE INCOME MORTGAGE INSURANCE

4. The authority citation for 24 CFR Part 221 continues to read as follows:

Authority: Sections 211 and 221 of the National Housing Act (12 U.S.C. 1715(b), 1715l); section 7(d) of the Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

5. Section 221.761(c) is revised to read as follows:

§ 221.761 Forbearance relief.

* * * * *

(c) If the mortgagor fails to meet the requirements of a forbearance agreement or to cure the default under the mortgage at the expiration of the forbearance period, and such failure continues for a period of 30 days, the mortgagee shall notify the Commissioner of such failure. Within 45 days thereafter, unless a modification or extension of the forbearance agreement has been approved by the Commissioner, the mortgagee shall notify the Commissioner of its election to file an insurance claim and of its decision to either assign the mortgage to the Commissioner or to acquire and convey title to the property to the Commissioner. If the mortgage is assigned to the Commissioner, the special insurance benefits prescribed in § 221.763 shall be applicable.

Dated: July 24, 1986.

Silvio J. DeBartolomeis,

General Deputy Assistant Secretary for Housing-Deputy Federal Housing Commissioner.

[FR Doc. 86-17424 Filed 8-1-86; 8:45 am]

BILLING CODE 4210-27-M

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24 CFR Part 300

[Docket No. N-86 1626; FR-2251]

Government National Mortgage Association; List of GNMA Attorneys-In-Fact

AGENCY: Government National Mortgage Association, HUD.

ACTION: Notice announcing list of attorneys-in-fact.

SUMMARY: This document updates the current list of persons appointed attorneys-in-fact by the Government National Mortgage Association (GNMA). Attorneys-in-fact are authorized to act for GNMA by executing documents in its name in conjunction with servicing GNMA's mortgage purchase programs. These appointments assist GNMA in carrying out its responsibilities under the National Housing Act.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: John Maxim, Associate General Counsel, Insured Housing and Finance, Office of the General Counsel, Department of Housing and Urban Development, 451 Seventh Street SW., Washington, DC 20410. Telephone (202) 755-6274. (This is not a toll-free number.)

SUPPLEMENTARY INFORMATION: The Government National Mortgage Association (GNMA) periodically approves staff members of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corportation (Freddie Mac) to be delegated signatory authority to act in GNMA's behalf as attorneys-in-fact.

On August 12, 1983 (48 FR 36572), GNMA announced that it was removing the list of persons appointed to act from the CFR, changing the procedure of announcing appointments to a notice document, and publishing a complete list of persons currently appointed to act as attorneys-in-fact. The rule removing the list from the CFR was effective on October 11, 1983.

This notice today announces changes to the list of persons authorized to act as attorneys-in-fact. The changes include additions to and deletions from the Federal National Mortgage Association list. To enhace the usability of these notices, the Department has decided to republish the entire list of attorneys-in-fact each time changes are made.

Accordingly, the following lists represent all persons currently appointed as attorneys-in-fact delegated signatory authority to act in GNMA's behalf:

I. Staff members of the Federal National Mortgage Association, a government-sponsored private corporation, appointed attorneys-in-fact.

Name and Region

Leopold E. Abueg, Los Angeles, CA
Charlotte Adelman, Los Angeles, CA
Angelina P. Alleva, Philadelphia, PA
Ellen W. Allison, Atlanta, GA
David P. Antczak, Chicago, IL
Glenn T. Austin, Jr., Atlanta, GA
J. J. Bacchus, Atlanta, GA
Irene S. Baggio, Philadelphia, PA
Darlene Bagley, Atlanta, GA
Anna H. Bender, Chicago, IL
Denise M. Benn, Chicago, IL
Frances E. Bennett, Atlanta, GA
Renee Y. Berryman, Los Angeles, CA
E. N. Biggerstaff, Atlanta, GA
J. C. Billinger, Atlanta, GA
James R. Blakeley, Los Angeles, CA
Ann Blount, Atlanta, GA
W. R. Bowen, Los Angeles, CA
W. James Bradley, Washington, D.C.
Craig J. Bromann, Chicago, IL
Debra Brown, Atlanta, GA
Larry W. Brown, Dallas, TX
Burleigh O. Burshem, Washington, D.C.
Rena L. Busby, Los Angeles, CA
J. L. Busselle, Dallas, TX
David Byrd, Atlanta, GA
Donna M. Cabrera, Los Angeles, CA
John A. Carlisi, Philadelphia, PA
E. P. Carr, Atlanta, GA
James S. Cash, Atlanta, GA
Heinrich F. Charles, Los Angeles, CA
Patricia R. Charrier, Philadelphia, PA
Mary Churchwell, Dallas, TX
John M. Coan, Washington, D.C.
Vincent Coletti, II, Philadelphia, PA
Jean V. Cunniff, Chicago, IL
Edward F. Czubernat, Chicago, IL
Nitin J. Dave, Atlanta, GA
Edward Dodson, Philadelphia, PA
James E. Domenico, Chicago, IL
Lawrence J. Dondero, Jr., Philadelphia, PA
Dennis D. Downey, Dallas, TX
Samuel A. Duca, Philadelphia, PA
Wanda Durham, Atlanta, GA
J. Ellis Dykes, Atlanta, GA
Joseph R. Elred, Philadelphia, PA
J. Randy England, Atlanta, GA
David J. Evans, Atlanta, GA
R. Douglas Ezzell, Atlanta, GA
Leon Fine, Philadelphia, PA
Robert H. Foster, Philadelphia, PA
Jimmy L. Gallahar, Atlanta, GA
Elizabeth A. Garvin, Los Angeles, CA

Hettye D. Gates, Atlanta, GA
Robert R. Glinski, Philadelphia, PA
James D. Grady, Jr., Philadelphia, PA
John J. Hagerty, Philadelphia, PA
Ann B. Hamilton, Philadelphia, PA
Robert E. Haren, Chicago, IL
Charles W. Harvey, Jr., Philadelphia, PA
Ronald W. Harwig, Chicago, IL
John R. Hayes, Chicago, IL
Robert J. Hearn, Philadelphia, PA
B. J. Hendryx, Dallas, TX
C. W. Heptinstall, Los Angeles, CA
J. W. Hester, Jr., Atlanta, GA
R. R. Holst, Los Angeles, CA
Debbie Howard, Dallas, TX
Carmen I. Huertas, Los Angeles, CA
Jeanne Hunter, Atlanta, GA
Robert A. Hunter, Atlanta, GA
Betty M. Iasparro, Dallas, TX
Louise E. Isabel, Chicago, IL
William S. Jones, Dallas, TX
Shelley J. Kauzlaric, Dallas, TX
Jeffrey H. Kay, Philadelphia, PA
Arthurine C. Kent, Los Angeles, CA
Henry Konigsmark, III, Atlanta, GA
William Jackson, Atlanta, GA
Denise Lee, Philadelphia, PA
Robert E. Lis, Philadelphia, PA
Alfredo S. Loyola, Chicago, IL
Robert J. Mahn, Washington, D.C.
Elizabeth Mahoney, Los Angeles, CA
Noel J. Mangan, Chicago, IL
Philip J. McCarthy, III, Philadelphia, PA
Glenda R. McCoy, Los Angeles, CA
Renay A. McKenzie, Chicago, IL
Susan McMahon, Chicago, IL
Doris A. Morrow, Chicago, IL
Charleen N. Munson, Philadelphia, PA
R. A. Nevitt, Chicago, IL
Brenda J. Newbill, Chicago, IL
Philip R. Nichols, Jr., Philadelphia, PA
Willis W. Nixon, Dallas, TX
Robert D. O'Connell, Chicago, IL
B. J. Odom, Atlanta, GA
Zach Oppenheimer, Philadelphia, PA
Bentley C. Palez, Jr., Dallas, TX
Dale L. Pea, Dallas, TX
Norman H. Peterson, Los Angeles, CA
Kathryn M. Phillips, Atlanta, GA
Robert G. Pike, Atlanta, GA
A. Chris Puchalski, Chicago, IL
Clotelia S. Riddell, Los Angeles, CA
Dolphus D. Roberts, Atlanta, GA
Karen A. Runnels, Chicago, IL
Tim J. Ryan, Chicago, IL
E. L. Schreiber, Dallas, TX
Frank L. Scrivano, Dallas, TX
Linda Seibel, Philadelphia, PA
R. L. Shanteau, Atlanta, GA
George Sierra, Dallas, TX
Mary Simpson, Dallas, TX
Sonya Simpson, Dallas, TX
Samuel M. Smith, III, Atlanta, GA
Susan T. Smith, Dallas, TX
Charles G. Sower, Philadelphia, PA
Mary Lou Stellman, Dallas, TX
D. Stricklen, Dallas, TX
Debbie Stricklen, Dallas, TX
T. J. Swanson, Jr., Atlanta, GA
Leta L. Terrell, Dallas, TX
Jimmie L. Thomas, Dallas, TX
William J. Tierney, Chicago, IL
Sandra J. Todd, Atlanta, GA
Carmeleta Turner, Dallas, TX
Ruth C. Turner, Los Angeles, CA
J.H. Van House, Atlanta, GA
Lewis A. Vidmar, Dallas, TX
Mary E. Voigt, Los Angeles, CA
Erlinda C. Weaver, Los Angeles, CA
Edward W. Wendell, Chicago, IL
James H. Whitehead, Atlanta, GA
Sherry L. Williamson, Atlanta, GA
W.E. Yeager, Atlanta, GA
Dick A. Yockey, Los Angeles, CA
Barbara Zwijacz, Chicago, IL

II. Staff members of the Federal Home Loan Mortgage Corporation, created under the laws of the United States, appointed attorneys-in-fact.

Name and Region

William T. Bings, Washington, D.C.
Philip R. Brinkerhoff, Washington, D.C.
Jerry Brooks, Atlanta, GA
Michael Coffey, Dallas, TX
Douglas R. Cottrell, Atlanta, GA
Kenneth Coulter, Los Angeles, CA
George E. Delgado, Arlington, VA
James L. Garrison, Arlington, VA
C. Gordon Gray, Chicago, IL
Ken Halterman, Dallas, TX
Philip N. Harrington, Washington, D.C.
Carl Hillis, Dallas, TX
John Horseman, Sr., Washington, D.C.
Victor H. Indiek, Washington, D.C.
David S. Latimore, Atlanta, GA
Leon L. Linkroum, Los Angeles, CA
John E. Lott, Chicago, IL
Peter R. McNulty, Arlington, VA
J. Michael Materie, Atlanta, GA
Walter P. Moenning, Jr., Chicago, IL
Ronald Morck, Atlanta, GA
Randall M. Nay, Dallas, TX
Jerry C. Nelson, Dallas, TX
Robert K. Ostengaard, Los Angeles, CA
Paul Quinn, Denver, CO
F. Michael Salb, Arlington, VA
Kenneth J. Sandin, Atlanta, GA
Fred Schwartz, Chicago, IL
Stu Strand, Los Angeles, CA
Ronald D. Struck, Washington, D.C.
Melvin L. Taylor, Seattle, WA
William R. Thomas, Jr., Dallas, TX
Glenn Vaupel, Los Angeles, CA
William J. Verant, Los Angeles, CA
Edward Voss, Chicago, IL
Clifford A. Walters, Chicago, IL

Dated: July 24, 1986.

Glenn R. Wilson, Jr.,

President, Government National Mortgage Association.

[FR Doc. 86-17422 Filed 8-1-86; 8:45 am]
BILLING CODE 4210-01-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 161

[CGD 86-049]

New Orleans Vessel Traffic Service

AGENCY: Coast Guard, DOT.

ACTION: Final rule.

SUMMARY: This document amends the New Orleans Vessel Traffic Service regulations to indicate the existence and operation of an informational light located on the Mississippi River at Westwego, New Orleans. This light informs downbound vessel operators whether the control light at Gretna (Gretna Light) is red or green. This information is necessary to improve safety on the waterway.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Mr. Michael Powers, (202) 267-0415.

SUPPLEMENTARY INFORMATION: This final rule amends the New Orleans Vessel Traffic Service (VTS) regulations by adding a note describing the existence and loation of an informational light at Westwego, approximately 101.4 miles above Head of Passes (AHP). This light has been in existence but was inadvertently left out of the final rule establishing the VTS (44 FR 47932; August 16, 1979). The note indicating the existence of the Westwego Light is for information purposes only. This light informs downbound mariners on the Mississippi River of the kind of display (red or green) indicated on the control light at Gretna (Gretna Light), approximately 96.6 miles AHP.

This final rule was not preceded by a notice of proposed rulemaking and is being made effective in less than 30 days after publication in the **Federal Register.** Adding this note to the existing rules merely informs vessel operators that there exists a means of knowing whether a downstream control light, which may be out of their line of sight, is red or green. Therefore, the Coast Guard has determined that notice and public procedure thereon are unnecessary under 5 U.S.C. 553 (b)(3)(B). Because this addition has no substantive effect, good cause exists for making it effective in less than 30 days after publication, under 5 U.S.C. 553 (d).

Drafting Information

The principal persons involved in drafting this final rule are Mr. Michael J. Powers, Project Manager, Office of Navigation, and Mr. Stephen H. Barber, Project Counsel, Office of Chief Counsel.

Regulatory Evaluation

This regulatory change is considered to be non-major under Executive Order 12291 and non-significant under the DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). There is no economic impact by adding this note to existing rules; therefore further evaluation is unnecessary. This note merely provides information as to an additional traffic light that exists within

the New Orleans VTS area to inform vessels of the status of the control light described in the existing regulations. Therefore, the Coast Guard certifies that if will not have a significant economic impact on a substantial number of small entities.

List of Subjects in 33 CFR Part 161

Hazardus materials transportation, Navigation (water), Vessels.

In consideration of the foregoing, Part 161 of Title 33 of the Code of Federal Regulations is amended as follows:

PART 161—[AMENDED]

1. The heading of Part 161 is revised to read "Vessel Traffic Management".

2. The authority citation for Part 161 is revised to read as follows:

Authority: 33 U.S.C. 1231; 49 CFR 1.46(n)(4).

3. By adding a note at the end of paragraph (b)(1) of § 161.402 to read as follows:

§ 161.402 Vessel operation.

* * * * *

(b) * * *

(1) * * *

Note: To provide advance information to downbound vessels whether the control light at Gretna (Gretna Light) is red or green, a traffic light is located at Westwego on the right descending bank, on the river batture at the end of Avenue B, approximately 101.4 miles above Head of Passes.

* * * * *

Dated: July 28, 1986.

J.H. Parent,

Captain, U.S. Coast Guard, Acting Chief, Office of Marine Environment and Systems.

[FR Doc. 86-17464 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-14-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[A-6-FRL-3059-4]

Approval and Promulgation of Implementation Plans; Arkansas; Public Availability of Emission Data

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This notice approves an amendment to the Arkansas Water and Air Pollution Control Act as a revision to the Arkansas State Implementation Plan (SIP). This action is a result of rulemaking on September 26, 1974 (39 FR 34533), in which EPA disapproved SIPs of states which failed to meet the requirements of section 110(a)(2)(F) of the Clean Air Act and of 40 CFR 51.10(e) (public availability of emission data).

The Governor of Arkansas submitted the SIP revision (Arkansas Act 763 of 1985) to EPA on December 16, 1985. Review of the revision indicates that Arkansas has met the criteria of section 110(a)(2)(F) of the Clean Air Act and of 40 CFR 51.10(e) (public availability of emission data).

EFFECTIVE DATE: This action will be effective on October 3, 1986, unless notice is received within 30 days that someone wishes to submit adverse or critical comments.

ADDRESSES: Written comments on this action should be addressed to Thomas Diggs of the EPA Region 6 Air Programs Branch, SIP/NSR Section (address below). Copies of the documents relevant to this action are available for public inspection during normal business hours at the following locations:

U.S. Environmental Protection Agency, Region 6, Air Programs Branch (6T-AN), 1201 Elm Street, Dallas, Texas 75270

Public Information Reference Unit, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460

The Office of the Federal Register, 1100 L Street, NW., Room 8401, Washington, DC

Arkansas Department of Pollution Control and Ecology, Division of Air Pollution Control, 8001 National Drive, Little Rock, Arkansas 72209

FOR FURTHER INFORMATION CONTACT: Bill Deese, Air Programs Branch, EPA Region 6, 1201 Elm Street, Dallas, Texas 75270, telephone (214) 767-9832 or (FTS) 729-9832. Reference Docket File Number AR-86-1.

SUPPLEMENTARY INFORMATION: Section 110(a)(2)(F) of the Clean Air Act requires state plans to provide for the periodic reporting of emission data. The emission data must be made available to the public in a reasonable manner. Most of the state implementation plans originally approved by the Administrator provided public access to emission data. However, many plans contained confidentiality provisions which could cause data to be withheld from the public. Three Circuit Courts [1] in 1973 and 1974 held that the presence of a confidentiality provision in a plan so beclouded the public's right to emission data that the emission disclosure provisions had to be disapproved.

[1] NRDC *et al.* v. EPA, 478 F.2d 875 (1st Cir. 1973), NRDC *et al.* v. EPA, 494 F.2d 519 (2nd Cir. 1974), NRDC *et al.* v. EPA, 489 F.2d 390 (5th Cir. 1974).

EPA, on September 26, 1974 (39 FR 34533), disapproved provisions in state plans whose emission disclosure provisions had not been found to be consistent with Federal requirements. The Arkansas plan was disapproved by adding 40 CFR 52.178(a) and 40 CFR 52.179(a) to the Arkansas plan.

Proposed replacement regulations for states whose plans were disapproved were also published in the September 26, 1974, **Federal Register** (39 FR 34572). No general comments were received on the proposed replacement regulations. These regulations were promulgated on November 28, 1975 (40 FR 55326). The replacement regulation for Arkansas was added by 40 CFR 52.178(b). (See 39 FR 34534 and 39 FR 34572, September 26, 1974, and 40 FR 55326, November 28, 1975, for more information.)

The Arkansas 75th General Assembly passed Act 763 of 1985. Act 763 of 1985 amended section 32-1937 of the Arkansas Water and Air Pollution Control Act to give the State the legal authority to make available to the public all emission data submitted to the State, local agencies, or EPA, which is otherwise obtained by any of those agencies pursuant to the federal Clean Air Act.

The Governor of Arkansas on December 16, 1985, submitted Act 763 of 1985 to Region 6 EPA as a revision to the Arkansas plan. Region 6 EPA has found the SIP revision to satisfy all the requirements of section 110(a)(2)(F) of the Clean Air Act and 40 CFR 52.10(e) (public availability of emission data).

Final Action

By this notice, EPA is approving Arkansas Act 763 of 1985 as meeting the requirements of section 110(a)(2)(F) of the Clean Air Act and of 40 CFR 51.10(e) (public availability of emission data). Accepting Act 763 of 1985 as an amendment to the Arkansas Water and Air Pollution Control Act allays the need for 40 CFR 52.178 and 52.179.

EPA has reviewed this revision to the Arkansas SIP and is approving it as submitted. This action is taken without prior proposal because the change is non-controversial and EPA anticipates no adverse comments on it. The public should be advised that this action will be effective 60 days from the date of this **Federal Register** notice. However, if notice is received within 30 days of publication that someone wishes to submit adverse or critical comments, this action will be withdrawn and a subsequent notice will be published before the effective date. The subsequent notice will withdraw the final action and will begin a new

rulemaking by announcing a proposal of the action and establishing a comment period.

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 3, 1986. This action may not be challenged later in proceedings to enforce its requirements. (See 307(b)(2).)

Under 5 U.S.C. 605(b), I certify that this SIP revision will not have a significant economic impact on a substantial number of small entities. (See 46 FR 8709.)

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

List of Subjects in 40 CFR Part 52

Air pollution control, Ozone, Sulfur oxides, Nitrogen dioxide, Lead, Particulate matter, Carbon monoxide, Hydrocarbons, Incorporation by reference.

Note.—Incorporation by reference of the State Implementation Plan for the State of Arkansas was approved by the Director of the Federal Register on July 1, 1982.

Dated: July 28, 1986.

Lee M. Thomas,

Administrator.

PART 52—[AMENDED]

40 CFR Part 52 is amended as follows:

Subpart E—Arkansas

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401–7642.

2. Section 52.170 is amended by adding paragraph (c)(23) as follows:

§ 52.170 Identification of plan.

* * * * *

(c) * * *

(23) A revision to the Arkansas Plan of Implementation of Air Pollution Control was submitted by the Governor on November 25, 1985.

(i) *Incorporation by reference.* (A) Act 763 of 1985 (public availability of emission data) approved April 3, 1985. Act 763 of 1985 amends section 82–1937 (Industrial secrets confidential—Revealing a misdemeanor) of the Arkansas Water and Air Pollution Control Act.

§ 52.178 [Removed and Reserved]

3. Section 52.178 General requirements is removed and reserved.

§ 52.179 [Removed and Reserved]

4. Section 52.179 Legal authority is removed and reserved.

[FR Doc. 86–17451 Filed 8–1–86; 8:45 am]

BILLING CODE 6560–50–M

40 CFR Part 52

[EPA Docket No. AM063MD, A–3–FRL–3059–1]

Approval and Promulgation of Implementation Plans; Revision to the Maryland State Implementation Plan

AGENCY: Environmental Protection Agency.

ACTION: Final rulemaking.

SUMMARY: The Maryland Air Management Administration (MAMA) has submitted to EPA a revision to the Maryland State Implementation Plan (SIP) in the form of a Secretarial Order (by Consent) for Monarch Manufacturing, Inc. (the Company). The Order allows the Company to comply with interim standards for Volatile Organic Compound (VOC) emissions until source-specific regulations are developed for the Company's types of installations. This Notice summarizes the Order which EPA is approving today.

EFFECTIVE DATE: September 3, 1986.

ADDRESSES: Copies of the SIP revision and the accompanying support documents are available for public inspection during normal business hours at the following locations:

U.S. Environmental Protection Agency, Region III, Air Management Division, 841 Chestnut Building, Philadelphia, PA 19107, Attn: Ms. Patricia S. Gaughan (3AM11)

Maryland Department of Health & Mental Hygiene, Air Management Administration, 201 West Preston Street, Baltimore, MD 21201, Attn: Mr. George P. Ferreri

Public Information Reference Unit, U.S. Environmental Protection Agency, EPA Library, Room 2922, 401 M Street, SW., Washington, DC 20460

The Office of the Federal Register, 1100 L Street, NW., Room 8401, Washington, DC

FOR FURTHER INFORMATION CONTACT: Ms. Jacqueline M. Pine at the EPA Region III address indicated above or by telephoning (215) 597–6552.

SUPPLEMENTARY INFORMATION:

Background

On October 7, 1985 (50 FR 40872) EPA proposed approval of the Maryland SIP revision pertaining to establishing interim standards for the Monarch Manufacturing Company in Belcamp, Maryland. The Company manufactures plastic automobile components for use by the General Motors Corporation. The installations at the plant in Belcamp consist of two spray booths, two adhesive applicator booths, and a plastic welding assembly booth, all of which cause the discharge of VOC emissions. Although this area is designated a nonattainment area for ozone, it is scheduled to attain the ozone standard by 1987. Approval of this SIP revision should not alter the likelihood of attainment of the standard by the scheduled attainment date.

Since the plant is located in a nonattainment area, but will have a potential to emit less than 50 tons per year, it is not subject to Maryland's "New Source Impacting on a Non-Attainment Area" regulations (COMAR 10.18.06.11). Normally, under federal regulations, minor sources would not be required to implement any control technology. However, the Code of Maryland Regulations (COMAR) 10.18.21, Volatile Organic Compounds from Specific Processes does require minor new sources to meet certain RACT requirements. The facilities covered under this SIP revision, however, cannot be categorized within the definition of automobile and light-duty truck coating under this regulation because they do not meet this definition. Therefore, the Company's installations are subject to the non-specific VOC regulation under COMAR 10.18.06.06, which requires installations that discharge in excess of 20 pounds per day to reduce emissions by 85 percent. Two of the Company's installations will exceed the 20 pounds per day limit and the present design does not include the costly control equipment which would be necessary to reduce emissions to the level required by the non-specific regulation. EPA agrees that there are no substitute low VOC adhesives currently available for the adhesive applicator installations.

Generally, adhesives with high VOC content are widely used in a variety of industries including plastic, paper, vinyl, leather and wood applications. The intent of Maryland in developing its VOC regulations was to remove certain source types from the general application of COMAR 10.18.06.06 as it develops source-specific regulations that represent reasonable available control technology (RACT) for the source type. EPA believes that adhesive application is a source type that should have source-specific regulations and that it would be inappropriate, at present, to apply the

general requirement under COMAR 10.18.06.06 to the source. Maryland has decided to establish source-apecific emission standards for adhesive application. A study to determine RACT for this source type and others, based on a complete analysis of the quality of available adhesives, has been completed with final regulations to be developed as soon as practicable. Originally, the final regulations were to have been completed by December 31, 1985, but despite good faith efforts by the State, there has been difficulty in developing effective RACT standards for many types of sources all at once. Maryland anticipates that the regulations will be adopted within approximately six additional months. Until the new regulations become applicable to Monarch under the terms of the Order, the Company is to comply with the interim control technology as specified in that Order.

Description of Interim Control Technology

As mentioned above, minor new sources are subject to RACT under state law and in this case, the interim RACT standard is as follows:

The Company may not cause or allow VOC emissions to exceed 4.1 and 6.2 pounds of VOC per day for the two paint spray booths nor exceed 52.6 and 65.4 pounds of VOC per day for the two adhesive applicator booths. This corresponds with a maximum VOC content of 39 percent for each of the water based acrylic paints used at the facility and 73 and 16 percent, respectively, for the two adhesives that may be used. The plastic welding assembly booth may not exceed the emission limit of 1.4 pounds of VOC per day with a maximum VOC content of 38 percent for methyl ethyl ketone (MEK). The Notice of proposed rulemaking for this matter erred in describing the VOC content at 38 percent for methylene chloride for the plastic welding assembly booth. It should read as stated here in this final notice.

The Company shall maintain records for each day's operation which will include the quantity of each coating and adhesive used, and the estimated emissions for each separate installation. This information will be recorded and maintained for review by the MAMA. Each day on which the maximum VOC content for any coating or adhesive is exceeded, or on which the maximum allowable VOC emission from any installation is exceeded, a separate violation shall take place.

During the interim, the Company shall investigate the quality of the adhesive it uses and make use of adhesives with the lowest known VOC content. The Company shall also continue to investigate new coatings or control methods that may be developed so that emissions are minimized. When final RACT standards for plastic coatings and/or for adhesives are adopted, the Company shall achieve compliance with the new appropriate standards within six months after they become effective. Within these six months and until the company achieves compliance with the new standards, the interim standards shall apply. The new standards, currently in draft form, are intended to be more stringent than these interim limits. If the Company cannot meet the new standards using low VOC coatings or adhesives, the company must install control equipment to meet the new coating and/or adhesive standards. Adoption of the new adhesive RACT standards are anticipated by the end of 1986 with the new plastic coating RACT standards possibly following later. Monarch is expected to comply with the new adhesive standards within six months of their adoption, independent of the adoption of new standards for plastic coatings.

EPA Evaluation

EPA has reviewed this Secretarial Order and finds that the interim emissions limits are acceptable and are not likely to jeopardize attachment of the ozone standard by 1987.

One of the assumptions made in developing the 1980 and the 1987 SIP emissions inventory provided that emissions from new minor sources would be offset by shutdown of other sources that were included in the 1980 baseline. In other words, relative to the total emissions inventory between 1980 and 1987, the production fluctuations of existing sources will balance one another and new minor sources will be balanced by shutdown of existing sources. The State has provided EPA with a list of sources which have shutdown so EPA can affirm that this SIP revision will not interfere with reasonable further progress in Maryland.

The interim standards, expressed as percent VOC by weight, will provide an enforceable reduction in VOC emissions by placing a daily emissions cap of 131 pounds per day for the plant. The total emissions of the plant are 14.14 tons per year with this emission cap. As indicated in the Order, the coating standard was developed with a maximum emission rate in terms of pounds per day that was established using the design capacity of the equipment and is a never-to-be exceeded standard. EPA agrees that the interim RACT requirements will adequately limit emissions from Monarch Manufacturing's operations until the final RACT regulations are imposed on the Company pursuant to their Order. The final RACT regulations for adhesives will be similar to previous source specific regulations developed by the State of Maryland.

Based on our review of this Secretarial Order, EPA is today approving it as a SIP revision. The State of Maryland has certified that, after adequate public notice, a public hearing was held on June 28, 1984 with respect to this SIP revision in Baltimore, Maryland. On August 1, 1984, the Order was submitted to EPA as a SIP revision and on October 7, 1985, (50 FR 40872) EPA proposed approval of the revision. No comments were received during the 30-day comment period ending November 7, 1985.

Conclusion

The Administrator's decision to approve this Order is based on a determination that the SIP revision meets the requirements of section 110(a)(2) of the Clean Air Act and 40 CFR Part 51, Requirements for Preparation, Adoption and Submittal of State Implementation Plans.

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

Under section 307(b)(1) of the Clean Air Act, judicial review of this action is available only by the filing of a petition for review in the United States Court of Appeals for the appropriate circuit within 60 days from publication. Under section 307(b)(2), the requirements which are the subject of today's Notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

List of Subjects in 40 CFR Part 52

Air pollution control, Ozone, Hydrocarbons, Reporting and recordkeeping requirements.

Note.—Incorporation by reference of the State Implementation Plan for the State of Maryland was approved by the Director of the Federal Register on July 1, 1982.

Dated: July 29, 1986.

Lee M. Thomas,

Administrator.

PART 52—[AMENDED]

40 CFR Part 52 is amended as follows:

Supart V—Maryland

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401–7642.

2. Section 52.1070 is amended by adding paragraph (c) (85) as follows:

52.1070 Identification of plan.

* * * * *

(c) * * *

(85) Revisions to the Ozone Attainment Plan were submitted by the Director, Maryland Air Management Administration, on August 1, 1984.

(i) *Incorporation by Reference.* (A) State Secretarial Order for the Monarch Manufacturing Company located in Belcamp, Maryland, allowing interim VOC emission standards to be used by the Company until source-specific regulations are developed by MAMA. The Company shall come into compliance with the source-specific regulations within six months after their adoption. The Secretarial Order was approved on July 23, 1984.

[FR Doc. 86–17448 Filed 8–1–86; 8:45 am]

BILLING CODE 6560–50–M

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40 CFR Part 81

[A–9–FRL–3059–6]

Designation Of Areas For Air Quality Planning Purposes; Arizona; Partial Tucson Area Redesignation for CO

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rulemaking.

SUMMARY: This notice takes final action to approve the State of Arizona request for the redesignation of a part of the Tucson nonattainment area from nonattainment to attainment for carbon monoxide (CO). EPA finds no reason to believe that the National Ambient Air Quality Standards (NAAQS) for CO have been violated in the area being redesignated or that sources in the area contribute to violations in the urban core, being retained as nonattainment. This action not only updates the CO attainment status of the rural parts of Pima County, but also removes the major stationary source construction ban imposed by EPA in the area. Also, no additional Part D requirements need be satisfied in the attainment area. Instead, Part C, Prevention of Significant Deterioration requirements will apply in the redesignated area.

DATE: This action is effective September 3, 1986.

ADDRESSES: The EPA Technical Support Comment/Response Document (October, 1985) is available for public inspection during normal business hours at the following locations:

Arizona Department of Health Services, Division of Environmental Health Services, Bureau of Air Quality Control, 2005 North Central Avenue, Phoenix, AZ 85004

Pima County Health Department, Air Quality Control District, 151 West Congress Street, Tucson, Arizona 85701

Environmental Protection Agency, Region 9, Air Management Division, Technical Evaluation Section, 215 Fremont Street, San Francisco, CA 94105

Environmental Protection Agency, 401 "M" Street, SW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Morris I. Goldberg, Technical Evaluation Section, Air Management Division, EPA, Region 9, telephone: (415) 974–7651 or FTS: 454–7651.

SUPPLEMENTARY INFORMATION:

Background

On March 3, 1978 (43 FR 8970) EPA redesignated Pima County as a nonattainment area for CO. On August 15, 1978 Arizona requested redesignation of the area outside of the Tucson Air Planning Area (TAPA) to attainment for CO. On March 19, 1979 (44 FR 16392) EPA reduced the nonattainment area to the TAPA. On March 4, 1983 Arizona requested redesignation and on November 7, 1983 (48 FR 51160) EPA proposed to redesignate a part of the nonattainment area for CO to the boundaries described below. Five comments were received during the public comment period which ended on December 7, 1983. On June 27, 1984 Arizona requested that EPA temporarily suspend action on the redesignation request. The State requested that EPA continue its redesignation action on October 18, 1985. On January 27, 1986 (51 FR 3335) EPA disapproved the Tucson CO nonattainment area plan because of an inadequate new source review program in the area being redesignated to attainment. A ban on the construction of major stationary sources of CO in the subject redesignation area was imposed effective February 26, 1986.

The boundary of the Tucson CO nonattainment area is revised to include only those townships, as follows:

T. 11–12S, R. 12–E; T. 13–15 S., R. 11–16 E.;
T. 16 S., R. 12–16 E.;
Gila and Salt River Base Line and Meridian;

excluding parts within the Saguaro National Monument and the Coronado National Forest, and excluding parts of T11S, R14E northeast of the TAPA boundary line formed by connecting the coordinates:

Latitude 32°38.5' N, Longitude 111°24.0' W.
Latitude 32°26.5' N, Longitude 110°47.5' W.

The new attainment portions of the State include those parts of the county within the townships as follows:

T. 11–12 S, R. 8–10 E; T. 13–14 S, R. 9–10 E;
T. 5 S., R. 10 E. & 17–18 E.; T. 16 S., R. 10–11 E. & 17–18 E.;
T. 17 S., R. 10–18 E.; T. 18 S., R. 11–18 E.; T. 19 S., R. 12–18 E.;
Gila and Salt River Base Line and Meridian,

and within the boundary formed by connecting the corrdinates in order as follows:

Latitude 32°38.5' N, Longitude 111°24.0' W.
Latitude 32°26.5' N, Longitude 110°47.5' W.
Latitude 32°12.5' N, Longitude 110°32.5' W.
Latitude 31°49.5' N, Longitude 110°25.5' W.
Latitude 31°42.0' N, Longitude 110°50.5' W.
Latitude 31°52.5' N, Longitude 110°12.5' W.
Latitude 32°24.5' N, Longitude 111°29.0' W.
Latitude 32°38.5' N, Longitude 111°24.0' W.

including those portions of the Saguaro National Monument and the Coronado National Forest within the above coordinates.

Public Comment

The Technical Support Comment/Response Document is available at the addresses cited above. All issues raised have been successfully resolved. Five public comments were received. They were from the State, three from citizen's groups and one from industry. In summary, the comments and the responses from the Technical Support Comment/Response Document are as follows:

The State commented that they had found several typographical errors in the description of the area it recommended stay nonattainment. EPA believes that the errors are minor. A revision to the proposal is unnecessary since EPA correctly depicted the boundaries by including only a map, in the EPA Technical Support Document (September, 1983) referenced in the proposal. The State correction increases the size of the nonattainment area from that originally specified by boundaries in the State request.

The Arizona Center for Law in the Public Interest (ACLPI) commented that EPA had ignored: (1) Its criteria for redesignation and (2) its requirements for an inspection and maintenance (I/M) program. The applicable redesignation criteria for areas which may have been included without adequate justification in the original CO nonattainment designation are not as stringent as the criteria for urbanized areas. EPA does not require or expect that CO be monitored outside of U.S. Bureau of the Census defined urbanized areas (the urban core, as defined by the EPA,

Region 9), because, in general, such areas do not contain concentrations of sources sufficient to cause significant ambient CO air quality problems. EPA thus believes that redesignation is appropriate for non-urban areas of low commuter populations containing no stationary CO sources, unless available data indicates that the area does indeed show violations. Redesignation of such areas outside of the urban core should not effect the current control strategy in either area. Thus the redesignation would have no air quality impact.

Comments by ACLPI also suggested that EPA policy for I/M area boundaries required EPA to retain all urbanized areas within the I/M area. However, redesignation has no affect on the I/M boundary and no effect on the CO control strategy in general or I/M in particular. Therefore there is no environmental effect associated with the redesignation. Any modification to the I/M boundary would require a SIP revision, which in turn would require a demonstration of the effect of such a change. EPA has preliminarily determined that emissions from the area to be redesignated have only an insignificant impact on the nonattainment problem in the urban core. However, if a modification to the I/M boundary was predicted to produce a significant adverse impact, the SIP revision would either have to be disapproved or would have to contain additional control measures.

The Southwest Environmental Service (SES) commented in support of comments by the ACLPI and added that areas of expected growth and planned development had been excluded by the State from the revised nonattainment area. No evidence of future violations or future significant impact has been presented. In addition, the Clean Air Act, section 107(d)(1)(A&B), does not authorize EPA to designate or retain areas as nonattainment because of future violations for CO, but only for SO_2 and TSP. See 43 FR 40413 (1978).

The Green Valley Community Coordinating Council, Inc. commented in support of the proposal, indicating that their areas, one of the areas cited by ACLPI and SES, did not have a CO problem and the Council intended to keep it that way.

ASARCO, Inc. commented that EPA should redesignate an area just within the revised nonattainment area border, where one of its sources is located. EPA policy from the decision in *Bethlehem Steel Corp.* V. *USEPA* (No. 82–2608, 7th Cir. Dec. 13, 1983), finding a lack of authority for EPA redesignations without State requests, prevents the agency from processing redesignations requested solely by industry or citizen's groups.

EPA Action

EPA approves the redesignation since the proposed attainment area satisfies EPA policy in accord with section 107 of the Clean Air Act. The ban on the construction of major stationary sources of CO is removed by this action. Also, no additional Part D requirements need be satisfied in the attainment area. Instead, Part C, prevention of Significant Deterioration will apply.

Regulatory Process

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

List of Subjects in 40 CFR Part 81

Air pollution control, National Parks, Wilderness areas.

Dated July 29 1986.

Lee M. Thomas,

Administrator.

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

Subpart C—Section 107 Attainment Status Designations

1. The authority citation for Part 81 continues to read as follows:

Authority: 42 U.S.C. 7401–7642.

2. In § 81.303 the attainment status designation table for carbon monoxide is revised to read as follows:

§ 81.303 Arizona.

ARIZONA—CO

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
Maricopa Association of Governments Urban Planning Area	x	
Tucson Urban Area[1]	x	
Rest of State		x

[1] For a description of the Tucson Urban Area, please see publication date.

* * * * *

[FR Doc. 86–17452 Filed 8–1–86; 8:45 am]

BILLING CODE 6560–50–M

40 CFR Part 81

[A-9-FRL-3059-5]

Designation of Areas for Air Quality Planning Purposes; California; North Central Coast Air Basin Redesignation for Ozone

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This notice takes final action to approve the State of California request for the redesignation of the North Central Coast Air Basin (NCCAB) from nonattainment to attainment for ozone. EPA finds no reason to believe that the National Ambient Air Quality Standards (NAAQS) for ozone have been violated since 1981 in the area being redesignated. This action updates the attainment status of the North Central Coast Air Basin. Also, the area has implemented a control strategy fully approved by EPA and no additional Part D requirements need to be satisfied in the attainment area.

DATES: This action is effective October 3, 1986, unless notice is received within 30 days that someone wishes to submit adverse or critical comments.

ADDRESSES: The EPA Technical Support Document (March 1986) is available for public inspection during normal business hours at the following locations.

Environmental Protection Agency, Region 9, Air Management Division, Technical Evaluation Section, 215 Fremont Street, San Francisco, CA 94105

California Air Resources Board, P.O. Box 2815, Sacramento, CA 95812.

FOR FURTHER INFORMATION CONTACT: Michael Jones, Technical Evaluation Section, Air Management Division, EPA, Region 9, Telephone: (415) 974–7655, FTS 454–7655.

SUPPLEMENTARY INFORMATION:

Background

On March 3, 1978, under paragraph 107(d)(2) of the Clean Air Act, as amended, EPA promulgated attainment status designations for all States (43 FR 8962). In California, EPA designated the NCCAB as nonattainment for ozone. Ambient air quality data from all three member counties of the NCCAB (Monterey, Santa Cruz, and San Benito) triggered the "nonattainment" status pursuant to the CAA revisions of 1977. The original triggering mechanism utilized the federal Oxidant NAAQS of 0.8 ppm. Since that time, the federal

NAAQS for ozone was revised to 0.12 ppm and defined nonattainment by more than three exceedances in any consecutive three-year period.

On January 6, 1986, the ARB requested the NCCAB be redesignated from nonattainment to attainment for ozone. The ARB submitted sufficient data showing that the NAAQS for ozone has been attained for this area.

EPA Actions

The ARB request to redesignate the North Central Coast Air Basin for ozone satisfies EPA's criteria for a redesignation to attainment. There are four years of violation free ozone data and zero expected ozone exceedances (3 year average). In addition, an EPA approved control strategy has been implemented. This includes regulations for cutback asphalt, Stage I vapor recovery, architectural coatings, and the California motor vehicle emission control program.

EPA therefore concurs with the ARB request to redesignate the NCCAB to attainment for ozone.

Direct Final

EPA's approval of the above redesignation in California is being done without prior proposal because the redesignation is not controversial. The public should be advised that this approval action will be effective 60 days from the date this notice is published in the **Federal Register**. However, if notice is received by EPA within 30 days that someone wishes to submit adverse or critical comments, this approval action will be withdrawn and a subsequent notice will be published before the effective date. The subsequent notice will indefinitely postpone the effective date, modify the final action to a proposed action, and establish a comment period.

Regulatory Process

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

Under section 307(b)(1), of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 3, 1986. This action may not be challenged later in proceedings to enforce its requirements (See 307(b)(2)).

Under 5 U.S.C. 605(b), I certify that this action will not have a significant economic impact on a substantial number of small entities [46 FR 8709].

List of Subjects in 40 CFR Part 81

Air pollution control, National Parks, Wilderness areas.

Dated: July 28, 1986.

Lee M. Thomas,

Administrator.

PART 81—[AMENDED]

40 CFR Part 81 is amended as follows:

Subpart C—California Section 107 Attainment Status Designations

1. The authority citation for Part 81 continues to read as follows:

Authority: 42 U.S.C. 7401–7642.

2. In § 81.305 the attainment status designation table for ozone is amended by revising the entry for the "North Central Coast Air Basin" to read as follows:

§ 81.305 California.

* * * * *

CALIFORNIA—OZONE

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
* * * * *		
North Central Air Basin:		
Monterey County		X
San Benito County		X
Santa Cruz County		X
* * * * *		

* * * * *

[FR Doc. 86–17453 Filed 8–1–86; 8:45 am]

BILLING CODE 6560–50–M

40 CFR Part 81

[EPA Docket No. 107PA–22, A–3–FRL–3058–9]

Designation of Areas for Air Quality Planning Purposes Approval of State Implementation Plan Revision and Section 107 Designation for the Commonwealth of Pennsylvania

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: EPA is approving a request from the Commonwealth of Pennsylvania to revise the attainment status designation of seven (7) counties from "Does not meet primary standards" (nonattainment) to "Better than national standards" (attainment) with respect to ozone.

Additionally, EPA will process under a separate rulemaking action a request from the Commonwealth to revise the attainment status designation of twenty-five (25) areas in Pennsylvania with respect to Total Suspended Particulates (TSP) (Docket No. 107PA–20). EPA will also process under a separate rulemaking action a request from the Commonwealth to revise the attainment status designation of the Upper Beaver Valley Air Basin from "Cannot be classified" to "Better than national standards" with respect to sulfur dioxide (SO_2) (Docket No. 107PA–21).

EFFECTIVE DATE: September 3, 1986.

FOR FURTHER INFORMATION CONTACT: Donna Abrams (3AM11) at the EPA, Region III address above or call (215) 597–9134.

ADDRESSES: Copies of the revision and accompanying documents are available during normal business hours at the following offices:

U.S. Environmental Protection Agency, Region III, Air Management Division, 841 Chestnut Building, Eighth Floor, Philadelphia, PA 19107. Attn: Donna Abrams

Commonwealth of Pennsylvania, Department of Environmental Resources, Bureau of Air Quality Control, 200 North 3rd Street, Harrisburg, PA 17120. Attn: Gary Triplett

SUPPLEMENTARY INFORMATION: Under section 107(d) of the Clean Air Act (Act), the EPA Administrator has promulgated the National Ambient Air Quality Standards (NAAQS) attainment status for all areas within each state (see 43 FR 8962 (March, 1978)). These area designations are subject to revision whenever sufficient data become available to warrant a redesignation.

Total Suspended Particulate Matter

The Pennsylvania Department of Environmental Resources (DER) has submitted to the U.S. Environmental Protection Agency (EPA), on July 27, 1984, a request to have the following areas redesignated on a county-by-county basis with respect to Total Suspended Particulates (TSP).

Coplay Borough (Boro), Whitehall Township (Twp.), Northampton Boro, Allen Twp., City of Monessen, Rostraver Twp., Aliquippa Boro, Baden Boro, and Midland Boro redesignated from "Does not meet primary standards" to "Better than national standards."

Pottstown Boro, South Coatesville Boro, City of Lancaster, Manheim Twp., remaining portions of the Lower Beaver Valley Air Basin, Wesleyville Boro and Lawrence Park Twp., redesignated from "Does not meet secondary standards" to "Better than national standards."

West Pottsgrove Twp., Upper Pottsgrove Twp., City of Coatesville, and Doylestown Twp., redesignated from "Cannot be classified" to "Better than national standards."

East Conemaugh Boro, Franklin Boro, Ellwood City Boro, City of Sharon and the City of Farrell redesignated from "Does not meet primary standards" to "Does not meet secondary standards."

On March 11, 1985, EPA proposed approval of the redesignation of these areas and, on August 9, 1985, these redesignations were forwarded to EPA Headquarters for final processing. In September 1985, EPA Headquarters clarified the existing policy on TSP redesignations. In accordance with this clarification, for nonattainment areas without final, fully federally approved TSP SIP revisions, EPA can only grant a redesignation to attainment if certain specific events are demonstrated for each area requested for redesignation. This information has not been provided for the above areas. EPA has requested the necessary additional information from the State. EPA will not take action on the State's TSP redesignation requests until the State responds to our request for additional information.

Sulfur Dioxide

On July 27, 1984, the Pennsylvania Department of Environmental Resources also submitted a request to have the Upper Beaver Valley Air Basin (the following political subdivisions in Lawrence County: Bessemer Boro, Ellport Boro, Ellwood City Boro, Enon Valley Boro, Little Beaver Twp., New Beaver Boro, City of New Castle, North Beaver Twp., Shenango Twp., South New Castle Boro, Taylor Twp., Wampum Boro, and Wayne Twp.) redesignated from "Cannot be classified" to "Better than national standards" for sulfur dioxide (SO_2) on a county-by-county basis.

The only major source of SO_2 in Lawrence County is the Pennsylvania Power Company's West Pittsburgh station. The Pennsylvania Power Company constructed a 750-foot stack in order to reduce the local impact of their emissions at ground level. Under federal regulations, only that portion of the stack height, termed the good engineering practice (GEP) height, can be allowed for use in compliance modeling. EPA determined this height to be 415 feet. The previous stack height (prior to construction of the "tall stack") was 230 feet. Also as part of the construction, Pennsylvania Power Company combined the flue gases from their other existing stacks into this one stack to install an electrostatic precipitator to control the emissions of particulate matter into the environment.

On March 11, 1985, EPA proposed approval of the Commonwealth's request to redesignate the Upper Beaver Valley Air Basin From "Cannot be classified" to "Better than national standards" for SO_2. Subsequently, this redesignation request was processed for final action and forwarded to EPA Headquarters for review on August 9, 1985. Upon reviewing the Commonwealth's request to redesignate this air basin, it was noted that the State has not demonstrated that this SO_2 redesignation action is consistent with the July 8, 1985, final stack height regulations (50 FR 27892).

On December 16, 1981, at 46 FR 61267, EPA approved relaxing SO_2 SIP limits for Pennsylvania Power Company's West Pittsburgh Station. Because the plant merged gas streams to install TSP control equipment when it raised its stack back in the late 1970's, the enhanced plume rise may not be creditable to set the less stringent SO_2 limit under the revised "tall stack" regulations. In order to process this redesignation request, the State must demonstrate that credit for enhanced dispersion due to the merging of the flues is not given in its SIP emission limit.

EPA has requested that the State make the above demonstration and, until this demonstration is made, EPA will not take action on this redesignation request.

Ozone

On July 27, 1984, the Pennsylvania Department of Environmental Resources submitted a request to have the following counties redesignated from "Does not meet primary standards" to "Better than national standards": Bedford, Blair, Cambria, Centre, Clearfield, Indiana, and Somerset.

When considering a redesignation request for ozone, a number of criteria must be considered. The most important is the National Ambient Air Quality Standard (NAAQS) for ozone which is specified in 40 CFR 50.9. The NAAQS for ozone is defined to be violated when the annual average expected number of daily exceedances of the standard (0.12 parts per million (ppm), 1-hour average) is greater than one (1). A daily exceedance occurs when the maximum hourly ozone concentration during a given day exceeds 0.124 ppm ("Guideline for the Interpretation of Ozone Air Quality Standard," EPA–450/4–79–003). The expected number of daily exceedances is calculated from the observed number of exceedances by making the assumption that non-monitored days, which are days with invalid or incomplete data, have the same fraction of daily exceedances as those observed on monitored days (EPA–450/4–79–003).

Specified criteria for ozone redesignation reviews are given in a December 7, 1979, policy memorandum from Richard G. Rhoads, former Director of U.S. EPA's Control Programs Development Division, and an April 21, 1983, policy memorandum from Sheldon Meyers, Director, Office of Air Quality Planning and Standards. These memoranda indicate that the average number of expected exceedances for each monitoring site is to be based on ozone concentrations monitored in the most recent 3 years of data, if 3 years of data are available. In addition, evidence is required of an implemented control strategy which has been approved by EPA. In this case, the state has implemented areawide RACT regulations for Group I and II CTG sources which will remain in effect after the redesignation.

For a non-monitored area, EPA considers its proximity to major precursor source areas (generally major urban areas) and wind directions. Data from areawide ozone-precursor studies in the vicinities of major urban areas, such as St. Louis and Philadelphia, as well as data from rural monitoring sites in Region III, indicate that ozone transport, at significant levels, can occur over considerable distances downwind from urban areas. Based on these studies and data, and in the absence of any monitoring data, counties immediately downwind from major urban areas are generally assumed to be nonattainment.

Given the regional nature of ozone concentrations, as confirmed in the St. Louis and Philadelphia studies, it is reasonable to assume that non-monitored counties adjoining monitored nonattainment areas are, themselves, probable nonattainment areas. The probability of nonattainment is particularly high in those counties which are both immediately downwind of major urban areas and adjoining geographically similar monitored rural nonattainment areas.

Based on EPA's review of 1982–1984 ambient ozone monitoring data for Cambria and Blair Counties and on the proximity of Clearfield, Indiana and Somerset Counties to Cambria County and on the proximity of Bedford and Centre Counties to Blair County, EPA believes that these counties should be redesignated from "Does not meet primary standards" (nonattainment) to

"Better than national standards" (attainment).

EPA originally proposed disapproval for the redesignation of Blair, Bedford, and Centre counties to "unclassifiable/attainment" (50 FR 9694). However, based on its review of comments received from the Commonwealth of Pennsylvania, EPA has changed its position. A discussion of these comments and EPA's views on these comments follows.

Public Comments

In accordance with the redesignation criteria for ozone, on March 11, 1985, EPA proposed approval of four (4) counties with respect to ozone. Additionally, EPA proposed disapproval of the redesignation of three (3) counties in Pennsylvania with respect to ozone (Blair, Bedford, and Centre).

As a result of the notice of proposed rulemaking (50 FR 9694), the Commonwealth submitted comments on the proposed disapproval of the redesignation of Blair County and two (2) of its adjacent counties—Bedford and Centre. The Commonwealth pointed out that they had submitted the air quality data on daylight savings time as opposed to standard time. If the Commonwealth had reported the data on standard time, which is the way the EPA reports data, two (2) of the exceedances out of the four (4) recorded for Blair County would have occurred on the same day. Therefore, these two (2) exceedances should have been considered as one episode. Additionally, these exceedances occurred during the evening hours and, based on our knowledge of ozone formation, these results are anomolous. Hence, Blair County actually did not have more than one (1) exceedance of the ozone NAAOS per year, on the average, over the period 1982–1984 and consequently, should be redesignated attainment for ozone. Bedford and Centre counties were formerly designated nonattainment area because of their proximity to the then nonattainment area, Blair County. Bedford and Centre counties, being rural areas with no monitoring data, now adjacent to an attainment area (Blair County), should also be redesignated attainment for ozone. Therefore, EPA is now taking final approval action on redesignating all seven (7) areas to attainment.

The Commonwealth has agreed, in a letter dated July 30, 1985, to request a nonattainment designation for these counties if, at such time, Blair County is monitored nonattainment for ozone.

40 CFR Part 81 is being revised by amending the chart, in § 81.339, for ozone.

Administrative Procedures

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

Under section 307(b)(1) of the Clean Air Act, judicial review of this action is available only by the filing of a petition for review in the United States Court of Appeals for the appropriate circuit by October 3, 1986. This action may not be challenged later in proceedings to enforce its requirements (*see* section 307(b)(2) of the Act).

List of Subjects in 40 CFR Part 81

Air pollution control, National Parks, Wilderness areas.

Dated: July 28, 1986.

Lee M. Thomas,

Administrator.

PART 81—[AMENDED]

40 CFR Part 81 is amended as follows:

1. The authority citation for Part 81 continues to read as follows:

Authority: 42 U.S.C. 7401–7642.

2. In § 81.339, Pennsylvania, the table entitled "Pennsylvania—Ozone (O_3)," is amended by revising the following counties in entries IV, V and VI to read as follows:

§ 81.339 Pennsylvania.

* * * * *

Pennsylvania—Ozone (O_3)

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
* * * * *		
IV. Central Pennsylvania Intrastate AQCR:		
(A) Bedford County		X
(B) Blair County		X
(C) Cambria County		X
(D) Centre County		X
* * * * *		
(O) Somerset County		X
* * * * *		
V. Southwest Pennsylvania Intrastate AQCR:		
* * * * *		
(G) Indiana County		X
* * * * *		
VI. Northwest Pennsylvania Interstate AQCR:		
* * * * *		
(C) Clearfield County		X
* * * * *		

[FR Doc. 86–17449 Filed 8–1–86; 8:45 am]

BILLING CODE 6560-50-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Part 405 and 482

[BERC-519-CN]

Medicare and Medicaid Programs; Conditions of Participation for Hospitals; Corrections

AGENCY: Health Care Financing Administration (HCFA), HHS.

ACTION: Correction of final rule.

SUMMARY: This document corrects technical errors that appeared in the final rule published in the **Federal Register** on June 17, 1986 (51 FR 22010) on conditions of participation for hospitals under the Medicare and Medicaid programs.

FOR FURTHER INFORMATION CONTACT: Stanley Rosenfeld, (301) 594–5675.

In FR Doc. 86–13171 beginning on page 22010 in the issue of June 17, 1986, the following changes are made to correct technical errors and to conform legal citations and cross-references to redesignated sections of the law or regulations:

A. On page 22040

1. The heading, "§§ 405.1501 and 405.1502 [Amended]" is changed to read "§§ 405.1501, 405.1502, and 405.1505 [Amended]".

2. Under the heading "§ 405.1501 and 405.1502 [Amended]", in lines 6 and 9, "and" is changed to "or".

3. Under the heading "§ 405.1901 [Amended]", in line 8, "481" is changed to "491".

B. On page 22041

Under the heading "§ 405.1913 [Amended']', in lines 3 and 4, "§ 405.1137(a)" is changed to "§ 405.1137(d)".

C. On page 22042

1. In the authority citation following the table of contents for part 482, in line 1, "1814(a)(7)" is changed to "1814(a)(6)"; in line 3, "1902(a)(30)" is inserted after "1886," and before "and"; in line 4, "1395f(a)(7)" is changed to "1395f(a)(6)"; and in line 6, "1396a(a)(30)," is inserted after "1395ww," and before "and".

2. Under § 482.12(a)(1), in line 3, "partitioners" is changed to "practitioners".

D. On page 22045

Under § 482.25(b)(9), in line 3, "pharmaceutical" is changed to "pharmaceuticals".

E. On page 22046

1. Under § 482.26(b)(1), in line 6, "or" is changed to "of".

2. Under § 482.27(a)(3)(iii)(A), in lines 2 and 3, "American Board of Dermatology or American Board of Pathology" is changed to "American Board of Dermatology, the American Osteopathic Board of Dermatology, the American Board of Pathology, or the American Osteopathic Board of Pathology". (The osteopathic boards were inadvertently omitted in regulation text. See explanation in preamble of document on page 22023.)

F. On page 22050.

1. Under § 482.57(b)(2), line 6, a comma is added after "management".

2. Under § 482.60(a), line 3, "physician" is changed to "doctor of medicine or osteopathy". (This is a conforming change inadvertently omitted in the regulations text. See page 22012 or preamble to document for discussion.)

3. Under § 482.61(a)(4), line 6, "contracts" is changed to "contacts".

G. On page 22051

1. Under § 482.62(b)(2), line 5, the word "(physician)" is removed. (This is a conforming change inadvertently omitted in the regulation text. See page 22012 of preamble to document for discussion).

2. Under § 482.62(g)(1), line 1, "to" is inserted after the word "appropriate".

3. Under § 482.66 introductory text, line 6, "§ 405.120" is changed to "§ 409.30".

Dated: July 25, 1986.

Wallace O. Keene,

Acting Deputy Assistant Secretary for Management Analysis and Systems.

[FR Doc. 86-17471 Filed 8-1-86; 8:45 am]

BILLING CODE 4120-01-M

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

48 CFR Parts 1801, 1804-1807, 1809, 1813-1815, 1819, 1825, 1827, 1832, 1836, 1837, 1839, 1842, 1845, 1847, 1851, 1852, and 1853

[NASA FAR Supplement Directive 85-5]

Miscellaneous Changes to NASA FAR Supplement

AGENCY: Office of Procurement, Procurement Policy Division, NASA.

ACTION: Final rule.

SUMMARY: This document amends the NASA Federal Acquisition Regulation Supplement (NFS) to reflect a number of miscellaneous changes implementing higher level issuances or dealing with NASA internal or administrative matters, including physical consolidation of long-standing regulations.

EFFECTIVIE DATE: August 1, 1986.

FOR FURTHER INFORMATION CONTACT: W.A. Greene, Procurement Policy Division (Code HP), Office of Procurement, NASA Headquarters, Washington, DC 20546, Telephone: (202) 453-2119.

SUPPLEMENTARY INFORMATION:

Background

The major changes involve: the numbering system for the NASA FAR Supplement; procedures for selecting and appointing contracting officers; a discussion of contract effective dates; assignment of responsibility for internal reports; authorization of simplified closeout for small purchases; use of class justfications; identification of additional sources for locating potential contractors; implementation of FAR requirements for obtaining information on ordering economic quantities; delegations of authority related to qualified products; a $300 limitation on use of imprest funds; implementation of the FAR contract order of precedence change; clarification of a current solicitation requirement regarding contract property; a discussion of the FAR requirements for synopsizing unsolicited proposals; reiteration of long-standing NASA policy on use of Source Evaluation Board procedures; procedures for duty-free entry of space articles; clarification of the applicability of patent clauses to domestic contractors and specification of invention and reporting rights for foreign contracting; consolidation and restatement of existing guidance and policy on disputes under contracts awarded prior to March 1979 and public inspection of files; information to be included by NASA in the register of ocean shipments; and purchase of airline tickets by certain contractors at vendors other than SATO's.

Impact

The Director, Office of Management and Budget (OMB), by memorandum dated December 14, 1984, exempted certain agency procurement regulations from Executive Order 12291. All regulations in NFSD 85-5 fall in the exempted category. These regulations deal with internal NASA policies and procedures. Therefore, NASA certifies that this regulation will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). The regulations impose no burdens on the public within the ambit of the Paperwork Reduction Work Act, as implemented at 5 CFR 1320.

List of Subjects in 48 CFR Parts 1801, 1804-1807, 1809, 1813-1815, 1819, 1825, 1827, 1832, 1836, 1837, 1839, 1842, 1845, 1847, 1851, 1852, and 1853

Government procurement.

S. J. Evans,

Assistant Administrator for Procurement.

1. The authority citation for 48 CFR Parts 1801, 1804 through 1807, 1809, 1813 through 1815, 1819, 1825, 1827, 1832, 1836, 1837, 1839, 1842, 1845, 1847, 1851, 1852, and 1853 continues to read as follows:

Authority: 42 U.S.C. 2473(c)(1).

PART 1801—FEDERAL ACQUISITION REGULATIONS SYSTEM

2. The heading for Part 1801 is revised to read as set forth above.

3. Subpart 1801.1 is amended by revising 1801.104-370 to read as follows:

1801.104-370 Dissemination of this Regulation, revisions and procurement notices.

(a) The NASA FAR Supplement NASA FAR Supplement Directives (NFSD's) and Procurement Notices (PN's) (see 1801.270), will be distributed directly to NASA Headquarters and to installation distribution points. The number of copies of the regulations, and revisions thereto, will be distributed on the basis of the requirments furnished by each Headquarters office and NASA field installation to the Office of Procurement, NASA Headquarters (Code HP). Material which revises this Regulation will be published in the **Federal Register**, as required by statute.

(b) Heads of field installations will ensure that copies of the NASA FAR Supplement, revisions thereto, and PN's are promptly distributed to all interested activities and individuals within their installation. Code HP is responsible for distribution within Headquarters and for monitoring bulk distribution to installations.

(c) Subscriptions to the NASA FAR Supplement, including applicable NFSD's, may be purchased by private concerns and individuals from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

4. Subpart 1801.2 is amended as follows:

a. Section 1801.270–2 is amended by revising paragraph (a) and adding paragraph (c).

1801.270–2 Procurement notices.

(a) This Regulation will also be amended by issuance of Procurement Notices (PN's) when it is necessary or advisable to—

(1) Promulgate as rapidly as possible selected material revising this Regulation, in a general or narrative manner, in advance of a specific page replacement type revision to this Regulation, or

(2) When the policy and/or procedure is expected to be effective for a period of 1 year or less.

* * * * *

(c) Material which is unsuitable for insertion in this Regulation will be promulgated by means other than Procurement Notices.

b. Section 1801.270–4 is revised.

1801.270–4 Numbering.

(a) Effective January 1, 1986, NASA FAR Supplement Directives and Procurement Notices are numbered in the same manner as the FAR, i.e., consecutively beginning with number 1 prefixed by the last two digits of calendar year of issuance of the current edition of the NASA FAR Supplement.

(b) Prior to January 1, 1986, the following NFSD's and PN's were issued:

1984 NFSD 84–1 through 84–3
PN 84–1 through 84–15
1985 NFSD 85–1 through 85–4
PN 85–1 through 85–9

Although in calendar year 1986 the NFS is a 1984 edition, the first NFSD is 85–5 and the first PN is 85–10. The current consecutive numbering and the "85" prefix will be maintained until the next NFS edition is published. Full compliance with paragraph (a) of this section will be achieved at that time.

1801.301 [Amended]

5. Section 1801.301 is amended by removing the comma after the word "otherwise".

1801.405 [Amended]

6. Section 1801.405 is amended by revising the reference to "FAR 1.104(b)" to read "FAR 1.405(b)."

Subpart 1801.5—[Removed]

7. Subpart 1801.5 is removed.

8. Subpart 1801.6 is amended by removing 1801.603–1, by adding 1801.603–2 and 1801.603–3, by revising 1801.603–4, and by adding 1801.670 to read as follows:

1801.603–1 [Removed]

1801.603–2 Selection.

(a) *Policy.* The objective of issuing contracting officer Certificates of Appointment, SF Form 1402, is to ensure that only those officials who are fully qualified to obligate the Government for the expenditure of public funds for the procurement of supplies and/or services are appointed as contracting officers when an organizational need occurs. Only GS–1105 and GS/GM–1102 personnel shall be appointed as contracting officers.

(b) *Appointment levels.* There are three levels of appointment authority as follows; the appropriate appointment level shall be specified on the SF 1402 upon issuance:

(1) *Basic level.* Applies to personnel in the GS–1102 or GS–1105 series only who have signature authority for small purchases, orders placed under Federal Supply Schedule contracts, other mandatory sources, or blanket purchase agreements.

(2) *Intermediate level.* Applies to those in the GS–1102 series only who have been delegated the authority to execute contracts and contract modifications for up to a maximum of $500,000.

(3) *Senior level.* Applies to all personnel in the GS–1102 series only who have been delegated contracting authority to execute contracts and contract modifications which exceed $500,000.

(c) *Organizational need determination.* NASA contracting officers shall be appointed only in those instances in which a valid organizational need can be demonstrated. Organizational factors to be considered in assessing the need for a contracting officer appointment include volume of actions, complexity of work, and organizational structure.

(d) *Selection procedure.*

(1) Once the organizational need is determined, the supervisor will nominate a contracting officer candidate. At the request of the supervisor, the candidate shall prepare a qualification statement (or SF 171) containing the following information:

(i) Name;

(ii) Title, series, grade;

(iii) Office;

(iv) Relevant experience, beginning with current position to a total of four relevant positions, including for each position—

(A) Employer;

(B) Dates employed;

(C) Title of position;

(D) Kind of business/organization; and

(E) Description of work.

(v) Other relevant special qualifications, certifications or skills;

(vi) Relevant honors, awards, or fellowships received;

(vii) Education, including—

(A) Highest level completed;

(B) High school name, dates attended, and diploma received; and

(C) College or university name, dates attended, degree(s) received; chief undergraduate college subjects; number of credits (show whether semester or quarter hours) completed; major field or study at highest level of college work.

(viii) Procurement-related training, including—

(A) Name of course;

(B) Name of school; and

(C) Dates attended.

(2) The supervisor will review the qualification statement to determine the candidate's ability to perform the functions required to meet the organizational need. The supervisor will then complete a Request for Appointment of a Contracting Officer, using the format shown below, justifying the validity of the organizational need and verifying the contracting officer candidate's qualifications. This document will be signed by the candidate's supervisor and submitted through appropriate organizational channels to the appointing authority (see NMI 5101.24). If additional information is required by the appointing authority, the application will be returned with a request for further explanation or supporting data.

Format

Request for Appointment of a Contracting Officer

The following findings and determinations are made pursuant to applicable laws and regulations:

1. There is a clear and convincing need to appoint a contracting officer with the ability to perform at the _____ (basic, intermediate, or senior) contracting officer warrant level for the following reasons:

2. The contracting officer candidate is:

_____

(Name, Title, Series, and Grade)

3. The contracting officer candidate will occupy the organizational level described below:

_____

(Office/Branch/Division and Location

4. The candidate's qualifications statement is enclosed. It was found that (insert the appropriate statement)

—The candidate's experience and training meet the established qualification standards.

—This candidate does not meet the minimum qualifications in _____ (experience and/or training as indicated in the justification); therefore, an interim appointment for the period of _____ is

requested. These experience and/or training needs will be identified in the candidate's individual development plan and must be completed by _____.

5. The candidate's current conflict-of-interest disclosure statement is on file in the appropriate personnel office or is attached.

6. In addition to the NASA FAR Supplement, laws, Executive Orders, NASA Management Instructions, and other applicable regulations, the following additional warrant limitations are imposed:

a. Dollar Threshold: _____

b. Other Limitations: _____

Supervisor: _____

(Signature of Supervisor of the Candidate)

(Date) (Typed Name)

(Procurement Office) (Title)

APPROVED:

(Appointing Authority) (Date)

(3) If the appointing authority approves the Request for Appointment of a Contracting Officer, the appointing authority shall issue an SF 1402 Certificate of Appointment in accordance with 1801.603–3. A copy of the SF 1402, the Request for Appointment of a Contracting Officer, and the qualification statement shall be maintained for each contracting officer in a central location in the center procurement office during the period of time the SF 1402 is effective and for three years after its termination or the individual has left the procurement office's employ. A copy of each SF 1402 issued shall be provided to NASA Headquarters, Office of Procurement, Code HM. Each center shall prepare and maintain an up-to-date listing, by name and position, of all the installation's contracting officers and the limitations imposed on them in their warrants. A copy of this listing shall be provided annually to NASA Headquarters, Office of Procurement, Code HM.

(e) *Required qualifications.*

(1) The following are the experience, education, and training requirements needed to qualify for each of the three contracting officer appointment authority levels. Appointing authorities can establish additional qualifications, as appropriate. For example, additional qualifications may be established for those authorized to sign incentive and award-fee actions.

(i) *Experience.*—(A) *Basic level:* One year of current experience in Government or commercial procurement, including six months experience in small purchase.

(B) *Intermediate level:* Two years of current, progressively complex and responsible procurement and/or staff experience in Government or commercial procurement.

(C) *Senior level:* Four years of current, progressively complex and responsible procurement and/or staff experience in Government or commercial procurement.

(ii) *Education.* (preferred, not mandatory).

(A) *Basic level:* A high school diploma or equivalent.

(B) *Intermediate and Senior levels:* A bachelor's degree from an accredited college or university which included or was supplemented by at least 24 semester hours in a field of study directly related to procurement, such as business administration, contract law, accounting, Government management, industrial purchasing, or material management.

(iii) *Training.* Acceptable formal training courses covering the subject matter listed below must be satisfactorily completed before a candidate may be nominated for a contracting officer appointment. Approved equivalency tests may be used as substitutes for these formal training requirements.

(A) *Basic level:* 40 hours of formal training covering the application of fundamental principles, policies, procedures, and practices in procurement.

(B) *Intermediate level:* 80 hours of formal training covering the functional knowledge of procurement law, policies, procedures, and methods, including as a minimum Government contract law, procurement by negotiation, procurement by sealed bidding, contract administration, and cost and price analysis.

(C) *Senior level:* 120 hours of formal training including analysis of procurement methods and techniques to enable an individual to effectively manage contractual relationships. The general topics described above also apply to the senior level.

(2) A two-year associate's degree in a procurement related field, such as business administration or accounting, may be substituted for six months of procurement experience. A four year undergraduate program degree in a procurement-related field from an accredited college or university may be substituted for procurement experience at the rate of 12 semester credit hours for three months of procurement experience. One year of concentrated experience in an advanced procurement subject area beyond the two-year minimum for the intermediate level qualifications and the four year minimum for senior level qualifications may be substituted for 24 classroom hours for formal training in procurement. The maximum credit for the total additional years of experience in separate concentrated procurement subject areas is 96 classroom hours.

(f) *Interim appointments.* Personnel shall not ordinarily be appointed as contracting officers if they do not meet the applicable qualifications prescribed in this subsection. If it is necessary to appoint a contracting officer who does not fully meet the qualifications, an interim appointment may be granted. The appointing authority shall require as a condition of the interim appointment that all training or experience requirements will be met within a reasonable period of time. Failure to successfully complete the training requirements within this time frame will result in termination of the appointment or issuance of another interim warrant, whichever is deemed necessary by the appointing authority. Such actions must be fully documented.

(g) *Condition of appointment.* As a condition of continuing appointment, all contracting officers shall be required to satisfactorily complete a procurement-related Government, commercial, or academic course/seminar at least once every five years. This training will preferably be in an area closely related to that in which the contracting officer is assigned.

(h) *Changes to contracting officer appointments.* Changes, either increasing or decreasing the warrant limitations of a contracting officer, shall be made solely at the discretion of the appointing authority. When an appointing authority determines to make such changes, a new SF 1402 Certificate of Appointment shall be issued and the existing warrant shall be officially terminated.

1801.603–3 Appointment.

(a) The Standard Form 1402 shall be construed as authorization of designated personnel to exercise contracting officer authority in accordance with the FAR. In addition, the Standard Form 1402 shall be construed as authorization of designated personnel to exercise contracting officer authority in accordance with the NASA FAR Supplement and the NASA Procurement Regulation. The limitations section of the Standard Form 1402 shall, immediately after the word "following," state: ". . . the limitations contained in the NASA FAR Supplement and the limitations contained in the NASA Procurement Regulation."

(b) If the appointing official chooses to restrict a contracting officer from exercising authority under the NASA Procurement Regulation, the limitations section of SF 1402 shall, immediately

after the word "following," state: ". . . the limitations contained in the NASA FAR Supplement. This Certificate of Appointment does not authorize the appointee to exercise contracting officer authority under the NASA Procurement Regulation."

1801.603-4 Termination.

The appointment of a contracting officer may be revoked at any time by the appointing authority. Contracting officers whose appointments are terminated shall be given a written notice stating the reasons for and the effective date of the termination.

1801.670 Delegation of procurement responsibilities.

(a) Non-GS/GM-1102 or -1105 personnel shall only be delegated procurement responsibilities by a warranted contracting officer (see 1801.603) and only in accordance with the guidelines in this section. Personnel who are not in the GS/GM-1102 or -1105 job series shall not be issued formal contracting officer warrants (SF Forms 1402). Procurement responsibilities, as ordering officers or as contracting officer representatives, shall be delegated to such personnel by a warranted contracting officer in a written letter of delegation. Limitations shall be clearly set forth in the delegation letter. Authority to sign contracts, modifications, or orders in excess of the small purchase limitation shall not be delegated.

(b) Nonprocurement personnel who are delegated procurement responsibilities shall be required to have the training, experience, and education requirements necessary for the responsibilities assigned. If responsibility is to be delegated for making small purchases, the training, education, and experience for the Basic-level contracting officer warrant shall be required. Variations from these procedures will require a deviation in accordance with Subpart 1801.4.

PART 1804—ADMINISTRATIVE MATTERS

9. Subpart 1804.1 is amended by adding 1804.170 to read as follows:

1804.170 Contract effective date.

(a) The contract effective date is defined as the date agreed upon by the contracting parties for the commencement of the period of performance under the contract. The effective date shall be on or after the date on which the contract becomes legally binding. Generally, a contract becomes legally binding on the date that the document, signed by both parties, is received by the offeror, unless, by the terms of the contract, it does not become binding until some subsequent condition is met, e.g., approval by higher authority (FAR 52.204-1) or availability of funds (FAR 52.232-18). The effective date should allow for adequate time for the actual receipt of the written acceptance by the offeror or its agent, with any doubt being resolved by the effective date being after the contract becomes legally binding. In no case will the effective date precede the signature date of the contracting officer or the designated higher approval authority.

(b) Costs incurred before the effective date of the contract as defined in paragraph (a) above are unallowable unless such costs qualify as precontract costs (see FAR 31.205-32) and the clause prescribed at 1831.170 is used.

10. Subpart 1804.6 is amended as set forth below:

a. Section 1804.601 is added to read as follows:

1804.601 Record requirements.

The Headquarters Procurement Management Division (Code HM) is responsible for developing the computer file, specified at FAR 4.601, through monthly submission of Individual Procurement Action Reports (NASA Form 507) and for subsequent transmittal of the required data to the Federal Procurement Data System (FPDS).

b. In 1804.671-4, paragraph (w), the word "Service" is revised to read "Schedule"; in paragraph (ii), the citation "(see 51.602)." is revised to read "(see FAR 4.804-4)."; and paragraphs (pp), (rr), (ss), and (tt) are revised to read as follows:

1804.671-4 Preparation of Individual Procurement Action Reports (NASA Form 507 and NASA Form 507A).

* * * * *

(pp) Item 41—Total profit or fee (11 positions). Enter the definitized negotiated fee or profit when applicable or available.

(1) For incentive contracts, enter the target fee.

(2) For award fee contracts, enter the base fee plus the maximum award fee.

(3) On modifications, enter the total cumulative, definitized fee and not merely the increase or decrease effected by the respective modification. (The initially reported fee will be overlaid by modification data.)

(4) Round all entries to the nearest whole dollar.

* * * * *

(rr) Item 43—Number of offers received—not used for 8(a) awards. Enter the actual number of offers received in response to a solicitation. Use 99 for offers totalling 99 or more.

(ss) Item 44—Competitive solicitation procedures. This item pertains to the requirements of FAR Part 6, Subpart 6.1 (Full and Open Competition), 6.2 (Full and Open Competition After Exclusion of Sources), and 6.3 (Other Than Full and Open Competition), with the exception of the statutory authorities for other than full and open competition (Subpart 6.3) which are reported in Item 45. Codes A through L designate the competition alternates described in FAR Part 6. Codes N and P designate actions which do not require application of these requirements. Modifications within the scope of a contract, and delivery order contract actions under requirements, or definite quantity contracts shall be reported the same as the initial contract. Delivery order contract actions under indefinite quantity contracts shall be reported the same as the initial contract when the following conditions, in FAR 6.001(f), are met: "Orders placed under indefinite-quantity contracts that were entered into pursuant to this Part when—The contract was awarded under Subpart 6.1 (Full and Open Competition) or Subpart 6.2 (Full and Open Competition After Exclusion of Sources) and all responsible sources were realistically permitted to compete for the requirements contained in the order; or The contract was awarded under Subpart 6.3 (Other than Full and Open Competition) and the required justification and approval adequately covers the requirements contained in the order."

(1) Code A—Normal Full and Open Competition is entered when the action resulted from an award pursuant to FAR 6.102(a), Sealed bids (see 6.401(a)); or 6.102(b), Competitive proposals (see 6.401(b)); or 6.102(c), Combination of competitive procedures. When this code is used, Items 21 and 46 must be coded competitive. This code will be used for Single Award Schedule Contracts ((i) Mandatory, unless information in the schedule indicates otherwise; (ii) Optional, if you competitively solicit the procurement and the GSA FSS contract is selected). This code may be used for ADP procurements except for those procurements where the solicitation utilized specific make or model specifications (see Item 44, Code L).

(2) Code B—Architect-Engineer is entered if the action resulted from selection of sources for architect engineer contracts in accordance with Pub. L. 92-582 and procedures in FAR Subpart 36.6 (see FAR 6.102(d)(1)). The selection of a potential A&E contractor

is made by an A&E Evaluation Board conducted in accordance with 41 U.S.C. 541 et seq. This selection process is considered a competitive procedure and for reporting purposes shall be reported as a competitive award. When this code is used, Item 43 must be coded 2; Item 45 must be blank; Item 46 must be coded 4; and Item 21 must be coded 3 or 4.

(3) Code C—Basic Research Proposal is entered if the action resulted from competitive selection of basic research proposals as a result of—

(i) A broad agency announcement that is general in nature identifying areas of research interest, including criteria for selecting proposals, and soliciting the participation of all offerors capable of satisfying the Government's needs; and

(ii) A peer or scientific review (see FAR 6.102(d)(2)). When this code is used, Item 46 must be coded 4.

(4) Code D—Multiple Award Schedule is entered if the action is an order issued against a multiple award schedule using the procedures in FAR (see FAR 6.102(d)(3)). When this code is used, Item 46 must be coded. 4. This code will be used for Multiple Award Schedule contracts (Mandatory or Optional). This code may be used for ADP procurements except for those procurements where the solicitation utilized specific make or model specifications (see Item 44, Code L). The use of Multiple Award Schedule program is considered to be a competitive procedure because competitive procedures were used by GSA to make the basic multiple award schedule contract awards under 41 U.S.C. 259(b)(3)(A). For reporting purposes, an order issued against a multiple award schedule shall be reported as a competitive award. When this code is used, Item 43 must be coded 2; Item 45 must be blank; Item 46 must be coded 4; and Item 21 must be coded 4.

(5) Code E—Alternate Source-Reduced Cost is entered if the action was taken pursuant to FAR 6.202(a)(1), which states that agencies may exclude a particular source from a contract action in order to establish or maintain an alternative source or sources for the supplies or services being acquired if the agency head determines that to do so would increase or maintain competition and likely result in reduced overall costs for the acquisition, or for any anticipated acquisition, of such supplies or services. When this code is used, Item 46 must be coded 1, 2, or 3.

(6) Code F—Alternate Source-Mobilization is entered if the action was taken pursuant to FAR 6.202(a)(2), which states that agencies may exclude a particular source from a contract action in order to establish or maintain an alternative source or sources for the supplies or services being acquired if the agency head determines that to do so would be in the interest of national defense in having a facility (or a producer, manufacturer, or other supplier) available for furnishing the supplies or services in case of a national emergency or industrial mobilization. When this code is used, Item 46 must be coded 1, 2, or 3.

(7) Code G—Alternate Source-Engineering/R&D Capability is entered if the action was taken pursuant to FAR 6.202(a)(3), which states that agencies may exclude a particular source from a contract action in order to establish or maintain an alternative source or sources for the supplies or services being required if the agency head determines that to do so would be in the interest of national defense in establishing or maintaining an essential engineering, research, or development capability to be provided by an educational or other nonprofit institution or a federally funded research and development center. When this code is used, Item 46 must be coded 1, 2, or 3.

(8) Code H—Small Business Set-Aside is entered if the action resulted from use of procedures for small business set-asides pursuant to FAR 6.203 which states that contracting officers may set aside solicitations to allow only such business concerns to compete. This code includes contract actions under the Small Business Innovation Research Program established under Pub. L. 97-219. When this code is used, Item 46 must be coded 1, 2, or 3 and Item 21 must be coded 4. SBIR awards must be coded 2 in Item 46. NF 507 Item 19 must be coded N, 1, or 2.

(9) Code J—Labor Surplus Area Set-Aside is entered if the action resulted from use of procedures for labor surplus area set-asides pursuant to FAR 6.203 which states that contracting officers may set aside solicitations to allow only such business concerns to compete. When this code is used, Item 46 must be coded 1, 2, or 3. NF 507 Item 19 must be coded 4.

(10) Code K—Combined LSA/Small Business Set-Aside is entered if the action resulted from use of procedures for combined LSA/Small Business Set-Asides pursuant to FAR 6.203. When this code is used, Item 46 must be coded 1, 2, or 3. NF 507 Item 19 must be coded 3.

(11) Code L—Other than Full and Open Competition is entered if the action resulted from use of other than full and open competition pursuant to 10 U.S.C. 2304(c). The certain conditions or exceptions that permit contracting without providing full and open competition are prescribed in FAR 6.302. This code will also be used for all ADP procurements where the solicitation utilized specific make and model specifications.

(12) Code N—8(a) Program is entered when the procurement action is made under Authority section 8(a) of the Small Business Act, which authorizes the Small Business Administration to enter into all types of contracts with other agencies and let subcontracts, for performing these contracts, to eligible minority firms (see FAR Subpart 19.8). When this code is used, Items 43, 45, and 46 must be blank. Contracts awarded under the 8(a) Program are not addressed in FAR Part 6.

(13) Code P—Otherwise Authorized by Statute is entered when using contracting procedures that are expressly authorized by statute and not addressed in FAR Part 6. When this code is used, Items 43, 45 and 46 must be blank. This code should not be used for statutes addressed in FAR 6.302-5.

(tt) Item 45—Authority for Other than Full and Open Competition. When Item 44 is coded L, then this item must be completed. Select the applicable categories listed below. This item identifies the solicitation process and not the extent of competiton used in the award of the contract.

* * * * *

c. Section 1804.676 is revised to read as follows:

1804.676 Committee on Academic Science and Engineering (C.A.S.E.) Report.

NASA Form 1356, "C.A.S.E. Report on College and University Projects," shall be prepared for awards to nonprofit institutions of higher education or nonprofit institutions which are operationally affiliated or integrated with an educational institution. Information is used to produce reports required by the National Science Foundation and to respond to inquiries. Submission is required regardless of instrument type (contract, grant or cooperative agreement) and type of proposal (solicited or unsolicited). Full instructions appear on the Form itself and constitute the detailed guidance for preparation and submission. The Form, which is either included with acquisition packages or initiated by the contracting office will, subsequent to the award, be completed, checked and promptly forwarded to the Procurement Management Division, Code HM, NASA Headquarters.

11. Subpart 1804.8 is amended as set forth below:

a. Section 1804.803–71 is added to read as follows:

1804.803–71 Checklist.

NASA Form 1098, Checklist for Contract Award File Content, shall be used as the "top page" in contact files. NF 1098 is intended as a reminder of the required or most important documents in the file. It also provides a uniform tab numbering system. Only the most frequently occurring documents are listed. Therefore, space is provided for writing in additional documents applicable to specific contracts or resulting from local guidelines. The user is cautioned that completion of the NF 1098, in and of itself, does not establish that all contract actions have been taken and/or properly documented.

b. Section 1804.804–5 is revised to read as follows:

1804.804–5 Detailed procedures for closing out contract files.

(a) When the contracting office retains contract administration (excluding small purchases), it shall use as necessary NASA Form 1612, Contract Closeout Checklist, and DD Form 1593, Contract Administration Completion Record, to ensure that the applicable actions enumerated at FAR 4.804–5(a) are completed.

(b) Upon completion of paragraph (a) above, the contracting officer shall use NASA Form 1611, Contract Completion Statement, (this will satisfy the requirements of FAR 4.804–5(b)) for all contracts exceeding $25,000. For contracts $25,000 and under, the contracting officer shall file a signed statement that all contract actions are complete.

1804.805–70 [Amended]

c. In 1804.805–70(a)(2) both dollar amounts of "$10,000" are revised to read "$25,000"; and in paragraph (b)(1), the citation "18–805" is revised to read "1804.805".

13. Subpart 1804.72 is amended by removing 1804.7202 and by revising 1804.7205(a) to read as follows:

1804.7202 [Removed]

1804.7205 Information to be furnished when requesting approval of contracts and supplemental agreements.

(a) *General.* Requests for approval of contracts and supplemental agreements submitted to Headquarters for approval by the Assistant Administrator for Procurement, in accordance with Subpart 1807.71, Master Buy Plan Procedures, and 1816.603, Letter contracts, shall include the information required by this section and shall be forwarded in sufficient time to allow a minimum of 15 days for review. The official contract file will be submitted with the request for approval and will include completed NASA Form 1098, Checklist for Contract Award File Content. Where Headquarters Legal Counsel review is required, a duplicate copy of the file should, if practical, be forwarded in order to expedite review. A list of contracts requiring such legal review will be published periodically.

* * * * *

14. Subpart 1804.73 is amended by revising 1804.7301 (a) and (d) to read as follows:

1804.7301 General.

(a) Procurement requests will be prepared and submitted to the contracting office in accordance with installation instructions.

* * * * *

(c) The procurement request shall be assigned within the contracting office to a negotiator who will be responsible to the contracting officer for conducting the business aspects of the transaction. The negotiator will review the request to ensure that it complies with the FAR, this Regulation, applicable installation instructions, and that the information contained in the request is in sufficient detail to prepare the solicitation. Uncertain requirements or inconsistencies in the procurement request will be discussed with the initiator of the request and clarified prior to the initiation of procurement action.

PART 1805—PUBLICIZING CONTRACT ACTIONS

15. Subpart 1805.2 is amended by adding 1805.202 to read as follows:

1805.202 Exceptions.

(a) Under FAR 15.507(b)(4), the contracting officer must comply with the preaward synopsis requirement at FAR 5.201 for all unsolicited proposals that will result in contracts, unless evaluation on a case-by-case basis demonstrates that FAR 5.202(a)(8) is applicable. Note that in keeping with the focus of Pub. L. 98–369, the rule, rather than the exception, is the use of synopses to foster competition.

(b) With careful drafting it should be possible to develop a generic or more detailed synopsis which adequately describes a NASA need without disclosing the originality of thought or innovativeness contained in an unsolicited research proposal. In a few instances the mere statement in a synopsis, without any further elaboration, that a particular problem and solution exist would improperly disclose the proposer's unique perception, i.e., the originality of thought or innovativeness. However, generally, the contracting officer, in developing the synopsis, should emphasize the problem or research area which the Government wishes to address rather than the solution proposed in the unsolicited proposal. Thus, the primary objective is to foster competition, while still encouraging the submission on unique and innovative concepts, the substance of which is not otherwise available to the Government.

(c) The phrase "proprietary information" as used at FAR 5.202(a)(8) means information (data) that constitutes a trade secret and/or information that is commercial or financial and confidential or privileged.

PART 1806—COMPETITION REQUIREMENTS

16. Subpart 1806.3 is amended as follows:

1806.301 Policy.

a. In 1806.301, the heading is revised to read as set forth above.

1806.302–1–70 [Amended]

b. In 1806.302–1—70(a), the citation "FAR 6.302–1(b)(6)" is revised to read "FAR 6.302–1(b)(4)".

c. In 1806.304(a), the following sentence is added to the end of the paragraph: "NASA Form 1452 shall be used for actions requiring Headquarters approval.", and paragraph (d) is revised to read as follows:

1806.304 Approval of the justification.

* * * * *

(d) Regardless of dollar value, class justifications shall be processed and approved as if they were individual justifications over $10,000,000.

PART 1807—ACQUISITION PLANNING

17. Subpart 1807.1 is amended by revising 1807.102, 1807.103(b)(1)(iii), and 1807.170–1 to read as follows:

1807.102 Policy.

(a) In R&D procurements over $100,000, when three or fewer sources are known, the contracting officer shall have the requirements office query the Defense Technical Information Center (DTIC) IR&D Database to identify additional sources conducting IR&D in the area of the instant procurement. This is in addition to any other market survey techniques.

(b) NASA uses several methods to document its acquisition planning. These include the Project Plan, Program Operation Plan (POP), normal budget

submissions, and procurement plan. The procurement plan is the only one of these coordinated documents that is a direct procurement responsibility. Instructions and requirements for completing the other documents are in various NMI's. The thresholds and requirements for NASA procurement plans are at 1807.103 below. As authorized in FAR 7.102, NASA will continue to use its existing procurement planning system in lieu of the criteria in FAR Subpart 7.1. However, all procurement plans will comply with FAR 7.104(c), 7.105(b)(2), and when appropriate, 7.106.

1807.103 Agency-head responsibilities.

* * * * *

(b) * * *

(1) * * *

(iii) For procurements that are selected for Headquarters review and approval in accordance with the Master Buy Plan Procedure, the procurement plan shall be submitted for the signature of the Head of the Installation after review and written concurrences by the Director or Assistant Director of the cognizant technical directorate, cognizant Program/Project Manager, or cognizant staff official, as applicable, who reports directly to the Head of the Installation, and by the Procurement Officer. The procurement plan shall be submitted to the Assistant Administrator for Procurement (Code HS) for coordination of the Headquarters review and approval process. The original and ten copies shall be submitted. The position title will be shown for each individual signing the procurement plan as required by paragraphs (b)(1) (i) through (iii) of this section.

* * * * *

1807.170-1 Procurement plans requiring approval by NASA Headquarters.

(a) Each procurement plan prepared for approval by NASA Headquarters shall be prepared on NASA Forms 1451 and 1452. Form 1451, Request for Procurement Plan Approval, shall be completed as follows:

(1) *Item 1. A descriptive short title.* In this item, include only a descriptive short title of the procurement plan. A Detailed Description of the Proposed Procurement will be attached to the Plan as Tab A. The information to be provided will consist of—

(i) A clear and concise description, including intended use, of the item or service to be procured;

(ii) Number of units, delivery schedule, and/or period of performance (Note: In the event a schedule of major events will enhance the plan, it should also be included);

(iii) An identification of any option provision including the period(s) covered and estimated costs thereof;

(iv) A brief discussion of the relationship between the proposed procurement and NMI 7121.1, Planning and Approval of Major Research and Development Projects; and

(v) A statement as to whether the contractor will be required to comply with detailed specifications, meet performance requirements, perform a mission, or furnish a level of effort.

(2) *Item 2. Name of installation.* Indicate the name of the installation responsible for the procurement.

(3) *Item 3. Plan prepared by.* Indicate the name of the individual who prepared the plan.

(4) *Item 4. Date.* Date the plan is prepared.

(5) *Item 5. Responsible technical office.* Identify the office (by title) that will be responsible for technical monitoring of the contract. Include a technical point of contact and telephone number.

(6) *Item 6. Total estimated cost of this procurement.* Provide one figure for the total estimated cost of the proposed procurement, including options, if any. When options are involved, show the cost for each option separately in the description (Tab A), as a breakout from total cost.

(7) *Item 7. Proposed funding by fiscal year and Unique Project Number (UPN).* Identify the funding amounts by appropriation, fiscal year, and UPN, for the procurement covered by the plan. Where funding is obtained from multiple projects, provide a complete identification of each fund source.

(8) *Item 8. Full and open competition.* If full and open competition is provided for, check box. If other than full and open competition is contemplated, check box.

(9) *Item 9. Type of contract.* State the type of contract recommended for the procurement. Under Tab B, Remarks, discuss the type of contract and the rationale for its selection. Where an incentive-type contract is proposed, discuss the type of incentive provision considered most suitable for the accomplishment of the procurement objectives.

(10) *Item 10. Facilities and Government-furnished property.* Indicate, by checking the appropriate box, whether the procurement will require the providing of any existing, new, or modified Government property. When other Government property is to be provided, identify the item(s) and dollar amount(s) involved. The dollar amount(s) provided in Item 12 will not be included in the dollar amounts specified under Items 7 and 9 of the form unless the property or facilities specified are part of the procurement. If dollar amounts under Item 12 are included under Items 7 and 9, the amounts should be so annotated under this item in Tab B, Remarks.

(11) *Item 11. Procurement action schedule.* Indicate the date the procurement plan was submitted to Headquarters for review and approval. For all other entries, provide only the number of calendar days required to complete the action (beginning at the time the previous action was completed) in order to meet the program schedule.

(b) *Tab B, Remarks.*—(1) *General.* Include any comments required by the above instructions not covered elsewhere and any other information considered essential to amplify or clarify any item on the form. In addition—

(i) Identify specific deviation(s) to the Acquisition Regulation;

(ii) Identify any special conditions or clauses required;

(iii) Identify all separate approvals required in support of the proposed procurement;

(iv) Include a copy of any comments by Counsel for the contracting office (or a statement that Counsel has no objection to the plan) and describe the actions taken in response to any such comments; and

(v) Discuss considerations given to small business, including minority business enterprises, participation.

(2) *Competition.* Describe how competition will be sought and promoted. If appropriate, discuss how competition will be sustained through the course of the acquisition. If full and open competition is not contemplated, cite the authority in FAR 6.202 or 6.302; identify the source(s); and discuss why full and open competition cannot be obtained.

18. Subpart 1807.2 is added to read as follows:

Subpart 1807.2—Planning for the Purchase of Supplies in Economic Quantities

1807.204 Responsibilities of contracting officers.

The contracting officer shall transmit in writing to the cognizant inventory management/requirements office either the actual offeror responses or a summary of the salient points thereof. This does not preclude preliminary verbal consultations. The transmittal should be made within five working

days after the closing date for receipt of offers; however, in negotiated acquisitions, if a response indicates a significant price variation, it should be transmitted immediately. All transmittals shall request the recipient to specify promptly whether the acquisition should be amended, cancelled, or concluded as is. Although award or negotiation need not be delayed pending a reply unless a potential for significant savings is apparent, such delay is encouraged where feasible in negotiated acquisitions in order to fully accommodate the intent and purpose of review of the data by the inventory management/requirements office. In sealed bid acquisitions, the policy in FAR 14.404–1(a) applies.

19. Subpart 1807.71 is amended as set forth below:

a. Section 1807.7102 is amended by revising paragraph (a) to read as follows:

1807.7102 Applicability.

(a) The Master Buy Plan Procedure is applicable to each negotiated procurement when the expected dollar value of that procurement, or aggregate amount of follow-on procurements (see 1807.103(b)(2)), is expected to equal or exceed the dollar value in paragraph (c) below, for the installation making the award. This procedure is also applicable to the following special procurements which are less than the paragraph (c) amounts:

(1) Procurement of utility services when an area-wide contract is not used and either—

(i) The annual cost of the services to be procured is estimated by the using installation, at the time of the initiation of the service or annual renewal of the expenditure, to exceed $100,000; or

(ii) When, except for communication services, a proposed connection charge, termination liability, or any other facilities charge to be paid (whether or not refundable) is estimated to exceed $25,000.

(2) Procurement of architect-engineer services for $1,000,000 or more including those services described at 18–15.903–70.

(3) Procurements which provide facilities having a total acquisition value exceeding $500,000, or provide real property regardless of amount (see 1845.302–1).

* * * * *

1807.7105 [Amended]

b. In 1807.7105(a), after the parenthetical phrase "(including supplemental agreements)", remove the words "and leases".

c. In 1807.7106, the Master Buy Plan Procedure Format, paragraph (7) is revised to read as follows:

1807.7106 Format of Master Buy Plan.

* * * * *

(7) List only *one* procurement on each page. Sequentially number each procurement action page with a two digit "Line Item Number" beginning with "01" for each annual submission and continue the same numbering system for amendments to the annual submission so as to provide a unique, sequential number throughout the entire fiscal year.

PART 1809—CONTRACTOR QUALIFICATIONS

20. Subpart 1809.1 is amended by revising 1809.106–7001 to read as follows:

1809.106–7001 General.

Subsections 1809.106–7001 through 1809.106–7205 establish procedures for conducting preaward surveys. They include preaward surveys conducted by NASA, those conducted by another agency for NASA, and those jointly conducted.

21. Subpart 1809.2 is amended by adding 1809.202 and 1809.206–1 and revising 1809.203–70(a) to read as follows:

1809.202 Policy.

(a) Authority regarding agency head actions under FAR 9.202(a) is delegated to the cognizant technical activity with approval by the installation Competition Advocate.

(b) The approval authority of FAR 9.202(e) is delegated to the installation Competition Advocate. Requests shall be prepared by the cognizant requirements office and submitted via the procurement officer.

1809.203–70 General.

(a) NASA Headquarters Office of Reliability and Quality Assurance (Code DR) is responsible for justifying, determining, and approving NASA's need for inclusion and continued usage of qualification requirements in specifications under the NASA Microelectronics Reliability Program.

* * * * *

1809.206–1 General.

(a) The emergency determination authority specified at FAR 9.206–1(b) is delegated to the installation Competition Advocate. Requests for determination shall be prepared by the cognizant requirements office and submitted through the procurement officer.

(b) Requests not to enforce a qualification requirement in a non-emergency situation shall be prepared by the cognizant requirements office and approved by the Headquarters Chief Engineer, Code D.

(c) Under FAR 9.206–1(c), if an offeror seeks to demonstrate its capability, where applicable, both the product and the producer must meet the established standards.

PART 1813—SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

1813.404 [Amended]

22. In Subpart 1813.4, 1813.404(a) is revised by placing a period after "$300" and removing the remainder of the sentence.

1813.7003 [Amended]

23. In Subpart 1813.70, 1813.7003(a) is revised by removing the parenthetical phrase "(or $500 under emergency conditions)".

PART 1814—SEALED BIDDING

1814.201–3 [Removed]

24. Subpart 1814.2 is amended by removing 1814.201–3.

PART 1815—CONTRACTING BY NEGOTIATION

25. Subpart 1815.4 is amended as set forth below:

1815.406–3 [Removed]

a. Section 1815.406–3 is removed.

b. Section 1815.406–5 is amended by redesignating paragraphs (a) and (b) as (b) and (c), respectively. New paragraph (a) is added, and newly redesignated paragraph (b)(9) is revised to read as follows:

1815.406–5 Part IV—Representations and instructions.

(a) *Section K, Representations, certifications, and other statements of offerors or quoters.* See 1845.104(b).

(b) * * *

(9) Include a statement that the solicitation does not commit the Government to pay any cost incurred in the submission of the offer/quotation or in making necessary studies or designs for the preparation thereof, nor to contract for services or supplies.

* * * * *

1815.407–70 [Amended]

c. In 1815.407–70, "1852.214–72" is revised to read "1852.215–72".

26. Subpart 1815.5 is amended by revising 1815.507(c) to read as follows:

1815.507 Contracting methods.

* * * * *

(c) See NFS 1805.202 for guidance in complying with the preaward synopsis requirement at FAR 15.507(b)(4).

27. Subpart 1815.6 is amended by revising 1815.613–70 and in 1815.613–71, adding paragraph (a)(4) to read as follows:

1815.613–70 General.

Pursuant to FAR 15.613, the source selection procedures in 1815.613 apply to all procurements negotiated by NASA. The evaluation of proposals received may be accomplished in a number of different ways. Evaluation of proposals received in response to an Announcement of Opportunity will be accomplished in accordance with NHB 8030.6, Guidelines for Acquisition of Investigations. The applicability of and rules for the conduct of source selection in accordance with formal source evaluation board procedures are covered at 1815.613–71. The policies prescribed at 1815.613–71 shall also apply to other negotiated procurements.

1815.613–71 Evaluation and negotiation of procurements conducted in accordance with the Source Evaluation Board Manual (NHB 5103.6).

(a) * * *

(4) These procedures may be used in any other competitively negotiated procurements where a Source Selection Official determines it is desirable to do so.

* * * * *

PART 1819—SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS CONCERNS

28. Part 1819 is amended by removing the heading for Subpart 1819.1. Section 1819.001, titled "Definitions" is added. Section 1819.101 is redesignated as 1819.001–70 and the heading is revised to read "Additional Definitions".

PART 1825—FOREIGN ACQUISITION

1825.109 [Removed]

1825.109–70 [Removed]

29. Subpart 1825.1 is amended by removing 1825.109 and 1825.109–70.

30. Section 1825.604 is amended by adding paragraph (e) to read as follows:

1825.604 Exempted supplies.

* * * * *

(e) Item 837.00 of Schedule 8 and the Subpart A headnote of Part 3, Schedule 8, provides for duty-free entry of articles launched into space by NASA, articles returned from space by NASA, including spare parts or necessary and uniquely associated support equipment. Consult 14 CFR 1214.15 (NMI 8610.18, "Space Transportation System; Duty-Free Entry of Space Articles") for procedures on obtaining the required Headquarters certificates for the duty-free entry of these articles.

PART 1827—PATENTS, DATA, AND COPYRIGHTS

31. Subpart 1827.3 is amended as follows:

a. In 1827.373, paragraphs (a)(1) and (c)(1) are revised, and paragraph (g) is added to read as follows:

1827.373 Contract clauses.

(a) * * *

(1) The contracting officer shall insert the clause at FAR 52.227–11, Patent Rights—Retention by the Contractor (Short Form), in any contract (and solicitation therefor) with a small business firm or a nonprofit organization for the performance of experimental, developmental, or research work unless a determination is made to use another clause pursuant to one of the exceptions set forth in paragraph (c) below. The clause shall be modified as specified at 1852.227–11. Also, see paragraph (f) below.

* * * * *

(c) * * *

(1) When work is to be performed outside the United States, its possessions, Puerto Rico by contractors that are not domestic firms, the clause at 1852.227–85, Invention Reporting and Rights—Foreign, shall be used unless the contracting officer determines, with concurrence of installation Patent Counsel, that the objectives of the contract would be better served by use of the clause at FAR 52.227–13, Patent Rights—Acquisition by the Government. For the purposes of this subparagraph, the contracting officer may presume that a contractor is not a domestic firm unless it is known that the firm is not foreign owned, controlled, or influenced. (See FAR 27.304–4(a) regarding subcontracts with U.S. firms.)

* * * * *

(g) *Solicitation provision.* The contracting officer shall insert the provision at 1852.227–84, Patent Rights Clauses, in solicitations for experimental, developmental, or research work to be performed in the United States, its possessions, or Puerto Rico, when the eventual awardee may be a small business or nonprofit organization but it is not known at the time of solicitation; e.g., the procurement is not a set-aside and is not sole source to a large business.

PART 1832—CONTRACT FINANCING

1832.470 [Removed]

32. Subpart 1832.4 is amended by removing 1832.470.

PART 1833—PROTESTS, DISPUTES, AND APPEALS

33a. The heading of Part 1833 is revised to read as set forth above.

33b. Subpart 1833.2 is amended by adding 1833.211–70 to read as follows:

1833.211–70 Contracts awarded before March 1, 1979.

Under contracts awarded before the effective date of the Contract Disputes Act of 1978 (March 1, 1979), the contractor may elect to proceed either under the Act or under the Disputes clause in the contract. Therefore, when preparing final decision letters regarding disputes under contracts awarded before March 1, 1979, the paragraph in FAR 22.211(a)(4)(v) should be revised to read as follows:

This is the final decision of the contracting officer. Since this contract was awarded before the effective date of the Contract Disputes Act of 1978 (March 1, 1979), you may appeal this decision by following the procedures of either the—

(a) Disputes clause (dated April 1984) in 52.233–1 of the Federal Acquisition Regulation; or

(b) Disputes clause (dated September 1962) in the contract.

If you decide to make an appeal under Procedure (a), the Disputes clause dated April 1984, you must mail or otherwise furnish written notice thereof to the NASA Board of Contract Appeals, Code NC, Room 6058, 4th and Maryland Avenue SW., Washington, DC 20546, within ninety days from the date you receive this decision. A copy thereof shall be furnished to the contracting officer from whose decision the appeal is taken. The notice shall indicate that an appeal is intended, should reference this decision, and identify the contract by number. For appeals under this clause you may, solely at your election, proceed under the NASA Board of Contract Appeals' small claims procedure (for claims $10,000 or less) or their accelerated procedure (for claims $50,000 or less). In lieu of appealing to the NASA Board of Contract Appeals, you may bring an action directly in the U.S. Claims Court within twelve months of the date you receive this decision.

If you decide to make an appeal under Procedure (b), the Disputes clause of this contract (*Disputes,* September 1962), you must mail or otherwise furnish *to the Contracting Officer,* within *thirty* days from the date you receive this decision, a written appeal or written notice thereof addressed to the Administrator of NASA or the Board of Contract Appeals, which shall indicate that an appeal is intended, and shall reference this decision and identify the contract by number. For appeals filed under this clause

you may elect to proceed under the NASA Board of Contract Appeals optional accelerated procedure (for claims $25,000 or less). The NASA Board of Contract Appeals is the authorized representative of the Administrator for hearing and determining disputes.

There is a separate set of Rules of the NASA Board of Contract Appeals for each of the two procedures described above; both sets appear in Part 14, Code of Federal Regulations, section 1241. The Board will mail a copy of its Rules to you if you timely file an appeal from this decision.

PART 1836—CONSTRUCTION AND ARCHITECT-ENGINEER CONTRACTS

1836.203 [Amended]

35. Section 1836.203(a) is amended by revising "For Office Use Only" to read "For Official Use Only".

PART 1837—SERVICE CONTRACTING

36. Subpart 1837.2 is amended by revising 1837.204–70(d), by adding 1837.204–71, and by revising 1837.205–71(b) (1) and (4) to read as follows:

1837.204–70 NASA policy.

* * * * *

(d) Consulting service tasks assigned to the Jet Propulsion Laboratory and amendments to contract NAS 7–100 must be reviewed and approved by the Associate Administrator for Management Operations (Code N).

* * * * *

1837.204–71 Public inspection.

(a) NASA's annual Appropriations Act states: "Except as otherwise provided under existing law or under an Executive Order issued pursuant to an existing law, the obligation or expenditure of any appropriation under this Act for contracts for any consulting service shall be limited to contracts which are (1) a matter of public record and available for public inspection, and (2) thereafter included in a publicly available list of all contracts entered into within twenty four months prior to the date on which the list is made available to the public and of all contracts on which performance has not been completed by such date. The list required by the preceding sentence shall be updated quarterly and shall include a narrative description of the work to be performed under each such contract."

(b) In accordance with paragraph (a) above, the Office of Procurement (Code HM) will be rsponsible for preparing and distributing the list for public inspection on a quarterly basis to NASA Information Centers pursuant to NMI 1382.2 (14 CFR Part 1206), "Availability of Agency Records to Members of the Public." Copies of such lists will also be distributed to NASA installation procurement offices to assure an awareness of contracts that have been highlighted for public inspection.

(c) Public inspection of consultant service contracts and purchase orders at NASA field installations in accordance with the Appropriations Act, will be limited to basic contract documents and modifications. Requests for copies of contracts or other data will be handled in accordance with NMI 1382.2 and OFPP Policy Letter No. 78–3, dated March 30, 1978.

1837.205–71 Negotiation of contracts.

* * * * *

(b) * * *

(1) The contractor warrants that the rates quoted are not in excess of those charged nongovernmental clients for the same services performed by the same individuals;

* * * * *

(4) The contractor agrees that any reports regarding organizational matters (as required by the contract) shall include, when feasible, in addition to the recommendations, alternative methods to be considered and the pros and cons of each alternative.

PART 1839—MANAGEMENT ACQUISITION AND USE OF INFORMATION RESOURCES

1839.7003–2 [Amended]

36. In section 1839.7003–2, in the Format, in paragraph 5(ii)(G), the reference to "FIRMR 201–30.013–2)." is revised to read "FIRMR 201–11.002–1)."

PART 1842—CONTRACT ADMINISTRATION

1842.202–70 [Amended]

37. Subpart 1842.2 is amended by revising the last sentence of 1842.202–70(e) to read "When retained, the functions should be performed in accordance with Subpart 1845.72."

PART 1845—GOVERNMENT PROPERTY

38. Subpart 1845.1 is amended by revising 1845.106–70(c) to read as follows:

1845.106–70 NASA contract clauses.

* * * * *

(c) The contracting officer shall insert the clause at 1852.245–72, Liability for Government Property Furnished for Repair and Services, in solicitations and contracts on a fixed-price basis (except for experimental, developmental, or research work with educational or nonprofit institutions, where no profit to the contractor is contemplated) for repair (modification, rehabilitation) or other servicing of Government property, when such property is furnished to a contractor for that purpose. If a substantial quantity of parts or material will be furnished to the contractor, or a significant amount of scrap will result from the work to be performed, or if other Government property will be furnished to or acquired by the contractor, the contract will also contain the appropriate Government property clause (see FAR 45.106) and the Schedule of the contract shall provide that such property shall be governed by the terms of that clause. When minor repairs are obtained under small purchases procedures, the procedures of this paragraph will not apply. Contracting officers shall not require additional insurance under the clause unless the circumstances clearly indicate advantages to the Government.

* * * * *

39. Subpart 1845.3 is amended as follows:

1845.302–70 [Amended]

a. In 1845.302–70(a), the words "NASA Management Delegation A7330.1B." is revised to read "NASA Management Instruction 7330.1C."

40. Subpart 1845.72 is amended by revising 1845.7205(f)(1) to read as follows:

1845.7205 Functional oversight of property administration and plant clearance.

* * * * *

(f) * * *

(1) Obtain and review property control system survey summaries for all contracts for which property administration has been delegated. Advise Headquarters Code NIE of any severe or continuing problems.

* * * * *

PART 1847—TRANSPORTATION

41. Subpart 1847.1 is amended by revising 1847.506–70(a) and adding 1847.507 to read as follows:

1847.506–70 Compliance with the Cargo Preference Act.

(a) A register will be established and maintained by the transportation officer in each field installation to reflect adherence to the Cargo Preference Act. The register shall contain data related to shipments made by the installation, as well as those made by NASA contractors. Where there is no transportation officer available, it will be maintained by the procurement office. Such registers shall contain pertinent details of ocean shipments,

including, but not limited to, the ports of origin and destination of shipments, commodity descriptions, and gross weight, freight revenue, name of vessel, operator of vessel, and date of loading. Registers shall be maintained on a current basis and organized so that adherence to the Cargo Preference Act can be ascertained at all times. Insofar as practicable, compliance with the 50 percent minimum requirements of the Cargo Preference Act shall be maintained on a quarter-year basis. Any deficiencies to maintain such compliance shall be corrected by the end of the calendar year.

* * * * *

1847.507 Contract clauses.

The basic clause at FAR 52.247-64 with the appropriate alternate (I or II) shall be used.

PART 1851—USE OF GOVERNMENT SOURCES BY CONTRACTORS

42. Subpart 1851.70 is amended by revising 1851.7003(c), 1851.7004, and 1851.7005 to read as follows:

1851.7093 Eligible contractors.

* * * * *

(c) Contractor is on- or near-site at a NASA installation.

* * * * *

1851.7004 Procedures.

(a) Individual airline tariffs as well as airline business strategies govern the availability of the discount fares. These rules and practices will be interpreted and applied by the contractor's source of airline tickets when contractors request service and are the reason for the provision in paragraph (g) of the clause at 1852.251-70. Where airline tariffs permit use of discount fares which are in addition to the GSA contract fare, such additional fares should also be used.

(b) The basic procedures for obtaining GSA City-Pairs Contract and other government discount passenger air transportation rates to be followed by contractors is set forth in the clause at 1852.251-70. (The contractor's source of airline tickets and Installation Travel Offices will comply with guidance provided by the Transportation Management Office.)

(c) For both new and amended contracts, the contracting officer shall notify the installation travel office that the clause in (b), above, has been used and furnish contractor name, contract number, and period of performance.

1851.7005 Contract clause.

The contracting officer shall insert the clause at 1852.251-70, Contractor Employee Air Transportation, in solicitations and contracts with contractors determined eligible in accordance with 1851.7003. The clause implements the following special conditions, based on NASA-Air Transport Association agreements, which must be observed in authorizing a contractor to use reduced GSA-negotiated passenger airfares:

(a) Service must be ordered on SF 1169, U.S. Government Transportation Request (GTR).

(b) Tickets may be obtained only for bona-fide contractor employees, e.g., the procedures cannot be used to obtain tickets for Government employees.

(c) Air carriers are not obligated to make city-pairs contract fares or other Government discount fares available to NASA contractors (see 1851.7004).

PART 1852—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

43. Subpart 1852.2 is amended as follows:

1852.214-70, 1852.215-73, and 1852.225-70 [Removed]

a. Sections 1852.214-70, 1852.215-73, and 1852.225-70 are removed.

b. Sections 1852.227-84, and 1852.227-85 are added to read as follows:

1852.227-84 Patent Rights Clauses.

The contracting officer shall insert the following provision as prescribed in 1827.373(g):

Patent Rights Clauses (April 1986)

This solicitation contains the patent rights clauses of FAR 52.227-11 (as modified by the NFS), NFS 1852.227-70, and NFS 1852.227-73. If the contract resulting from this solicitation is awarded to a small business or nonprofit organization, the clause at NFS 1852.227-70 shall not apply. If the award is to other than a small business or nonprofit organization, the clauses at FAR 52.227-11 and NFS 1852.227-73 shall not apply.

(End of Provision)

1852.227-85 Invention Reporting and Rights—Foreign.

As prescribed in 1827.373(c)(1), insert the following clause:

Invention Reporting and Rights—Foreign (April 1986)

(a) As used in this clause, the term "invention" means any invention, discovery or improvement, and "made" means the conception or first actual demonstration that the invention is useful and operable.

(b) The Contractor shall report promptly to the Contracting Officer each invention made in the performance of work under this contract. The report of each such invention shall:

(1) Identify the inventor(s) by full name; and

(2) Include such full and complete technical information concerning the invention as is necessary to enable an understanding of the nature and operation thereof.

(c) The Contractor hereby grants to the Government of the United States of America as represented by the Administrator of the National Aeronautics and Space Administration the full right, title and interest in and to each such invention throughout the world, except for the State in which this contract is to be performed. As to such State, Contractor hereby grants to the Government of the United States of America as represented by the Administrator of the National Aeronautics and Space Administration only an irrevocable, nontransferable, nonexclusive, royalty-free license to practice each such invention by or on behalf of the United States of America or any foreign government pursuant to any treaty or agreement with the United States of America or any foreign government pursuant to any treaty or agreement with the United States of America, provided that Contractor within a reasonable time files a patent application in that State for each such invention. Where Contractor does not elect to file such patent application for any such invention in that State, full right, title and interest in and to such invention in that State shall reside in the Government of the United States of America as represented by the Administrator of the National Aeronautics and Space Administration.

(d) The Contractor agrees to execute or to secure the execution of such legal instruments as may be necessary to confirm and protect the rights granted by paragraph (c) above, including papers incident to the filing and prosecution of patent applications.

(e) Upon completion of the contract work, and prior to final payment, Contractor shall submit to the Contracting Officer a final report listing all inventions reportable under this contract or certifying that no such inventions have been made.

(f) In each subcontract, the Contractor awards under this contract where the performance of research, experimental design, engineering, or developmental work is contemplated, the Contractor shall include this clause and the name and address of the Contracting Officer. (End of Clause)

c. Section 1852.251-70 is revised to read as follows:

1852.251-70 Contractor Employee Air Transportation.

As prescribed at 1851.7005, insert the following clause:

Contractor Employee Air Transportation (December 1985)

(a) To the maximum extent practicable consistent with travel requirements, the Contractor shall use the reduced air transportation rates and services provided through available Government-discount airfares for bonafide employees' travel that is otherwise reimbursable as a direct cost pursuant to this contract.

(b) Upon initial receipt of this contract or amendment, the Contractor shall notify the travel office of the issuing installation of the

name and title of the Contractor employee responsible for authorizing each individual airline ticket purchase and provide a copy of the Contractor's document by which such authorization is made. At a minimum, this document shall require that ticket purchases be supported with the name and position of the traveler, the purpose of the travel, the itinerary (places and dates), and the dated signature and position of the authorizing official. Revised notifications shall be made to accommodate changed responsibilities.

(c) The Contractor will acknowledge receipt of Standard Form 1169, Government Transportation Request (GTR) by signing the Transmittal document (NASA Form 1622) and returning it to the issuing travel office.

(d) The Contractor shall order Government-discount airfare services only through issuance of a GTR. The authorized Contractor official shall obtain the installation travel officer's signature on the requisite number of GTR's for each ordering period. However, a maximum of one GTR per applicable contract per billing period shall be provided to the source of airline tickets.

(e) All tickets purchased at Government discount rates will be obtained with the GTR and each ticket shall have at least one flight coupon at Government discount rates.

(f) The Contractor shall account for each issued GTR, safeguard GTR's against unauthorized use, and return unused GTR's to the issuing NASA office upon completion of the contract. The installation travel office and the source of airline tickets shall be promptly notified of lost or stolen GTR's. The contractor shall establish procedures with its source of airline tickets to obtain refunds for tickets ordered and issued, but not used.

(g) Nothing in this clause shall authorize obtaining transportation or services which are not otherwise reimbursable as direct costs under this contract, or for use by Government employees. Nothing in this clause requires air carriers to make available to the Contractor city-pair contract fares or other Government discount fares. (End of clause)

PART 1853—FORMS

44. Subpart 1853.2 is amended by revising 1853.207(b) and 1853.251 to read as follows:

1853.207 Acquisition planning (NF's 1451, 1452).

* * * * *

(b) *NASA Form 1452, Signature Page (Installation).* NF 1452, prescribed at 1806.304(a) and 1807.170–1(a), shall be used in obtaining installation-level signatures required by 1806.304 and 1807.103.

1853.251 Contractor Employee Air Transportation (SF's 1169, NF 1622).

The following forms, prescribed at 1851.7005, shall be used in conjunction with employee air transportation under specified contracts:

(a) *Standard Form 1169, U.S. Government Transportation Request.* Form 1169 shall be used by contractors to obtain tickets.

(b) *NASA Form 1622, Transmittal and Acknowledgement of Government Transportation Requests.* Form 1622 shall be used in transmitting the NASA Forms 1169 to contractors.

[FR Doc. 86–17479 Filed 8–1–86; 8:45 am]

BILLING CODE 7510-01-M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 661

[Docket No. 60477–6077]

Ocean Salmon Fisheries Off the Coasts of Washington, Oregon, and California

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

ACTION: Notice of inseason adjustments and request for comments.

SUMMARY: The Secretary of Commerce (Secretary) announces a reduction of the bag limit in the recreational fishery from Cape Falcon to Cape Blanco, Oregon. Previous action has been taken to close the fishery on Sunday and Monday of each week. This action is necessary to slow the harvest of coho salmon and increase the likelihood that the fishery will extend through Labor Day. It is intended to allow a maximum length of season for the recreational fishery established by the 1986 ocean salmon fishing regulations.

EFFECTIVE DATE: The reduced bag limit for the recreational fishery from Cape Falcon to Cape Blanco, Oregon, is effective at 2400 hours Pacific Daylight Time on July 28, 1986. Comments on this notice will be received until August 11, 1986.

ADDRESS: Comments may be mailed to Rolland A. Schmitten, Director, Northwest Region, NMFS, BIN C15700, 7600 Sand Point Way, NE., Seattle, WA 98115–0070. Information relevant to this notice has been compiled in aggregate form and is available for public review during business hours at the same address.

FOR FURTHER INFORMATION CONTACT: Rolland A. Schmitten (Regional Director), 206–526–6150.

SUPPLEMENTARY INFORMATION: The ocean salmon fisheries off Washington, Oregon, and California are managed under a framework fishery management plan (50 CFR Part 661). The framework regulations were modified by an emergency rule (51 FR 18451, May 20, 1986) which, among other things, established inseason management provisions for the 1986 season.

The emergency rule authorizes inseason adjustments to management measures if the adjustments are consistent with fishery regimes established by the U.S.-Canada Pacific Salmon Commission, ocean escapement goals, conservation of the salmon resource, any adjudicated Indian fishing rights, and the ocean allocation schemes in the framework amendment. In addition, all inseason adjustments must be based on consideration of the following factors: predicted sizes of salmon runs; harvest quotas and hooking mortality limits for the area and total allowable impact limitations if applicable; amount of recreational, commercial and treaty Indian catch for each species in the area to date; amount of recreational, commercial, and treaty Indian fishing effort in the area to date; estimated average daily catch per fisherman; predicted fishing effort for the area to the end of the scheduled season; and other factors as appropriate.

The all-species recreational fishery from Cape Falcon to Cape Blanco, Oregon, opened on May 24, 1986 with a harvest quota of 189,000 coho south of Cape Falcon. The fishery was closed on Sunday and Monday of each week beginning July 27, 1986 (51 FR 26900 citation). Projected landings south of Cape Falcon totaled 144,000 coho through July 26, 1986. At current fishing rates the recreational fishery would harvest its coho quota and close before the Labor Day weekend. This two-day-per-week closure will not curtail the progress of the fishery sufficiently to allow the fishery to continue through the Labor Day weekend.

The Regional Director consulted with the Director of the Oregon Department of Fish and Wildlife (ODFW) and the Chairman of the Pacific Fishery Management Council regarding a reduction in the bag limit from 6 salmon to 2 salmon in any 7 consecutive days. The ODFW Director confirmed that Oregon would manage the ocean recreational fisheries in state waters adjacent to this area of the fishery conservation zone in accordance with a revised bag limit.

After consideration of the factors listed above, the Secretary determined that a reduction in bag limit is consistent with criteria in the emergency rule, and therefore issues this notice to reduce the bag limit to 2 salmon in any 7 consecutive days in the recreational fishery from Cape Falcon to Cape Blanco, Oregon, until modified or rescinded.

This notice does not apply to other salmon fisheries which may be operating in other areas nor to other fisheries in the same area.

Other matters

This notice is authorized by 50 CFR 661.23 and is in compliance with Executive Order 12291.

List of Subjects in 50 CFR Part 661

Fisheries, Fishing, Indians.

Dated: July 29, 1986.

James E. Douglas, Jr.,

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

[FR Doc. 86-17435 Filed 7-30-86; 10:56 am]

BILLING CODE 3510-22-M

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50 CFR Part 674

[Docket No. 50694-5094]

High Seas Salmon Fishery Off Alaska

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

ACTION: Notice of closure.

SUMMARY: The Secretary of Commerce (Secretary) closes one area of the fishery conservation zone (FCZ) to commercial salmon fishing off Southeast Alaska. This action is necessary to protect coho salmon returning to the northern inside waters of Southeast Alaska and some rivers coming out of Canada. The intent of this action is to ensure that adequate numbers of coho salmon return to their spawning grounds. This action complements similar actions on the commercial troll salmon fishery in waters managed by the State of Alaska.

DATE: This notice is effective at 0001 hours Alaska Daylight Time (ADT) July 30, 1986, and will expire at 2400 hours ADT on September 20, 1986, unless modified by a later notice. Public comments are invited until August 29, 1986.

ADDRESS: Send comments to Robert W. McVey, Director, Alaska Region, National Marine Fisheries Service, P.O. Box 1668, Juneau, Alaska 99802. During the 30-day public comment period, the data upon which this notice is based will be available for public inspection during the hours of 0800 to 1630 (ADT) Monday through Friday at the NMFS Regional Office, Room 453, Federal Building, 709 West Ninth Street, Juneau, Alaska.

FOR FURTHER INFORMATION CONTACT: Aven M. Andersen (Fishery Management Biologist, NMFS), 907-586-7228.

SUPPLEMENTARY INFORMATION: This notice implements a provision of the regulations implementing the Pacific Salmon Treaty and the Fishery Management Plan for the High Seas Salmon Fishery off the coast of Alaska (FMP). The FMP was developed and amended by the North Pacific Fishery Management Council. The regulations (50 CFR Part 674) govern the salmon fisheries in the FCZ off the coast of Alaska east of 175° East longitude. They were issued under section 7(a) of Pub. L. 99-5, the Pacific Salmon Treaty Act of 1985 (16 U.S.C. 3631 *et seq.*) and under section 305 of the Magnuson Fishery Conservation and Management Act, as amended (16 U.S.C. 1801 *et seq.*).

Section 674.23 of the regulations provides that the Secretary may modify the fishing periods and fishing areas by publishing a notice in the **Federal Register.** Any such modification must be based on a determination by the Director of the Alaska Region of NMFS (Regional Director), that (a) the condition of any salmon species is "substantially different from the condition anticipated in the FMP", and (b) this difference requires a modification of the fishing times and areas to conserve adequately any salmon species. The regulations specify the factors the Regional Director may consider. The regulations also specify that the Secretary must consult with the Alaska Department of Fish and Game (ADF&G) before he modifies the regulations.

In view of these requirements, the Regional Director (acting on behalf of the Secretary) has consulted with ADF&G. Also, he has reviewed the information on the 1986 salmon fishery to date, has determined that some coho salmon stocks in 1986 are substantially different from the condition anticipated in the FMP, and has determined that this difference in stock condition requires that an area of the FCZ be closed to commercial salmon trolling as of 0001 hours ADT on July 30, 1986.

Information available at this time indicates that coho abundance is extremely depressed in the northern inside waters of Southeast Alaska. The Alaska Department of Fish and Game has been monitoring the troll fisheries in Icy Strait and upper Chatham Strait, the salmon gillnet fishery in the Taku River-Snettisham area, and the sport fishery in the Juneau area. These fisheries serve as indicators of the abundance of coho salmon moving to the northern inside fishing areas and spawning grounds. The present information on the harvests and catch-per-unit-of-effort in these fisheries indicate that serious conservation problems (particularly, inadequate spawning escapement) could occur if coho abundance in these northern inside waters does not increase. For example, for the Taku-Snettisham drift gillnet fishery, the cumulative coho catch as of July 20 is less than 4,000 coho and the daily catch rate has shown no significant increase, whereas normally the cumulative catch would be about 20,000 and the catch rate would be increasing rapidly.

In sharp contrast to these northern inside fisheries, information from the commercial troll fishery in offshore waters, and from the gillnet and sport fisheries in the southern parts of Southeast Alaska indicate relatively strong runs of coho in those areas. The trollers in the offshore area north of Sitka are catching an average of about 80 coho per boat per day. The overall troll catch to date is considerably above the catch to date for both the 1985 season and the 1981-1985 average; coho catches by the gillnet fisheries in the southern areas are average or above average; and the coho catch per sport fisherman per hour at Ketchikan is considerably above that of 1985.

At this time, then, it appears that only those coho stocks migrating through Icy Straits to the northern inside areas appear to be weak. These stocks normally pass through the ocean area north of Cross Sound now being fished heavily by the trollers. Thus, the troll fishery in that area needs to be stopped until the picture becomes clearer.

Accordingly, the Regional Director has decided to close part of the FCZ north of Cape Cross. He is taking this action in conjunction with similar actions being taken by the ADF&G for waters under its jurisdiction. Specifically, he is closing the entire FCZ north of a line extending seaward due west (270° true) from Cape Cross (57°55.5′ N. lat., 136°34.5′ W. long.) to a line extending seaward on a course of 231° true from a point on the beach about 9 nautical miles northwest of Cape Fairweather located at (58°56.8′ N. lat., 138°02.7′ W. long.; about where Loran C line 7960-Y-29700 intersects the coast).

ADF&G is closing the State coastal waters inside this area of the FCZ, but is leaving waters of North Inian Pass, Icy Strait, and Lisianski Inlet open to fishing to help in monitoring the passage of coho through those areas.

The Regional Director and ADF&G have closed the above areas because the closures should give considerable protection to southward migrating coho that will enter Icy Strait through Cross Sound, but will interfere little with the

fisheries harvesting coho destined for outside spawning areas north of Cape Fairweather or those harvesting coho destined for southerly and central areas.

Section 674.23(b)(3) requires the Secretary to accept and consider public comments for 30 days after the effective date of this notice, which does not provide an opportunity for the public to comment before its effective date. The aggregated data upon which this closure is based is available for public inspection at the address given above. The Secretary will consider all public comments received, and will publish a notice in the **Federal Register** either confirming this action's continued effect, modifying it, or rescinding it, unless the action has already expired or been rescinded.

The closure will become effective after this notice has been filed for public inspection with the Office of the Federal Register and the closure has been publicized for 48 hours through procedures customarily used by ADF&G, as prescribed under § 674.23(b)(2).

Classification

This action is exempt from sections 4 through 8 of the Administrative Procedure Act, the Regulatory Flexibility Act, and Executive Order 12291 because, as is expressly provided in section 7(a) of Pub. L. 99–5, it involves a foreign affairs function. It contains no requirement for collecting information for purposes of the Paperwork Reduction Act.

List of Subjects in 50 CFR Part 674

Fisheries, Fishing, International organizations, Reporting and recordkeeping requirements.

Authority: 16 U.S.C. 3631 *et seq.*; 16 U.S.C. 1801 *et seq.*

Dated: July 29, 1986.

James E. Douglas, Jr.,

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

[FR Doc. 86–17436 Filed 7–30–86; 10:56 am]

BILLING CODE 3510-22-M

Proposed Rules

Federal Register
Vol. 51, No. 149
Monday, August 4, 1986

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF AGRICULTURE

Federal Crop Insurance Corporation

7 CFR Part 447

[Docket No. 3515S]

Popcorn Crop Insurance Regulations

AGENCY: Federal Crop Insurance Corporation, USDA.

ACTION: Proposed rule.

SUMMARY: The Federal Crop Insurance Corporation (FCIC) hereby proposes to revise and reissue the Popcorn Crop Insurance Regulations (7 CFR Part 447), effective for the 1987 and succeeding crop years. The intended effect of this rule is to: (1) Change the method of calculating the insured's share of an indemnity on crops transferred before harvest; (2) Increase the amount of acreage which must be replanted to obtain replanting plants; (3) Shorten the length of time an insured has to give notice when claiming an indemnity; and (4) Establish a standard shelling factor for use when a shelling factor cannot be determined. The authority for the promulgation of this rule is contained in the Federal Crop Insurance Act, as amended.

DATE: Written comments, data, and opinions on this proposed rule must be submitted not later than September 3, 1986, to be sure of consideration.

ADDRESS: Written comments on this proposed rule should be sent to the Office of the Manager, Federal Crop Insurance Corporation, Room 4096, South Building, U.S. Department of Agriculture, Washington, DC 20250.

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

SUPPLEMENTARY INFORMATION: This action has been reviewed under USDA procedures established by Departmental Regulation 1512-1. This action constitutes a review as to the need, currency, clarity and effectiveness of these regulations under those procedures. The sunset review date established for these regulations is June 1, 1991.

E. Ray Fosse, Manager, FCIC, (1) has determined that this action is not a major rule as defined by Executive Order 12291 because it will not result in: (a) An annual effect on the economy of $100 million or more; (b) Major increases in costs or prices for consumers, individual industries, Federal, State, or local governments, or a geographical region; or (c) Significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises in domestic or export markets; and (2) certifies that this action will not increase the Federal paperwork burden for individuals, small businesses, and other persons.

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

This program is listed in the Catalog of Federal Domestic Assistance under No. 10.450.

This program is not subject to the provisions of Executive Order 12372 which requires intergovernmental consultation with State and local officials. See the Notice related to 7 CFR Part 3015, Subpart V, published at 48 FR 29115, June 24, 1983.

This action is not expected to have any significant impact on the quality of the human environment, health, and safety. Therefore, neither an Environmental Assessment nor an Environmental Impact Statement is needed.

Other than minor changes in language and format, the principal changes in the popcorn policy are:

1. Section 2.c.—Add a clause to change the method of calculating the insured's share of an indemnity on crops transferred before harvest. This limits indemnities to the insurable interest at the time of loss.

2. Section 5.c.—Remove the provision for rate adjustment and transfer of experience. Since the crop program was implemented in 1984, this provision is not applicable because no experience would have accumulated through the 1983 crop year as specified in the policy.

3. Section 8.a.(1)(a)—Increase from 10 acres or 10 percent to 20 acres or 20 percent the acreage replanted to qualify for a replant payment and apply a specific time frame for determining the replant for the unit. These changes will reduce the number of inspections by eliminating insignificantly small replant payments and paperwork.

Section 8.a.(4)—Shorten from 30 to 10 days the time an insured has to give notice of loss when claiming an indemnity. This change allows FCIC to determine indemnities more efficiently and quickly.

4. Section 9.e.(3)—Establish at 80% the standard shelling factor for use when a shelling factor cannot be determined. This will allow any ear production for which we cannot determine a shelling factor to be considered to have an 80 percent shelling factor.

FCIC is soliciting public comments on this proposed rule for 30 days after publication in the **Federal Register**. Written comments will be available for public inspection in the Office of the Manager, Federal Crop Insurance Corporation, Room 4096, South Building, U.S. Department of Agriculture, Washington, DC 20250, during regular business hours, Monday through Friday.

List of Subjects in 7 CFR Part 447

Crop insurance; Popcorn.

Proposed Rule

Accordingly, pursuant to the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), the Federal Crop Insurance Corporation proposes to revise and reissue the Popcorn Insurance Regulations (7 CFR Part 447), effective for the 1987 and succeeding crop years, to read as follows:

PART 447—POPCORN CROP INSURANCE REGULATIONS

Subpart—Regulations for the 1987 and Succeeding Crop Years

Sec.

447.1 Availability of popcorn crop insurance.
447.2 Premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed.
447.3 OMB control numbers.
447.4 Creditors
447.5 Good faith reliance on misrepresentation.
447.6 The contract.

Sec.
447.7 The application and policy.

Authority: Secs. 506, 516, Pub. L. 75–430, 52 Stat. 73, 77, as amended (7 U.S.C. 1506, 1516).

§ 447.1 Availability of popcorn corp insurance.

Insurance shall be offered under the provisions of this subpart on popcorn in counties within the limits prescribed by and in accordance with the provisions of the Federal Crop Insurance Act, as amended. The counties shall be designated by the Manager of the Corporation from those approved by the Board of Directors of the Corporation.

§ 447.2 Preimum rates, production guarantees, coverage levels, and prices at which indemnities shall be computed.

(a) The Manager shall establish premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed for popcorn which will be included in the actuarial table on file in the applicable service offices for the county and which may be changed from year to year.

(b) At the time the application for insurance is made, the applicant will elect a coverage level and price at which indemnities will be computed from among those levels and prices set by the actuarial table for the crop year.

§ 447.3 OMB control numbers.

OMB control numbers are contained in Subpart H of Part 400, Title 7 CFR.

§ 447.4 Creditors.

An interest of a person in an insured crop existing by virtue of a lien, mortgage, garnishment, levy, execution, bankruptcy, involuntary transfer or other similar interest shall not entitle the holder of the interest to any benefit under the contract.

§ 447.5 Good faith reliance on misrepresentation.

Notwithstanding any other provision of the popcorn insurance contract, whenever: (a) An insured under a contract of crop insurance entered into under these regulations, as a result of a misrepresentation or other erroneous action or advice by an agent or employee of the Corporation: (1) Is indebted to the Corporation for additional premiums; or (2) Has suffered a loss to a crop which is not insured or for which the insured is not entitled to an indemnity because of failure to comply with the terms of the insurance contract, but which the insured believed to be insured, or believed the terms of the insurance contract to have been complied with or waived; and (b) The Board of Directors of the Corporation, or the Manager in cases involving not more than $100,000.00, finds that: (1) An agent or employee of the Corporation did in fact make such misrepresentation or take other erroneous action or give erroneous advice; (2) Said insured relied thereon in good faith; and (3) To require the payment of the additional premiums or to deny such insured's entitlement to the indemnity would not be fair and equitable, such insured shall be granted relief the same as if otherwise entitled thereto. Requests for relief under this section must be submitted to the Corporation in writing.

§ 447.6 The contract.

The insurance contract shall become effective upon the acceptance by the Corporation of a duly executed application for insurance on a form prescribed by the Corporation. The contract shall cover the popcorn crop as provided in the policy. The contract shall consist of the application, the policy, and the county actuarial table. Changes made in the contract shall not affect its continuity from year to year. The forms referred to in the contract are available at the applicable service offices.

§ 447.7 The application and policy.

(a) Application for insurance on a form prescribed by the Corporation must be made by any person to cover such person's share in the popcorn crop as landlord, owner-operator, or tenant if the person wishes to participate in the program. The application shall be submitetd to the Corporation at the service office on or before the applicable sales closing date on file in the service office.

(b) The Corporation may discontinue the acceptance of any application or applications in any county upon its determination that the insurance risk is excessive. The Manager of the Corporation is authorized in any crop year to extend the sales closing date for submitting applications in any county, by placing the extended date on file in the applicable service offices and publishing a notice in the **Federal Register** upon the Manager's determination that no adverse selectivity will result during the extended period. However, if adverse conditions should develop during such period, the Corporation will immediately discontinue the acceptance of applications.

(c) In accordance with the provisions governing changes in the contract contained in previous policies and regulations issued by FCIC, a contract in the form provided for in this subpart will come into effect as a continuation of a popcorn contract issued under such prior regulations, without the filing of a new application.

(d) The application for the 1987 and succeeding crop years in found at Subpart D of Part 400—General Administrative Regulations (7 CFR 400.37, 400.38) and may be amended from time to time for subsequent crop years. The provisions of the Popcorn Insurance Policy for the 1987 and succeeding crop years are as follows:

DEPARTMENT OF AGRICULTURE

Federal Crop Insurance Corporation

Popcorn—Crop Insurance Policy

(This is a continuous contract. Refer to Section 15.)

AGREEMENT TO INSURE: We will provide the insurance described in this policy in return for the premium and your compliance with all applicable provision.

Throughout this policy, "you" and "your" refer to the insured shown on the accepted Aplication and "we," "us," and "our" refer to the Federal Crop Insurance Corporation.

Terms and Conditions

1. Causes of loss.

a. The insurance provided is against unavoidable loss of production resulting from the following causes occurring within the insurance period:

(1) Adverse weather conditions;
(2) Fire;
(3) Insects;
(4) Plant disease;
(5) Wildife;
(6) Earthquake;
(7) Volcanic eruption; or
(8) If applicable, failure of the irrigation water supply due to an unavoidable cause occurring after the beginning of planting;

unless those causes are excepted, excluded, or limited by the actuarial table or subsection 9.e.(7).

b. We will not insure against any loss of production due to:

(1) The neglect, mismanagement, or wrongdoing by you, any member of your household, your tenants, or employees;
(2) The failure to follow recognized good popcorn farming practices or the grower provisions of the popcorn contract;
(3) The impoundment of water by any governmental, public, or private dam or reservoir project:
(4) Damage resulting from frost or freeze after the date designated by the actuarial table;
(5) The failure or breakdown of irrigation equipment or facilties;
(6) The failure to follow recognized good popcorn irrigation practices; or
(7) Any cause not specified in subsection 1.a. as an insured loss.

2. Crop, acreage, and share insured.

a. The crop insured will be popcorn which is planted for harvest, grown on insured acreage, and for which a guarantee and premium rate are set by the actuarial table.

b. The acreage insured for each crop year will be popcorn planted on insurable acreage as designated by the actuarial table and in

which you have a share, as reported by you or as determined by us, whichever we elect.

c. The insured share is your share as landlord, owner-operator, or tenant in the insured popcorn at the time of planting. However, only for the purpose of determining the amount of indemnity, your share will not exceed your share on the earlier of:

(1) The time of loss; or

(2) The beginning of harvest.

d. We do not insure any acreage:

(1) Of popcorn not grown under a contract executed with a processor or excluded from the processor contract for, or during, the crop year. (The contract must be executed and effective before you report your acreage.);

(2) Which is destroyed, it is practical to replant to popcorn, and such acreage is not replanted;

(3) If the farming practices carried out are not in accordance with the farming practices for which the premium rates have been established;

(4) Which is irrigated and an irrigated practice is not provided by the actuarial table unless you elect to insure the acreage as nonirrigated by reporting it as insurable under section 3;

(5) Initially planted after the final planting date set by the actuarial table unless you agree, in writing, on our form to coverage reduction;

(6) Of volunteer popcorn;

(7) Planted to a type or variety of popcorn not established as adapted to the area or excluded by the actuarial table;

(8) Planted with a crop other than popcorn; or

(9) Planted for the development or production of hybrid seed or planted for experimental purposes.

e. If insurance is provided for an irrigated practice, you must report as irrigated only the acreage for which you have adequate facilities and water at the time of planting to carry out a good popcorn irrigation practice.

f. We may limit the insured acreage to any acreage limitation established under any Act of Congress, if we advise you of the limit prior to planting.

g. An instrument in the form of a "lease" under which you retain possession of the land on which the popcorn is grown and which provides for delivery of the popcorn under certain conditions and at a stipulated price will, for the purpose of this contract, be treatred as a contract under which you have the share in the popcorn.

3. Report of acreage, share, and practice.

You must report on our form:

a. All the acreage of popcorn planted in the county in which you have a share;

b. The practice; and

c. Your share at the time of planting.

You must designate separately any acreage that is not insurable. You must report if you do not have a share in any popcorn planted in the county. This report must be submmitted annually on or before the reporting date established by the actuarial table. All indemnities may be determined on the basis of information you submit on this report. If you do not submit this report by the reporting date, we may elect to determine, by unit, the insured acreage, share, and practice or we may deny liability on any unit. Any report submitted by you may be revised only upon our approval.

4. Production guarantees, coverage levels, and prices for computing indemnities.

a. The production guarantees, coverage levels, and prices for computing indemnities are contained in the actuarial table.

b. Coverage level 2 will apply if you do not elect a coverage level.

c. You may change the coverage level and price election on or before the sales closing date set by the actuarial table for submitting applications for the crop year.

d. You must furnish a report of production to us for the previous crop year prior to the sales closing date for the subsequent crop year as established by the acturarial table. If you do not provide the required production report we will assign a yield for the crop year for which the report is not furnished. The production report or assigned yield will be used to compute your production history for the purpose of determining your guarantee for the subsequent crop year. The yield assigned by us will not be more than 75% of the yield assigned for the purpose of determining your guarantee for the present crop year. If you have filed a claim for the previous crop year, the yield determined in adjusting your indemnity claim will be used as your production report.

5. Annual Premium.

a. The annual premium is earned and payable at the time of planting. The amount is computed by multiplying the production guarantee times the price election, times the premium rate, times the insured acreage, times your share at the time of planting.

b. Interest will accrue at the rate of one and one-half percent (1½%) simple interest per calendar month, or any part thereof, on any unpaid premium balance starting on the first day of the month following the first premium billing date.

6. Deductions for debt.

Any unpaid amount due us may be deducted from any indemnity payable to you, or from a replanting payment if the billing date has passed on the date you are paid the replanting payment, or from any loan or payment due you under any Act of Congress or program administered by the United States Department of Agriculture or its Agencies.

7. Insurance period.

Insurance attaches when the popcorn is planted and ends at the earliest of:

a. Total destruction of the popcorn;

b. Harvest;

c. Final adjustment of a loss; or

d. December 10 of the calendar year in which the popcorn is normally harvested.

8. Notice of damage or loss.

a. In case of damage or probable loss:

(1) You must give us written notice if:

(a) You want our consent to replant popcorn damaged due to any insured cause (see subsection 9.f.);

(b) During the period before harvest, the popcorn on any unit is damaged and you decide not to further care for it or harvest any part of it;

(c) You want our consent to put the acreage to another use; or

(d) After consent to put acreage to another use is given, additional damage occurs.

(2) Insured acreage may not be put to another use until we have appraised the popcorn and given written consent. We will not consent to another use until it is too late to replant. You must notify us when such acreage is replanted or put to another use.

(3) You must give us notice of probable loss at least 15 days before the beginning of harvest if you anticipate a loss on any unit.

(4) If probable loss is determined within 15 days prior to or during harvest, immediate notice must be given. A representative sample of the unharvested popcorn (at least 10 feet wide and the entire length of the field) must remain unharvested for a period of 15 days from the date of notice, unless we give you written consent to harvest the sample.

(5) In addition to the notices required by this section, if you are going to claim an indemnity on any unit, you must give us notice not later than 10 days after the earliest of:

(a) Total destruction of the popcorn on the unit;

(b) Harvest of the unit; or

(c) December 10 of the crop year.

b. You may not destroy or replant any of the popcorn on which a replanting payment will be claimed until we give written consent.

c. You must obtain written consent from us before you destroy any of the popcorn which is not to be harvested.

d. We may reject any claim for indemnity if you fail to comply with any of the requirements of this section or section 9.

9. Claim for indemnity.

a. Any claim for indemnity on a unit must be submitted to us on our form not later than 60 days after the earliest of:

(1) Total destruction of the popcorn on the unit;

(2) Harvest of the unit; or

(3) December 10 of the crop year.

b. We will not pay any indemnity unless you:

(1) Establish the total production of the popcorn on the unit and that any loss of production has been directly caused by one or more of the insured causes during the insurance period; and

(2) Furnish all information we require concerning the loss.

c. The indemnity will be determined on each unit by:

(1) Multiplying the insured acreage by the production guarantee;

(2) Subtracting therefrom the total production of popcorn to be counted (see § 9.e.);

(3) Multiplying the remainder by the price election; and

(4) Multiplying this result by your share.

d. If the information reported by you under section 3 of this policy results in a lower premium than the actual premium determined to be due, the production guarantee on the unit will be computed on the information reported, but all production from insurable acreage, whether or not reported as insurable, will count against the production guarantee.

e. The total production (in pounds) to be counted for a unit will include all harvested and appraised production.

(1) Mature popcorn production:

(a) Which otherwise is not eligible for quality adjustment will be reduced .12

percent for each .1 percentage point of moisture in excess of 15.0 percent; or

(b) Which, due to insurable causes, is not of merchantable popcorn quality and is rejected by the processor, will be adjusted by:

(i) Dividing the value per pound of the damaged popcorn by the contract price per pound for undamaged popcorn; and

(ii) Multiplying the result by the number of pounds of such popcorn.

(2) Any production from yellow or white dent corn will be counted as popcorn on a weight basis.

(3) Any ear production for which we cannot determine a shelling factor will be considered to have an 80 percent shelling factor.

(4) Appraised production to be counted will include:

(a) Unharvested production on harvested acreage and potential production lost due to uninsured causes;

(b) Not less than the guarantee for any acreage which is abandoned or put to another use without our prior written consent or damaged solely by an uninsured cause; and

(c) Any appraised production on unharvested acreage.

(5) Any appraisal we have made on insured acreage for which we have given written consent to be put to another use will be considered production unless such acreage is:

(a) Not put to another use before harvest of popcorn becomes general in the county;

(b) Further damaged by an insured cause and reappraised by us; or

(c) Harvested.

(6) The amount of production of any unharvested popcorn may be determined on the basis of field appraisals conducted after the end of the insurance period.

(7) If you elect to exclude hail and fire as insured causes of loss and the popcorn is damaged by hail or fire, appraisals will be made in accordance with Form FCI–78, "Request to Exclude Hail and Fire."

f. A replanting payment may be made on any insured popcorn replanted after we have given consent and the acreage replanted is at least the lesser of 20 acres or 20 percent of the insured acreage for the unit as determined on the final planting date.

(1) No replanting payment will be made on acreage:

(a) On which our appraisal exceeds 90 percent of the guarantee;

(b) Initially planted prior to the date established by the actuarial table; or

(c) On which a replanting payment has been made during the current crop year.

(2) The replanting payment per acre will be your actual cost per acre for replanting, but will not exceed 150 pounds multiplied by the price election, multiplied by your share.

If the information reported by you results in a lower premium than the actual premium determined to be due, the replanting payment will be reduced proportionately.

g. You may not abandon any acreage to us.

h. Any suit against us for an indemnity must be brought in accordance with the provisions of 7 U.S.C. 1508(c). You must bring suit within 12 months of the date notice of denial of the claim is received by you.

i. An indemnity will not be paid unless you comply with all policy provisions.

j. We have a policy for paying your indemnity within 30 days of our approval of your claim, or entry of a final judgment against us. We will, in no instance, be liable for the payment of damages, attorney's fees, or other charges in connection with any claim for indemnity, whether we approve or disapprove such claim. We will, however, pay simple interest computed on the net indemnity ultimately found to be due by us or by a final judgment from and including the 61st day after the date you sign, date, and submit to us the properly completed claim for indemnity form, if the reason for our failure to timely pay is not due to your failure to provide information or other material necessary for the computation or payment of the indemnity. The interest rate will be that established by the Secretary of the Treasury under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611), and published in the **Federal Register** semiannually on or about January 1 and July 1. The interest rate to be paid on any indemnity will vary with the rate announced by the Secretary of the Treasury.

k. If you die, disappear, or are judicially declared incompetent, or if you are an entity other than an individual and such entity is dissolved after the crop is planted for any crop year, any indemnity will be paid to the persons determined to be beneficially entitled thereto.

l. If you have other fire insurance, fire damage occurs during the insurance period, and you have not elected to exclude fire insurance from this policy, we will be liable for loss due to fire only for the smaller of the amount:

(1) Of indemnity determined pursuant to this contract without regard to any other insurance; or

(2) By which the loss from fire exceeds the indemnity paid or payable under such other insurance. For the purpose of this subsection, the amount of loss from fire will be the difference between the fair market value of the production on the unit before the fire and after the fire.

10. Concealment or fraud.

We may void the contract on all crops insured without affecting your liability for premiums or waiving any right, including the right to collect any amount due us if, at any time, you have concealed or misrepresented any material fact or committed any fraud relating to the contract. Such voidance will be effective as of the beginning of the crop year with respect to which such act or omission occurred.

11. Transfer of right to indemnity on insured share.

If you transfer any part of your share during the crop year, you may transfer your right to an indemnity. The transfer must be on our form and approved by us. We may collect the premium from either you or your transferee or both. The transferee will have all rights and responsibilities under the contract.

12. Assignment of indemnity.

You may assign to another party your right to an indemnity for the crop year, only on our form and with our approval. The assignee will have the right to submit the loss notices and forms required by the contract.

13. Subrogation. (Recovery of loss from a third party.)

Because you may be able to recover all or a part of your loss from someone other than us, you must do all you can to preserve any such right. If we pay you for your loss, then your right of recovery will at our option belong to us. If we recover more than we paid you plus our expenses, the excess will be paid to you.

14. Records and access to farm.

You must keep, for 2 years after the time of loss, records of the harvesting, storage, shipment, sale, or other disposition of all of the popcorn produced on each unit including separate records showing the same information for production from any uninsured acreage. Failure to keep and maintain such records may, at our option, result in cancellation of the contract prior to the crop year to which the records apply, assignment of production to units by us, or a determination that no indemnity is due. Any person designated by us will have access to such records and the farm for purposes related to the contract.

15. Life of contract; cancellation and termination.

a. This contract will be in effect for the cropyear specified on the application and may not be canceled by you for such crop year. Thereafter, the contract will continue in force for each succeeding crop year unless canceled or terminated as provided in this section.

b. This contract may be canceled by either you or us for any succeeding crop year by giving written notice on or before the cancellation date preceding such crop year.

c. This contract will terminate as to any crop year if any amount due us on this or any other contract with you is not paid on or before the termination date preceding such crop year for the contract on which the amount is due. The date of payment of the amount due if deducted from:

(1) An indemnity, will be the date you sign the claim; or

(2) Payment under another program administered by the United States Department of Agriculture, will be the date both such other payment and setoff are approved.

d. The cancellation and termination dates are April 15.

e. If you die or are judicially declared incompetent, or if you are an entity other than an individual and such entity is dissolved, the contract will terminate as of the date of death, judicial declaration, or dissolution. If such event occurs after insurance attaches for any crop year, the contract will continue in force through the crop year and terminate at the end thereof. Death of a partner in a partnership will dissolve the partnership unless the partnership agreement provides otherwise. If two or more persons having a joint interest are insured jointly, death of one of the persons will dissolve the joint entity.

f. The contract will terminate if no premium is earned for 5 consecutive years.

16. Contract Changes.

We may change any terms and provisions of the contract from year to year. If your price election at which indemnities are computed is no longer offered, the actuarial table will provide the price election which you are

deemed to have elected. All contract changes will be available at your service office by December 31 preceding the cancellation date. Acceptance of changes will be conclusively presumed in the absence of notice from you to cancel the contract.

17. Meaning of terms.

For the purposes of popcorn crop insurance:

a. "Actuarial table" means the forms and related material for the crop year approved by us which are available for public inspection in your service office, and which show the production guarantees, coverage levels, premium rates, prices for computing indemnities, practices, insurable and uninsurable acreage, and related information regarding popcorn insurance in the county.

b. "County" means the county shown on the application and any additional land located in a local producing area bordering on the county, as shown by the actuarial table.

c. "Crop year" means the period within which the popcorn is normally grown and is designated by the calendar year in which the popcorn is normally harvested.

d. "Harvest" means the completion of removing the grain from the stalk either by hand or machine.

e. "Insurable acreage" means the land classified as insurable by us and shown as such by the actuarial table.

f. "Insured" means the person who submitted the application accepted by us.

g. "Loss ratio" means the ratio of indemnity to premium.

h. "Person" means an individual, partnership, association, corporation, estate, trust, or other legal entity, and wherever applicable, a State or a political subdivision or agency of a State.

i. "Replanting" means performing the cultural practices necessary to replant insured acreage to popcorn.

j. "Service office" means the office servicing your contract as shown on the application for insurance or such other approved office as may be selected by you or designated by us.

k. "Tenant" means a person who rents land from another person for a share of the popcorn or a share of the proceeds therefrom.

l. "Unit" means all insurable acreage of popcorn in the county on the date of planting for the crop year:

(1) In which you have a 100 percent share; or

(2) Which is owned by one entity and operated by another entity on a share basis.

Land rented for cash, a fixed commodity payment, or any consideration other than a share in the popcorn on such land will be considered as owned by the lessee. Land which would otherwise be one unit may be divided according to applicable guidelines on file in your service office. Units will be determined when the acreage is reported.

Errors in reporting units may be corrected by us to conform to applicable guidelines when adjusting a loss. We may consider any acreage and share thereof reported by or for your spouse or child or any member of your household to be your bona fide share or the bona fide share of any other person having an interest therein.

18. Descriptive headings.

The descriptive headings of the various policy terms and conditions are formulated for convenience only and are not intended to affect the construction or meaning of any of the provisions of the contract.

19. Determinations.

All determinations required by the policy will be made by us. If you disagree with our determinations, you may obtain reconsideration of or appeal those determinations in accordance with the Appeal Regulations, (7 CFR Part 400-Subpart J).

20. Notices.

All notices required to be given by you must be in writing and received by your service office within the designated time unless otherwise provided by the notice requirement. Notices required to be given immediately may be by telephone or in person and confirmed in writing. Time of the notice will be determined by the time of our receipt of the written notice.

Done in Washington, DC, on July 15, 1986.

E. Ray Fosse,

Manager, Federal Crop Insurance Corporation.

[FR Doc. 86-17506 Filed 8-1-86; 8:45 am]

BILLING CODE 3410-08-M

Agricultural Marketing Service

7 CFR Part 1136

Milk in the Great Basin Marketing Area; Notice of Proposed Suspension of a Provision of the Order

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Proposed suspension of rule.

SUMMARY: This notice invites written comments on a proposal to continue a suspension of a provision of the Great Basin Federal milk order. The provision proposed to be suspended is the requirement that milk diverted from a distributing plant be included in the plant's receipts for purposes of determining whether the plant is qualified for pool status under the Great Basin Federal milk order. The proposed continued suspension would be effective during August 1986 and until a proceeding to consider a merger of the Lake Mead and Great Basin milk orders is completed. The continued suspension of the provision was requested by Western General Dairies, Inc., a cooperative association representing most of the producers supplying the market, in order to prevent uneconomic movements of milk.

DATE: Comments are due no later than August 11, 1986.

ADDRESS: Comments (two copies) should be filed with the Dairy Division, Agricultural Marketing Service, Room 2968, South Building, U.S. Department of Agricultural, Washington, DC 20250.

FOR FURTHER INFORMATION CONTACT: Constance M. Brenner, Marketing Specialist, Dairy Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, DC 20250, (202) 447-7311.

SUPPLEMENTARY INFORMATION: Prior document in this proceeding:

Notice of Hearing: Issued February 6, 1986; published February 11, 1986 (51 FR 5070).

The Regulatory Flexibility Act (5 U.S.C. 601-612) requires the Agency to examine the impact of the proposed rule on small entities. Pursuant to 5 U.S.C. 605(b), the Administrator of the Agricultural Marketing Service has certified that this action will not have a significant economic impact on a substantial number of small entities. Such action would lessen the regulatory impact of the order on certain milk handlers and 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.

Notice is hereby given that, pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601 *et seq.*), the suspension of the following provision of the order regulating the handling of milk in the Great Basin marketing area is being considered for August 1986, and continuing until a hearing proceeding to consider a merger of the Lake Mead and Great Basin milk orders is completed:

In 7 CFR 1136.7(a) the language "or diverted therefrom as producer milk to a nonpool plant pursuant to § 1136.13".

All persons who want to send written data, views or arguments about the proposed suspension should send two copies of them to the Dairy Division, Agricultural Marketing Service, Room 2968, South Building, U.S. Department of Agriculture, Washington, DC 20250, by the 7th day after publication of this notice 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 and include August 1986 in the suspension period.

The comments that are sent will be made available for public inspection in the Dairy Division during normal business hours (7 CFR 1.27(b)).

Statement of Consideration

The proposed continued suspension would remove from the definition of a pool distributing plant the requirement that milk diverted from a distributing

plant be included in the plant's receipts for purposes of determining whether the plant is qualified for pool status under the Great Basin Federal milk order. Continuation of the suspension was requested by Western General Dairies, Inc., a cooperative association which supplies most of the market's fluid milk needs and handles most of the market's reserve supplies. Western General also operates pool distributing plants and manufacturing plants in the Great Basin marketing area. The current suspension of the requested language has been in effect since February 1986.

The cooperative based its request for continued suspension on the record of a public hearing held March 18–20, 1986, in Salt Lake City, Utah, to consider its proposal to merge the Great Basin and Lake Mead orders. Until the hearing proceeding is completed, the cooperative requests that the language including milk diverted from distributing plants to manufacturing plants in the distributing plants' receipts for purposes of determining whether the plant is qualified for pooling be suspended to assure that all of the member milk of the cooperative is eligible to participate in marketwide pooling and pricing under the Great Basin Federal order. The cooperative contends that the hearing record supports such action.

List of Subjects in 7 CFR Part 1136

Milk marketing orders, Milk, Dairy products.

The authority citation for 7 CFR Part 1136 continues to read as follows:

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

Signed at Washington, DC, on: July 29, 1986.

William T. Manley,

Deputy Administrator, Marketing Programs.

[FR Doc. 86–17443 Filed 8–1–86; 8:45 am]

BILLING CODE 3410–02–M

DEPARTMENT OF JUSTICE

Immigration and Naturalization Service

8 CFR Parts 214 and 248

Nonimmigrant Classes; Change of Nonimmigrant Classification

AGENCY: Immigration and Naturalization Service, Justice.

ACTION: Proposed rule.

SUMMARY: This proposed regulation is the first refinement of a major revision to the student regulatory package published on April 5, 1983 at 48 FR 14575. This proposed regulation refines some of the areas which have been cumbersome and have led to confusion. It retains and expands the basic thrust of the major revision, in that it eliminates burdensome paperwork, and maintains control over the students by more effective use of institutional sponsorship of the students by the schools.

DATES: Comments must be received on or before October 3, 1986.

ADDRESSES: Submit written comments, in duplicate, to the Director, Policy Directives and Instructions, Immigration and Naturalization Service, 425 I Street NW., Room 2011, Washington, DC 20536.

FOR FURTHER INFORMATION CONTACT:

For General Information: Loretta J. Shogren, Director, Policy Directives and Instructions, Immigration and Naturalization Service, 425 I Street NW., Washington, DC 20536, Telephone: (202) 633–3048

For Specific Information: Joseph D. Cuddihy, Immigration Examiner, Immigration and Naturalization Service, 425 I Street NW., Washington, DC 20536, Telephone: (202) 633–3320.

SUPPLEMENTARY INFORMATION: The Immigration and Naturalization Service proposes to revise the regulations pertaining to nonimmigrant students in educational institutions in the United States. There are four general areas of proposed change.

First, the proposed regulation changes the definition of duration of status. Under the present regulation a student progressing from one educational level to the next highest level must receive permission to do so from the Service. This causes a number of applications of a routine nature to be submitted to the Service by nonimmigrant students following a normal progression of studies. The proposed regulation redefines duration of status to be all levels of study, but places limitations on the length of time a student may remain in any one level of study. Thus, the Service has eliminated applications for extension of stay for students who are progressing from one educational level to another, but has placed a control over students who take an inordinate length of time to complete one level of study.

Second, the proposed regulation changes the procedures for a nonimmigrant student to transfer between schools. The present regulation is confusing to both schools and nonimmigrant students, in that it requires two different procedures depending upon whether the student is transferring schools within the same educational level, or is transferring schools and moving up an educational level.

In addition, the current procedures followed by both schools involved in a transfer within an educational level are confusing. The proposed regulation standardizes the procedures to be used in both transfer processes. It also eliminates some of the steps required by schools to effect a student transfer.

Third, the proposed regulation streamlines the process for a nonimmigrant student to obtain a first period of practical training upon graduation. The current regulation requires a decision by the Service to be made on practical training after a recommendation is made by the designated school official. Often, there is inconsistency between the recommendation and the decision. In addition, the time period necessary for the Service to make the decision is often too long for the prospective employer to hold the job for the student.

The proposed regulation would add the requirement that a second school official recommend the practical training experience, but would allow a designated school official to authorize the acceptance of the first period of a practical training for the student. The Service would continue to decide upon a continuation of the practical training experience.

Fourth, the proposed regulation would require the Service to deny any change of status request for change of nonimmigrant status from student to temporary worker (H classification) when the student has engaged in practical training after completion of studies. The Service believes the practical training experience is being abused by some individuals to gain temporary and ultimately permanent employment in the United States rather than to gain practical experience to be used upon return to the home country. The proposed regulation would not allow an applicant to change from student status to temporary worker status in the United States if he or she has been authorized practical training after completion of studies. The proposed regulation would still allow a student who has not engaged in practical training after completion of studies to change to temporary worker status, and would still allow the student who had engaged in practical training to go outside the United States to obtain a nonimmigrant visa in a temporary worker category at a United States embassy or consulate.

The proposed regulations were developed in part through a series of meetings between the Service and the

National Association for Foreign Student Affairs (NAFSA). These meetings were held to discuss areas of difficulty and confusion with the current regulations as perceived within the academic community and were scheduled as the result of two documents published by NAFSA's Task Force on Regulatory Reform, "Regulatory Roadblocks to International Educational Exchange", and "Plan of Implementation for a New System of Students/Schools Regulations Governing Nonimmigrant Students". These documents provided a beginning point for the meetings.

In accordance with 5 U.S.C. 605(b), the Commissioner certifies that this rule would not have a significant economic impact on a substantial number of small entities. While portions of the rule deal with recordkeeping and reporting requirements, compliance with them would not result in a significant effect on the economy or operation of the affected institutions or individuals. This rule, therefore, would not be a major rule within the meaning of section 1(b) of E.O. 12291.

List of Subjects

8 CFR Part 214

Administrative practice and procedure, Aliens, Employment, Schools, Students.

8 CFR Part 248

Administrative practice and procedure, Aliens.

For the reasons set forth in the preamble, Chapter I of Title 8 of the Code of Federal Regulations would be amended as set forth below:

PART 214—NONIMMIGRANT CLASSES

1. The authority citation for Part 214 is revised to read as follows:

Authority: Secs. 101, 103 and 214 of the Immigration and Nationality Act, as amended, 8 U.S.C. 1101, 1103 and 1184.

§ 214.2 [Amended]

2. In 214.2, paragraphs (f)(4)(ii), (5), (6)(ii) through (v), (7), (8), and (10) would be revised, and a new undesignated paragraph would be added to follow paragraph (6)(v) to read as follows:

* * * * *

(f) * * *

(4) * * *

(ii) *Student who intends to transfer or has transferred between schools.* If an F–1 student has transferred or intends to transfer schools and has been issued an I–20A–B by the school to which he has or intends to transfer, the name of the new school does not have to be specified on the student's visa to allow reentry into the United States after a temporary absence.

(5) *Duration of status—(i) General.* For purposes of this chapter, duration of status means the period during which the student is pursuing a full course of studies in any educational program (e.g., elementary or high school, bachelor's or master's degree, doctoral or post-graduate program) and any periods of authorized practical training, plus sixty days within which to depart from the United States. Exceptions to this definition are listed in paragraph (f)(5)(iv) of this section. An F–1 student who continues from one educational level to another is considered to be remaining in status, provided the transition to the new educational program is accomplished according to the transfer procedures outlined in paragraph (f)(8) of this section. An F–1 student at an academic institution is considered to be in status during the summer if the student is eligible, and intends, to register for the next term. A student attending a school on a quarter or trimester calendar who takes only one vacation a year during any one of the quarters or trimesters instead of during the summer, is considered to be in status during that vacation provided the student is eligible, and intends, to register for the next term and the student has completed the equivalent of an academic year prior to taking the vacation. A student who is compelled by illness to interrupt or reduce a course of study is considered in status during the illness. The student must resume a full course of study upon recovery.

(ii) *Condition.* Subject to the condition that the alien's passport is valid for a minimum period of six months at all times while in the United States (including any automatic revalidation accorded by agreement between the United States and the country which issued the alien's passport) unless the alien is exempt from the requirement for presentation of a passport:

(A) Any alien admitted to the United States as an F–1 student is to be admitted for duration of status as defined in paragraph (f)(5)(i) of this section; and

(B) Any alien granted a change of nonimmigrant classification to that of an F–1 student is considered to be in status for duration of status as defined in paragraph (f)(5)(i) of this section.

(iii) *Conversion to duration of status.* Any F–1 student in a college, university, seminary, conservatory, academic institution, or in a language training program who is pursuing a full course of study and is otherwise in status as a student, is automatically granted duration of status. The dependent spouse and children of the students are also automatically granted duration of status if they are maintaining F–2 status. Any alien converted to duration of status under this paragraph need not present Form I–94 to the Service. This paragraph constitutes official notification of conversion to duration of status. The Service will issue a new Form I–94 to the alien when the alien comes into contact with the Service.

(iv) *Exceptions.* Students who are out of status must apply for reinstatement as stated in paragraph (f)(12) of this section. A student is considered out of status when according to the date on Form I–20A–B issued at the beginning of the program his/her:

(A) Studies are expected to be completed in two years or less, and the course is not completed within six months after the date studies are expected to be completed.

(B) Studies are expected to be completed in more than two but within four years, but the course is not completed within one year after the date the studies are expected to be completed.

(C) Studies are expected to be completed in more than four years, but the course is not completed within eighteen months after the date the studies are expected to be completed.

(6) * * *

(ii) Undergraduate study at a college or university, certified by a school official to consist of at least twelve semester or quarter hours of instruction per academic term in those institutions using standard semester, trimester, or quarter hour systems, where all undergraduate students who are enrolled for a minimum of twelve semester or quarter hours are charged full-time tutition or are considered full-time for other administrative purposes, or its equivalent (as determined by the district director in the school approval process), except when the student needs a lesser course load to complete the course of study during the current term;

(iii) Study in a post-secondary language, liberal arts, fine arts or other non-vocational program at a school which confers upon its graduates recognized associate or other degrees or has established that its credits have been and are accepted unconditionally by at least three institutions of higher learning within category (1) or (2) of § 214.3(c), and which has been certified by a designated school official to consist of at least twelve clock hours of instruction a week, or its equivalent as determined by the district director in the school approval process;

(iv) Study in any other language, liberal arts, fine arts, or other nonvocational training program, certified by a designated school official to consist of at least eighteen clock hours of attendance a week provided that the dominant part of the course of study consists of classroom instruction and twenty-two clock hours a week provided that the dominant part of the course of study consists of laboratory work; or

(v) Study in a primary or academic high school curriculum certified by a designated school official to consist of class attendance for not less than the minimum number of hours a week perscribed by the school for normal progress towards graduation.

An F–1 student may engage in less than a full course of study when directed to do so by a designated official for valid academic reasons, limited to English language difficulties; unfamiliarity with American teaching methods or reading requirements; or improper course level placement. A student is not allowed to take less than twelve semester or quarter hours in more than one term during the program of studies. Although permission of the Service is not required to direct a student to take less than twelve semester or quarter hours, whether a student is, in fact, considered to be pursuing a full course of studies is subject to review and approval by the Service.

(7) *Extension of stay.* Any student who has been in student status for eight consecutive academic years must request an extension of stay from the Service. The application must be submitted to the Service on Form I–538. A student who has submitted an application for extension of stay may continue in student status until a decision is rendered by the Service. Once a student has been granted an extension of stay, he or she does not have to request another extension until an additional eight-year period has elapsed.

(8) *School Transfer*—(i) *Eligibility.* An F–1 student is eligible to transfer to another school if the student:

(A) Is a bona fide nonimmigrant student;

(B) Has been pursuing a full course of study at the school the student was last authorized to attend during the term immediately preceding the transfer (or the last term preceding a vacation as provided in paragraph (f)(5)(i) of this section);

(C) Intends to pursue a full course of study at the school to which the student intends to transfer; and

(D) Is financially able to attend the school to which the student intends to transfer.

(ii) *Transfer Procedure.* The following procedures must be followed before a transfer will be considered to be completed:

(A) The F–1 student must obtain a properly completed Form I–20A–B from the school to which the student intends to transfer. The student must inform the deisgnated school official at the school the student is currently attending of the intention to transfer;

(B) The student must enroll in the new school in the first term after leaving the previous school or the first term after vacation as provided in paragraph (f)(5)(i) of this section. The student must complete page 2 of Form I–20A–B as instructed and submit the Form I–20A–B to a designated school official of the new school within fifteen days after the date the student begins classes at the new school; and

(C) The designated school official receiving the Form I–20A–B must:

(*1*) Sign the reverse side of Form I–20 ID Copy in the space provided for designated school official's signature, thereby acknowledging the student's attendance in class;

(*2*) Return the Form I–20 ID Copy to the student;

(*3*) Add the name of the school from which the student has transferred to the front page of Form I–20A–B, item 2(C), and initial the addition; and

(*4*) Submit the Form I–20A–B to the Service's Data Processing Center within thirty days of receipt from the student.

(iii) *Students not pursuing a full course of study.* A student who wants to transfer to another school but has not pursued a full course of study at the school the student was last autorized to attend must apply for and be granted reinstatement to student status in accordance with the provisions of paragraph (f)(12) of this section before he or she may request a transfer.

(9) * * *

(10) *Practical training*—(i) *Practical training prior to completion of studies*—(A) *General.* Temporary employment for practical training prior to completion of studies may be authorized only:

(*1*) After completion of all course requirements for the degree (excluding thesis or equivalent), if the student is in a bachelor's, master's or doctoral degree program;

(*2*) If the student is attending a high school, college, university, seminary, or conservatory which requires or makes optional practical training of candidates for a degree in that field or for a high school diploma; or

(*3*) During the student's annual vacation if the student is attending a college, university, seminary, or conservatory. A student may not be granted permission to accept practical training prior to completion of studies unless the student has been in student status for nine months. A student in a language training program may not be granted permission to accept practical training after completion of studies. A student may not be granted practical training exceeding twelve months in the aggregate prior to completion of studies.

(B) *Making a request to accept practical training prior to completion of studies.* A student must submit a request for practical training prior to completion of a course of study to the designated school official of the school the student is authorized to attend. The request must consist of:

(*1*) A completed request for practical training on Form I–538;

(*2*) Form I–20 ID copy; and

(*3*) A certification from the head of the student's academic department or the professor who is the student's academic advisor stating that upon his or her information and belief, employment comparable to the proposed employment is not available to the student in the country of the student's foreign residence.

(C) *Action upon request to accept practical training prior to completion of studies.* The designated school official must:

(*1*) Certify on Form I–538 that the proposed employment is for the purpose of practical training, that it is related to the student's course of study, and that upon the designated school official's information and belief, employment comparable to the proposed employment is not available to the student in the country of the student's foreign residence;

(*2*) Endorse Form I–538 to show that practical training from (date) to (date) has been authorized, and send the form to the Service's Data Processing Center; and

(*3*) Endorse Form I–20 ID copy with the endorsement "practical training prior to completion of studies from (date) to (date) authorized", and return the form to the student.

A student may engage in practical training only after receiving the Form I–20 ID copy endorsed to that effect.

(ii) *Practical training after completion of studies*—(A) *General.* Temporary employment for practical training after completion of studies may be authorized only:

(1) After completion of the course of study, if the student intends to engage in only one course of study, or

(2) After completion of at least one course of study, if the student intends to engage in more than one course of study.

A student may not be granted permission to accept practical training after completion of studies unless the student has been in student status for nine months. A student in a language training program may not be granted permission to accept practical training after completion of studies. After completion of studies, a student may not be granted practical training exceeding twelve months. Practical training after completion of studies will be authorized in two periods; the first period of six months to be certified by the designated school official, and the second period to be authorized by the Service of sufficient time so as total employment does not exceed twelve months.

(B) *Request to accept a first period of practical training after completion of studies.* A student must submit a request to accept a first period of practical training to the designated school official no more than sixty days prior to completion of the course of study, but less than thirty days after completion of the course of study. The request for certification must consist of:

(1) A completed request for practical training on Form I–538;

(2) Form I–20 ID copy; and

(3) A certification from the head of the student's academic department or the professor who is the student's academic advisor stating that upon his or her information and belief, employment comparable to the proposed employment is not available to the student in the country of the student's foreign residence.

(C) *Action upon a request to accept a first period of practical training after completion of studies.* The designated school official must:

(1) Certify on Form I–538 that the proposed employment is for the purposes of practical training, that it is related to the student's course of study, and that upon the designated school official's information and belief, employment comparable to the proposed employment is not available to the student in the country of the student's foreign residence;

(2) Endorse Form I–538 to show that practical training from (date) to (date) has been authorized, and send the form to the Service's Data Processing Center; and

(3) Endorse Form I–20 ID copy with the endorsement "First period of practical training authorized from (date) to (date)" and return the form to the student.

A student may engage in practical training only after receiving the Form I–20 ID copy endorsed to that effect.

(D) *Computation dates for practical training.* For purposes of computation, the "beginning" date of the first period will be the date of completion of studies and the "ending" date will be a date six months after the date of completion of studies. The actual date of commencement of practical training will be determined by the Service at the time of application for a second period of practical training. The actual date of commencement of practical training will be the date the student begins employment, or a date sixty days after the date of completion of studies, whichever is earlier.

(iii) *Second period to continue practical training after completion of studies*—(A) *General.* A second period to continue practical training after completion of studies may not be granted unless the student has actually begun qualified employment during the first authorized period. A student shall submit his or her application for a second period to continue practical training immediately after he or she begins qualified employment.

(B) *Request for a second period to continue practical training after completion of studies.* A student must submit a request for a second period to continue practical training. The request must be submitted to the Service office having jurisdiction over the actual place of employment. The request must consist of:

(1) A completed request for practical training on Form I–538, properly certified by the designated school official;

(2) Form I–20 ID copy; and

(3) A letter from the applicant's employer stating the applicant's occupation, the exact date employment began, the date employment will terminate, and describing in detail the duties of the applicant in the employment.

The letter from the student's employer must be seen by the designated school official before the designated school official's certification is made. There is no requirement that the student re-establish to the Service that the employment engaged in is not available to the student in the country of the student's foreign residence.

(C) *Action upon request for a second period to continue practical training after completion of studies.* The district director must determine that the student began qualified employment during the first period of practical training, that the stated employment is related to the student's course of study, and that the student an complete the practical training within the maximum time authorized. Upon approval of the student's request to continue practical training the district director must—

(1) Endorse From I–538 with the approval stamp, show that practical training from (date) to (date) has been authorized, and send the Form I–538 to the Service's Data Porcessing Center; and

(2) Endorse Form I–20 ID copy with the endorsement "Second period of practical training authorized from (date) to (date)" and return the form to the student.

A student who has been authorized a first period of practical training may continue to be employed while application for a second period of practical training is pending until he/she receives a decision from the Service. A student may in no case continue employment beyond twelve months.

(D) *Computation dates for practical training.* The actual "beginning" date of the second period of practical training will be the end date of the first period. The "end" date of the second period will be the date twelve months after the exact date employment began, or fourteen months after the date of completion of studies, whichever is earlier. The student therefore has a maximum of twelve months work authorized.

(1) *Alternate work/study programs.* An F–1 student enrolled in a college, university, conservatory or seminary having an alternate work/study program as a part of the regular curriculum may participate in the program without obtaining a change of nonimmigrant status and without obtaining permission to accept employment. Periods of actual off-campus employment which are part of a work/study program, however, must be deducted from the total of twelve months practical training time before graduation for which the student is eligible. A student who participates in an alternate work/study program is not eligible for practical training after completion of studies.

* * * * *

3. In 214.3, paragraph (g)(1) (i) through (xi) would be revised, (g)(1)(xii) would be removed, and a new undesignated paragraph would be added to follow paragraph (g)(1)(xi) to read as follows:

§ 214.3 Petitions for approval of schools.

(g) * * *

(1) * * *

(i) Name.

(ii) Date and place of birth.

(iii) Country of citizenship.

(iv) Address.

(v) Status, i.e., full-time or part-time.

(vi) Date of commencement of studies.

(vii) Degree program and field of study.

(viii) Whether the student has been certified for practical training, and the beginning and end dates of certification.

(ix) Termination date and reason, if known.

(x) The documents referred to in paragraph (k) of this section.

(xi) The number of credits completed each semester.

A Service officer may request any or all of the above data on any individual student or class of students upon notice. This notice will be in writing if requested by the School. The school will have three work days to respond to any request for information concerning an individual student, and ten work days to respond to any request for information concerning a class of students. The Service will first attempt to gain information concerning a class of students from the Service's record system.

* * * * *

PART 248—CHANGE OF NONIMMIGRANT CLASSIFICATION

4. The authority citation for Part 248 is revised to read as follows:

Authority: Secs. 101, 103, 214, 247 and 248 of the Immigration and Nationality Act as amended; (8 U.S.C. 1101, 1103, 1184, 1257 and 1258).

5. In section 248.1, a new paragraph (e) would be added to read as follows:

§ 248.1 Eligibility.

* * * * *

(e) *Application for change of nonimmigrant classification from that of a student under section 101(a)(15)(F)(i) to that described in section 101(a)(15)(H).* A district director shall deny an application for change of nonimmigrant classification from that of an F–1 student to that of an alien temporary worker under section 101(a)(15)(H) of the Act if the student has engaged in practical training after completion of studies in accordance with § 214.2(f)(10)(ii).

Dated: June 18, 1986

Richard E. Norton,

Associate Commissioner, Examinations, Immigration and Naturalization Service.

[FR Doc. 86-17438 Filed 8-1-86; 8:45 am]

BILLING CODE 4410-10-M

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

9 CFR Part 92

[Docket No. 86-032]

Importation of Psittacine Birds

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: This document proposes to amend the regulations in 9 CFR Part 92 to (1) lengthen the period of time in which federal and commercial quarantine facilities must legband or otherwise individually identify imported psittacine birds, and (2) delete a footnote that is no longer applicable. It appears that the proposal would relieve current restrictions and clarify the regulations without increasing the risk of spreading foreign bird and poultry diseases into the United States.

DATE: Written comments must be received on or before October 3, 1986.

ADDRESS: Written comments concerning this proposed rule should be submitted to Regulatory Coordination Staff, APHIS, USDA, Room 728, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782. Comments should state that they are in response to Docket Number 86–032. Written comments received may be inspected at Room 728 of the Federal Building between 8 a.m. and 4:30 p.m., Monday through Friday, except holidays.

FOR FURTHER INFORMATION CONTACT: Mr. W. H. Ritchie, Import-Export Operations Staff, VS, APHIS, USDA, Room 766, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782, 301–436–7835.

SUPPLEMENTARY INFORMATION:

Background

The regulations in 9 CFR Part 92 (referred to below as the regulations), among other things, regulate the importation of birds into the United States to help assure that said birds are free from exotic Newcastle disease, forms of avian influenza lethal to poultry, and other communicable diseases of poultry. Specific sections of the regulations that would be affected by this proposal are:

1. Section 92.2(c), containing requirements for entry of pet birds into the United States.

2. Section 92.11(e), containing imported bird handling procedures for United States Department of Agriculture quarantine facilities.

3. Section 92.11(f), containing facility standards and imported bird handling procedures for privately operated quarantine facilities approved by the Deputy Administator, Veterinary Services, Animal and Plant Health Inspection Service, United States Department of Agriculture.

Birds Per Family Limitation

Sections 92.2(c)(1), 92.2(c)(2)(i), and 92.2(c)(3) of the current regulations are footnoted as follows:

"U.S. Public Health Service Regulations (42 CFR 71.164(e)) restrict the entry of pet psittacine birds to two birds per family per year."

This restriction was established by the United States Public Health Service (PHS) as a means of stemming the spread of psittacosis, a disease of birds that is transmittable to man. However, the incidence of disease has been very low in recent years, and psittacosis is now treatable with antibiotics. As a result, PHS no longer considers psittacosis to be a serious health hazard and, on Feb. 11, 1985, removed restrictions on psittacine birds from PHS regulations. Therefore, this document proposes to delete the above footnote and the references thereto from § 92.2(c).

Bird Identification

Imported psittacine birds are individually identified when quarantined in U.S. Department of Agriculture or approved privately operated facilities. Under current regulations, the birds must be identified with a serially numbered legband, or other suitable means of identification, within 72-hours of their entry into the quarantine facility.

The Department believes, however, that requiring individual bird identification within 72-hours of their entry into the quarantine facility is causing unreasonable and unnecessary hardships. Psittacine birds frequently arrive at quarantine facilities in bulk shipments of hundreds of birds. The current 72-hour identification requirement does not provide enough time for banding or otherwise identifying such large numbers of birds and does not take weekends into account. Thus, complying with the 72-hour identification requirement frequently results in quarantine facilities incurring extensive overtime costs.

Department veterinarians also believe that the 72-hour identification requirement places imported birds under undue stress. In fiscal year 1984, roughly 156,000 imported birds died in transit or during the minimum 30-day quarantine

required by the regulations. The major cause of these losses was stress resulting from handling and transportation. Under the current 72-hour identification requirement, birds are often not fully recovered from shipment-related stress before undergoing identification—a procedure involving the physical seizure and immobilization of the birds.

This document proposes to extend the mandatory time period for accomplishment of individual bird identifications by United States Department of Agriculture and approved privately operated quarantine facilities, from the current 72-hours to 7-days. The Department believes that this additional time would significantly reduce facility overtime costs and bird stress, without reducing the effectiveness of the identification procedure.

Executive Order 12291 and Regulatory Flexibility Act

This action has been reviewed in conformance with Executive Order 12291 and has been determined to be not a "major rule." The Department has determined that this action would not have a significant effect on the economy; would not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; and should have no significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foregin-based enterprises in domestic or export markets.

Removal of the footnoted reference would have no impact on the importation of birds into the United States since the referenced importation limitation no longer exists. Extending the individual bird identification period from 72-hours to 7-days would relieve existing restrictions and should result in reduced costs for quarantine facilities and more healthful conditions for imported birds.

Under the circumstances explained above, the Administrator of the Animal and Plant Health Inspection Service has determined that this action would not have a significant economic impact on a substantial number of small entities.

Executive Order 12372

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 7 CFR Part 3015, Subpart V).

List of Subjects in 9 CFR Part 92

Animal diseases, Canada, Imports, Livestock and Livestock Products, Mexico, Poultry and Poultry Products, Quarantine, Transportation, Wildlife.

PART 92—IMPORTATION OF CERTAIN ANIMALS AND POULTRY AND CERTAIN ANIMAL AND POULTRY PRODUCTS: INSPECTION AND OTHER REQUIREMENTS FOR CERTAIN MEANS OF CONVEYANCE AND SHIPPING CONTAINERS THEREON

Accordingly, it is proposed to amend 9 CFR Part 92 as follows:

1. The authority citation for Part 92 would continue to read as follows:

Authority: 7 U.S.C. 1622; 19 U.S.C. 1306, 21 U.S.C. 102–105, 111, 134a, 134b, 134c, 134d, 134f, and 135; 7 CFR 2.17, 2.51, and 371.2(d).

§ 92.2 [Amended]

2. In § 92.2, footnote number 2a of paragraphs (c)(1), (c)(2)(i), and (c)(3) and the references thereto would be removed.

§ 92.11 [Amended]

3. Paragraph (e) of § 92.11 would be amended by changing "72 hours" to read "7 days".

4. Paragraph (f)(3)(ii)(E) of § 92.11 would be amended by changing "72 hours" to read "7 days".

Done at Washington, DC., this 29th day of July 1986.

J.K. Atwell,

Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service.

[FR Doc. 86–17442 Filed 8–1–86; 8:45 am]

BILLING CODE 3410-34-M

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Personnel With Unescorted Access to Protected Areas: Fitness for Duty

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule: withdrawal.

SUMMARY: The Commission is withdrawing a proposed rule published in the Federal Register on August 5, 1982. In this rule, the Commission proposed amending its regulations to require that certain licensees establish, document, and implement adequate written procedures designed to ensure that while on duty personnel with unescorted access to protected areas in commercial nuclear power plants are not under the influence of alcohol or other drugs or otherwise unfit for duty. The Commission proposed this rule because of a concern that certain persons could become unfit for duty due to the effects of substances such as alcohol or other drugs and, thereby, adversely impact the health and safety of the public. Instead of this rule, the Commission is issuing a Policy Statement concurrent with this action to withdraw the proposed rule. The Commission has decided to defer rulemaking on fitness for duty of nuclear power plant personnel for a minimum of 18 months from the effective date of the Policy Statement. The Commission's decision is intended to recognize and further encourage the initiatives concerning fitness for duty being taken by the nuclear power industry, the Nuclear Utility Management and Human Resources Committee (NUMARC), and by the Institute of Nuclear Power Operations (INPO). The Commission will exercise this deference as long as the industry programs produce the desired results. The Commission will reassess the possible need for further action based on the success of those programs during the 18-month period.

DATE: This withdrawal is effective August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Loren Bush, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492–8080.

SUPPLEMENTARY INFORMATION:

Background

The Nuclear Regulatory Commission recognizes drug and alcohol abuse to be a social, medical, and safety problem affecting every segment of our society. Given the pervasiveness of the problem in our society, it seems reasonable to assume that drug and alcohol abuse, as well as other emotional and psychological factors, also exist in the nuclear industry. Prudence, therefore, requires that the Commission take appropriate precautionary measures to reduce the probability that a person, who is under the influence of alcohol, other drugs, or who is otherwise unfit for some task involving a nuclear power unit, may cause an accident or react inadequately to an accident.

The job performance of alcohol and drug abusers can be expected to be hindered by the presence of chemicals in their blood stream. For example, the National Institute on Alcohol Abuse and Alcoholism (NIAAA), in its 1981 Report to Congress, reports that 46 percent of all nonfatal and 40 percent of all fatal

U.S. industrial accidents involve alcohol, at an annual cost of $12 to $15 billion. More specifically, 4 ounces of alcohol in the blood steam of a 165-pound male requires approximately 12 hours to metabolize. This is one reason that other regulatory agencies (e.g., U.S. Department of Transportation) mandate specific periods of abstinence (e.g., 4 or 8 hours) for interstate truck drivers, commercial airline pilots etc., before these persons come on duty. Drugs other than alcohol, such as cocaine and hashish, require as much as 24 to 72 hours to metabolize.

The Tennessee Valley Authority's (TVA) 1979 report on its Alcohol and Drug Dependency Program states that the program served 350 employees during that year (one out of every 143). TVA estimates its annual cost due to alcohol abuse alone is approximately $18.5 million. As recently as mid-1981, approximately one-third of the Edison Electric Institute's (EEI) member companies operating nuclear stations had no programs to deal with this problem. More recently, NRC Inspection and Enforcement (IE) Information Notice No. 82-05, "Increasing Frequency of Drug-Related Incidents," reports a steadily increasing number of drug-related arrests and terminations being reported by the nuclear industry since 1978. The reported incidents are widespread geographically and involve power reactor sites in each of the five NRC regions. The Commission determined, therefore, that a regulation may be needed to deal with this problem.

Proposed Rule

On August 5, 1982, NRC published in the **Federal Register** (47 FR 33980) its proposed "Fitness for Duty" Rule, amending 10 CFR 50.54. The proposed rule was a broad, non-prescriptive rule that would have required licensees to establish, document, and implement adequate written procedures to ensure that while on duty their personnel and their contractors' personnel with unescorted access to protected areas, while in those protected areas, are not under the influence of alcohol, other drugs, or otherwise unfit for duty. Various questions were posed in the proposed rule to which the Commission wanted responses in order to decide on its next course of action.

Comments

A total of 73 responses containing 310 comments were received, all of which were evaluated in the decision to proceed with the Policy Statement and are reflected in it. The following highlights the major issues raised in the comments (a more complete discussion of the comments received is available for inspection or copying for a fee in the Commission's Public Document Room at 1717 H Street, NW., Washington, DC).

Approximately two-thirds of the respondents disagreed with the need for a rule, stating in essence, that (1) NRC has not established a sufficient need for the rule, (2) the rule should be part of the proposed rule on the "Access Authorization Program" published in the **Federal Register** on August 1, 1984 (49 FR 30726), and that (3) the utilities are aware of the fitness for duty issue and are taking appropriate remedial action.

Several respondents commented that the development and implementation of "fitness for duty" procedures would cause a licensee legal and union-related liabilities, significant monetary costs, and would have a deleterious impact on employee morale.

Comments about implementation issues involving the rule, such as definition of terms, use of diagnostic tools such as breath testers, or establishment of fitness for duty standards, were received from 58 of 73 respondents. Most of these expressed a need for definitions and standards and objected to the use of breath tests.

Six specific recommendations for changes in the proposed rule were received from 56 of the 73 respondents. These involved (1) changing the word "ensure" to the term "provide reasonable assurance"; (2) extending the rule to all persons with unescorted access, thereby including NRC personnel as well as personnel of the Department of Energy, and othe Federal, State and local government agencies; (3) limiting the rule to "vital" areas, rather than having it apply to the more general "protected" areas of the plant; (4) eliminating the requirement for maintaining records of written procedures for the life of the plant; (5) providing an appropriate time for implementation; and (6) working the rule broadly and not making it prescriptive.

Initial Response and Additional Comments

On July 5, 1984 the Commission approved publication of the rule, as revised by the staff in response to public comments and per direction provided by the Commission. However, the Commission asked, that prior to publishing the final rule, the staff explore with INPO and NUMARC their willingness to undertake the development of detailed program elements and acceptance criteria for a fitness for duty program. NUMARC responded that they would be willing to develop guidance on fitness for duty as an alternative to the NRC promulgating the rule. Industry representatives stated they believed that any rulemaking or other form of mandatory requirements would undermine the voluntary efforts of the industry toward self improvement in this area. NUMARC suggested the NRC issue a Policy Statement or generic letter on fitness for duty, which would not establish additional NRC requirements.

Response to Comments

The Commission met on October 12, 1984 to discuss the question of the extent to which it wished to seek industry commitments for self improvements versus promulgating the Fitness for Duty Rule. Previously the Commission had proposed a general rule whose detailed implementation would be left to the industry because it believed that a problem existed which must be solved, and that not all of its licensees were taking appropriate remedial action. The decision before the Commission as a result of public comments and industry initiatives was whether (1) to issue a regulation which allows each licensee to develop written procedures that taken into consideration not only fairness to, and due process for, its employees, but also any condition or circumstances unique to its facility, or (2) to make sure that the industry develops and implements such procedures without the Commission promulgating a rule.

After careful consideration of the industry initiatives and all the public comments, the Commission has decided to withdraw the proposed rule. Instead of this rule, the Commission is publishing a Policy Statement concurrent with this notice withdrawing the proposed rule. In that statement, it is presenting its policy on fitness for duty of nuclear power plant personnel, incorporating many of the elements discussed in the comments, and describing the activities it will undertake to execute its responsibilities to ensure the health and safety of the public.

In the Policy Statement the Commission recognizes that the industry, through the initiatives of the Edison Electric Institute (EEI), NUMARC, and INPO, has made progress in developing and implementing nuclear utility employee fitness for duty programs. While some of these efforts have only recently been initiated, the Commission realizes the importance of industry's initiative and wishes to further encourage such self-improvement. Subject to the continued

success of industry's programs and NRC's ability to monitor their effectiveness, the Commission will refrain from new rulemaking on fitness for duty of nuclear power plant personnel for a minimum of 18 months from the effective date of the Policy Statement. While the Commision is deferring rulemaking in this area in recognition of the industry's efforts to date, and the intent of the industry to utilize the "EEI Guide to Effective Drug and Alcohol/Fitness for Duty Policy Development" [1], it will exercise this deference only as long as the industry's programs produce the desired results. NRC continues to have the responsibility for independently evaluating applicants' and licensees' efforts in the fitness for duty area to ensure that the desired results are achieved and for evaluating the possible need for further NRC action based on the success of the industry's programs during this 18-month period. Withdrawal of the proposed fitness for duty rule, therefore, does not preclude the Commission from initiating similar rulemaking actions in the future or from taking any other course of action deemed necessary with regard to fitness for duty.

The NRC will evaluate the effectiveness of utility fitness for duty programs by its normal review of industry activities, through reviews of INPO program status and evaluation reports, periodic NRC observation of the conduct of INPO evaluations, and direct inspections conducted by NRC's Performance Appraisal Team, Regional Offices, and Resident Inspectors. NRC will also monitor the progress of individual license fitness for duty programs.

The Commission hereby withdraws the notice of proposed rulemaking published on August 5, 1982 (47 FR 33980).

Dated at Washington, DC, this 28th day of July, 1986.

For the Nuclear Regulatory Commision.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 86-17498 Filed 8-1-86; 8:45 am]

BILLING CODE 7590-01-M

[1] A copy of the EEI's current guidelines is available for inspection or copying for a fee in the Commission's Public Document Room, 1717 H Street, NW., Washington DC. Copies of the EEI guidelines may also be obtained for a fee from the Ordering and Billing Department, Edison Electric Institute, 1111—19th Street, NW., Washington, DC 20036.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 86-NM-156-AD]

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: This notice proposes to amend an existing airworthiness directive (AD) that requires inspection of trailing edge flap tracks for cracking on certain Boeing Model 747 airplanes. This amendment would incorporate a decrease in the inspection intervals from 1,000 landings to 300 landings for the fourth fastener from the forward end of the flap track. This action is prompted by eight recent reports of cracking adjacent to the fourth fastener hole prior to the current 1,000 landing inspection interval. This recent service experience has shown that the present 1,000 landing inspection interval is inadequate. Cracking could lead to failure of the flap track, and separation of the flap which would result in partial loss of controllability of the airplane.

DATE: Comments must be received on or before September 25, 1986.

ADDRESSES: Send comments on the proposal in duplicate to the Federal Aviation Administration, Northwest Mountain Region, Office of the Regional Counsel [Attn: ANM-103], Attention: Airworthiness Rules Docket No. 86-NM-156-AD, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168. The service bulletin specified in this AD may be obtained from the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124. It may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

FOR FURTHER INFORMATION CONTACT: Mr. Owen E. Schrader, Airframe Branch, ANM-120S; telephone (206) 431-2923. Mailing address: FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments specified above will be considered by the Administrator before taking action on the proposed rule. The proposals in this notice may be changed in light of the comments received. All comments submitted wil be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Availability of NPRM

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the FAA, Northwest Mountain Region, Office of the Regional Counsel (Attn: ANM-103), Attention: Airworthiness Rules Docket No. 86-NM-156-AD, 17900 Pacific Highway South, C-68966, Seattle, Washington 98168.

Discussion

Amendment 39-4917 (49 FR 36819; September 20, 1984), as amended by Amendment 39-5314 (51 FR 18308; May 19, 1986), AD 84-19-02, requires repetitive inspection of trailing edge flap tracks for cracking at intervals not to exceed 1,000 landings. The track web cracks are attributed to fatigue, stress corrosion pitting, and possible work hardening at the fail-safe bar fastener holes. Extensive cracking could result in separation of the flap. This failure could lead to partial loss of controllability of the airplane.

Since the issuance of AD 84-19-02, eight operators have reported 8 additional track web hole cracks adjacent to the fourth fail-safe bar fastener hole. The flap track is fabricated from high strength steel and testing has shown that the rate of crack growth is very fast once a crack is established. The recent finding of a number of cracks is an indication that the present 1,000 landing inspection interval is too long.

The FAA has reviewed and approved Boeing Service Bulletin 747-57A2229, Revision 2, dated June 6, 1986, which reduces the inspection interval from 1,000 landings to 300 landings and clarifies the specific inspection procedures to be used to check for cracks in the trailing edge flap tracks on certain Model 747 series airplanes.

Since this situation is likely to exist or develop on other airplanes of the same type design, this proposed AD would require repetitive inspection for cracking adjacent to the fail-safe bar fastener holes in the trailing edge flap tracks of Boeing Model 747 airplanes in accordance with the Boeing alert servcie bulletin previously mentioned. If cracking of flap track structure is found, it must be repaired before further flight.

It is estimated that 101 airplanes of U.S. Registry would be affected by this AD, that it would take approximately 40 manhours per airplane to accomplish the required actions, and that the average labor cost would be $40 per manhour. Based on these figures, the total cost impact of this AD to U.S. operators is estimated to be $161,000 for the initial inspection cycle.

For the reasons discussed above, the FAA has determined that this document (1) involves a proposed regulation which is not major under Executive Order 12291 and (2) is not a significant rule pursuant to the Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and it is certified under the ciriteria of the Regulatory Flexibility Act that this proposed rule, if promulgated, will not have a significant economic impact on a substantial number of small entities because few, if any, Boeing Model 747 airplanes are operated by small entities. A copy of a draft regulatory evaluation prepared for this action is contained in the regulatory docket.

List of Subjects in 14 CFR Part 39

Aviation safety, Aircraft.

The Proposed Amendment

PART 39—[AMENDED]

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend § 39.13 of Part 39 of the Federal Aviation Regulations as follows:

1. The authority citation for Part 39 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1421 and 1423; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); and 14 CFR 11.89.

2. By amending AD 84-19-02, Amendment 39-4917 (49 FR 36819; September 20, 1984), as amended by Amendment 39-5314 (51 FR 18308; May 19, 1986), by revising paragraph A. to read as follows:

A. Within 300 landings after the effective date of this Amendment, unless accomplished within the last 300 landings, and at intervals thereafter not to exceed 300 landings, visually inspect the flap track lower flanges and vertical webs at the front end for cracks adjacent to bolts number 1 through 4 in accordance with Boeing Alert Service Bulletin 747-57A2229, Revision 2, dated June 6, 1986, or later FAA-approved revisions. Cracked parts must be replaced prior to further flight.

Note.—These are the bolts that pass through both the flap track and the front end of the fail-safe bar. Inspection of the flap track may be performed by borescope through access holes in the flap track fairing adjacent to the front of the track. The proper location and diameter for the access holes is provided in the service bulletin.

All persons affected by this proposal who have not already received the service bulletin from the manufacturer may obtain copies upon request to the Boeing Commercial Airplane Company, P.O. Box 3707, Seattle, Washington 98124-2207. These documents may be examined at the FAA, Northwest Mountain Region, 17900 Pacific Highway South, Seattle, Washington, or the Seattle Aircraft Certification Office, 9010 East Marginal Way South, Seattle, Washington.

Issued in Seattle, Washington, on July 28, 1986.

Joseph W. Harrell,

Acting Director, Northwest Mountain Region.

[FR Doc. 86-17416 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-13-M

DEPARTMENT OF THE TREASURY

Customs Service

19 CFR Part 113

Proposed Customs Regulations Amendments Relating to Customs Bonds

AGENCY: Customs Service, Department of the Treasury.

ACTION: Proposed rule.

SUMMARY: On October 19, 1984, Customs published a final rule in the **Federal Register** which extensively modified the Customs bond structure. Customs ongoing review of the revised bond structure has revealed that it is necessary to clarify a provision in the instruments of international traffic bond condition to recognize a counterpart substantive requirement in the regulations. Specifically, this document proposes to recognize in the instruments of international traffic bond condition the regulatory exemption from entry filing for diverted or withdrawn U.S. instruments of international traffic not increased in value or improved in condition abroad. It is also necessary to establish, as an additional enforcement tool, a consequence of default provision in the basic importation and entry bond condition for failure to satisfy regulatory requirements. Specifically it is proposed to establish a liquidated damage provision in the basic importation and entry bond condition for failure to timely deposit estimated duties.

DATE: Written comments must be received on or before October 3, 1986.

ADDRESS: Written comments (preferably in triplicate) may be submitted to and imspected at the Regulations Control Branch, U.S. Customs Service Headquarters, Room 2426, 1301 Constitution Avenue, NW., Washington, DC 20229.

FOR FURTHER INFORMATION CONTACT: William Rosoff, Carriers, Drawback and Bonds Division, U.S. Customs Service, 1301 Constitution Avenue, NW., Washington, DC 20229 (202-566-5856).

SUPPLEMENTARY INFORMATION:

Background

By a final rule published in the **Federal Register** as T.D. 84-213 on October 19, 1984 (49 FR 41152), the Customs bond structure was extensively revised by consolidating and reducing the number of bond forms in use. The purpose of the revision was to simplify transactions between Customs and the importing public and to facilitate establishment of an efficient computerized bond control system.

A part of the foregoing involved incorporating specific bond conditions into Part 113, Customs Regulations (19 CFR Part 113), which established a contractual obligation on the part of the bond principal to comply with substantive requirements of the regulations. As a necessary part of this scheme, the bond conditions incorporated specific consequences of default provisions for failure to comply with the substantive requirements of the regulations and bond provisions.

Customs ongoing review of the revised bond structure since then has revealed that it is necessary to clarify a provision in the instruments of international traffic bond condition to recognize a counterpart substantive regulatory requirement.

Specifically, § 10.41a, Customs Regulations (19 CFR 10.41a), relates to instruments of international traffic such as lift vans, cargo vans, shipping tanks, skids, pallets, and similar instruments. Paragraph (d) of § 10.41a provides that if an instrument of foreign origin, or of U.S. origin which has been increased in value or improved in condition by a process of manufacture or other means while abroad, is released under § 10.41a

and is subsequently diverted to point-to-point local traffic within the U.S., or is otherwise withdrawn within the U.S. from its use as an instrument of international traffic, it becomes subject to entry and the payment of any applicable duties. Section 10.41a(d) also provides that an instrument of U.S. origin which has not been increased in value or improved in condition by a process of manufacture or other means while abroad and which is released under § 10.41a is not subject to entry filing or the payment of duty if it is diverted or otherwise withdrawn.

The bond condition relating to control of containers and instruments of international traffic is found in § 113.66, Customs Regulations (19 CFR 113.66). However, a review of the bond condition reveals that no provision has been made in § 113.66(a)(2) for the exemption from entry for a U.S. instrument which has not been increased in value or improved in condition as set forth in the latter part of § 10.41a(d). Accordingly, it is proposed to amend § 113.66(a)(2) to incorporate this exemption.

Another area where Customs believes an amendment would be appropriate relates to the consequences of default provision of the basic importation and entry bond condition of § 113.62, Customs Regulations (19 CFR 113.62). As presently written there is no liquidated damages provision for failure to deposit estimated duties and taxes within the time prescribed by law or regulation.

Under the provisions of section 505, Tariff Act of 1930, as amended (19 U.S.C. 1505), duties must be deposited with Customs at the time of making entry, or at such later time as may be prescribed by regulations. Section 141.101, Customs Regulations (19 CFR 141.101), generally provides, with certain identified exceptions, that estimated duties must be deposited with Customs at the time of filing the entry documentation or the entry summary documentation when it serves as both the entry and entry summary. One of the identified exceptions relates to merchandise released under entry documentation. Under this exception, deposit of estimated duties must be made at the time the entry summary is filed. Section 142.12, Customs Regulations (19 CFR 142.12), requires the filing of the entry summary, with estimated duties attached, within 10 working days after the time of entry.

Section 113.62, Customs Regulations, incorporates the above requirements into paragraph (a) of the bond condition relating to the agreement to pay duties, taxes, and charges. In order to provide an additional enforcement tool to insure timely deposit of estimated duties, Customs proposes to amend the consequences of default provisions found in § 113.62(i) by adding a new paragraph (4) which provides for payment of liquidated damages for each default involving failure to deposit estimated duties and taxes within the time prescribed by law or regulation in the amount of $50 and, for each day late, 1 percent of the undeposited estimated duties and taxes due. These amounts are consistent with the amount of liquidated damages assessed under the old General Term Bond, Customs Form 7595, and Immediate Delivery and Consumption Entry Bond (Term), Customs Form 7553, prior to the revision of the Customs bond structure by T.D. 84–213.

Further, to avoid any unnecessary litigation if we attempt to collect liquidated damages under a bond, it is proposed to amend the bond conditions set forth in §§ 113.62(a), 113.63(g)(1), 113.64(a), 113.64(c), 113.65(a)(3), 113.65(b), 113.66(c), 113.67(b)(1), 113.68(b), 113.69, 113.70, 113.71(b), 113.72, and 113.73(a)(2), Customs Regulations (19 CFR 113.62(a), 113.63(g)(1), 113.64(a), 113.64(c), 113.65(a)(3), 113.65(b), 113.66(c), 113.67(b)(1), 113.68(b), 113.69, 113.70, 113.71(b), 113.72, 113.73(a)(2)), to specify that the principal and surety are "jointly and severally" liable under the bond.

Comments

Before adopting this proposal, consideration will be given to any written comments (preferably in triplicate) that are submitted timely to Customs. Comments submitted will be available for public inspection in accordance with the Freedom of Information Act (5 U.S.C. 552), § 1.4, Treasury Department Reglations (31 CFR 1.4) and § 103.11(b), Customs Regulations (19 CFR 103.11(b)), on regular business days between the hours of 9:00 a.m. and 4:30 p.m. at the Regulations Control Branch, Room 2426, Customs Headquarters, 1301 Constitution Avenue, NW., Washington, DC 20229.

Executive Order 12291

This document does not meet the criteria for a "major rule" as specified in section 1(b) of E.O. 12291. Accordingly, no reglatory impact analysis has been prepared.

Regulatory Flexibility Act

Pursuant to the provisions of the Regulatory Flexibility Act (5 U.S.C. 605(b)), it is certified that, if adopted, the proposed regulations will not have a significant economic impact on a substantial number of small entities. Accordingly, the regulations are not subject to the regulatory analysis requirement of 5 U.S.C. 603 and 604.

Drafting Information

The principal author of this document was John E. Elkins, Regulations Control Branch, U.S. Customs Service. However, personnel from other Customs offices participated in its development.

List of Subjects in 19 CFR Part 113

Customs duties and inspection, Imports, Surety bonds.

Proposed Amendments to the Regulations

It is proposed to amend Part 113, Customs Regulations (19 CFR Part 113), as set forth below.

PART 113—CUSTOMS BONDS

1. It is proposed that the authority for Part 113 continue to read as follows:

Authority: 19 U.S.C. 66, 1623, 1624.

2. It is proposed to amend § 113.62(i) by adding a new paragraph (4) to read as follows:

§ 113.62 Basic importation and entry bond conditions.

* * * * *

(i) * * *

(4) If the principal defaults on the agreements in condition (a)(1)(i) by failing to deposit estimated duties and taxes within the time prescribed by law or regulation, the obligors agree to pay liquidated damages for each default in the amount of $50 and, for each day late, 1 percent of the undeposited estimated duties and taxes due.

3. It is proposed to revise § 113.66(a)(2) to read as follows:

§ 113.66 Control of containers and instruments of international traffic bond conditions.

* * * * *

(a) * * *

(2) Promptly enter the instrument unless exempt from entry; and

* * * * *

§§ 113.62, 113.63. 113.66, 113.67, 113.68, 113.69, 113.70, 113.71, 113.72, and 113.73 [Amended]

4. It is proposed to amend §§ 113.62(a), 113.63(g)(1), 113.66(c), 113.67(b)(1), 113.68(b), 113.69, 113.70, 113.71(b), 113.72, and 113.73(a)(2) by adding a comma and "jointly and severally" after the word "surety".

§ 113.64 [Amended]

5. It is proposed to amend § 113.64(a) by adding "(principal and surety, jointly

and severally)", after the word "obligors".

6. It is proposed to amend § 113.64(c) by removing "(principal and surety)" from the second sentence.

§ 113.65 [Amended]

7. It is proposed to amend §§ 113.65(a)(3) and 113.65(b) by removing "agrees" and inserting, in its place, "and surety, jointly and severally agree".

William von Raab,

Commissioner of Customs.

Approved July 11, 1986.

Francis A. Keating, II,

Assistant Secretary of the Treasury.

[FR Doc. 86-17459 Filed 8-1-86; 8:45 am]

BILLING CODE 4820-02-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 117

[OGD8-86-04]

Drawbridge Operation Regulations; Milhomme Bayou, LA

AGENCY: Coast Guard, DOT.

ACTION: Proposed rule.

SUMMARY: At the request of the St. Martin Parish Police Jury, the Coast Guard is considering a change to the regulation governing the operation of the pontoon bridge over Milhomme Bayou, mile 12.0, at Stephensville, St. Martin Parish, Louisiana, by requiring that at least two hours advance notice be given for an opening during the hours from 10 p.m. to 6 a.m. and that the draw continue to open on signal from 6 a.m. to 10 p.m. Presently, the draw is required to open on signal at all times.

This proposal is being made because of infrequent requests to open the draw during the prescribed advance notice period. This action should relieve the bridge owner of the burden of having a person constantly available at the bridge between 10 p.m. and 6 a.m., while still providing for the reasonable needs to navigation.

DATE: Comments must be received on or before September 18, 1986.

ADDRESS: Comments should be mailed to Commander (obr), Eighth Coast Guard District, 500 Camp Street, New Orleans, Louisiana 70130-3396. The comments and other materials referenced in this notice will be available for inspection and copying in Room 1115 at this address. Normal office hours are between 8:00 a.m. and 3:30 p.m., Monday through Friday, except holidays. Comments may also be hand-delivered to this address.

FOR FURTHER INFORMATION CONTACT: Perry Haynes, Chief, Bridge Administration Branch, at the address given above, telephone (504) 589-2965.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this proposed rulemaking by submitting written views, comments, data or arguments. Persons submitting comments should include their names and addresses, identify the bridge, and give reasons for concurrence with or any recommended change in the proposal. Persons desiring acknowledgment that their comments have been received should enclose a stamped, self-addressed postcard or envelope.

The Commander, Eighth Coast Guard District, will evaluate all communications received and determine a course of final action on this proposal. This proposed regulation may be changed in the light of comments received.

Drafting Information

The drafters of this notice are Perry Haynes, project officer, and Lieutenant Commander James Vallone, project attorney.

Discussion of Proposed Regulation

The vertical clearance of the bridge in the closed position is zero, although there is a small boat opening at one end of the bridge. Traffic through the bridge consists of commercial boats (largely oil related), shrimp/fish boats and recreational craft. Data submitted by St. Martin Parish show that this traffic is in a decline for the proposed advance notice period of 10 p.m. to 6 a.m. as indicated below:

(1) For the year 1985, during the proposed advance notice period, there were 360 bridge openings—an average of 30 openings per month or one opening per day. For the years 1983 and 1984, during the same proposed period, there were 414 and 373 openings, respectively.

(2) For the 12 months ending April 1986, during the proposed advance notice period, there were 280 bridge openings—an average of three openings every four days. Of the 280 openings, 67 occurred in the first four months of 1986—an average of about one opening every two days. For the same four months of 1983, 1984, and 1985, during the proposed advance notice period, there were 135, 129 and 147 openings, respectively.

Considering the few openings involved and the on-going traffic decline into 1986, the Coast Guard feels that two hours advance notice for opening the draw between 10 p.m. and 6 a.m. can be adopted with only minimal economic impact. This arrangement would allow relief to the bridge owner while still providing for the reasonable needs of navigation. The bridge would continue to open on signal between 6 a.m. and 10 p.m.

The advance notice for opening the draw would be given by placing a collect call to the Stephensville Bridge between 6 a.m. and 10 p.m., telephone (504) 385-0350, or to the St. Martin Parish Sheriff's office at St. Martinville, Louisiana, between 10 p.m. and 6 a.m., telephone (318) 394-3071. From afloat, this contact may be made by radiotelephone through a public coast station.

St. Martin Parish recognizes that there may be an unusual occasion to open the bridge on less than two hours notice for an emergency or to operate the bridge on demand for an isolated but temporary surge in waterway traffic, and has committed to doing so if such an event should occur. To provide for leeway in the vessel's appointed arrival time, St. Martin Parish will have a bridge tender at the bridge at least one-half hour before the appointed time who will remain at least one-half hour after the appointed time for a late arriving vessel.

Economic Assessment and Certification

This proposed regulation is considered to be non-major under Executive Order 12291 on Federal Regulation and nonsignificant under the Department of Transportation regulatory policies and procedures (44 FR 11034: February 26, 1979).

The economic impact of this proposal is expected to be so minimal that a full regulatory evaluation is unnecessary. The basis for this conclusion is the continuing decrease in navigation, with few vessels now passing this bridge during the proposed advance notice period of 10 p.m. to 6 a.m. The few vessels involved can reasonably give advance notice for a bridge opening by placing a collect call to the bridge owner at any time. The mariners requiring the bridge openings are repeat users of the waterway and scheduling their arrival at the bridge at the appointed time during the proposed advance notice period should involve little or no additional expense to them. Since the economic impact of this proposal is expected to be minimal, the Coast Guard certifies that, if adopted, it will not have a significant economic impact on a substantial number of small entities.

List of Subjects in 33 CFR Part 117

Bridges.

Proposed Regulation

In consideration of the foregoing, the Coast Guard proposes to amend Part 117 of Title 33, Code of Federal Regulations, as follows:

PART 117—DRAWBRIDGE OPERATION REGULATIONS

1. The authority citation for Part 117 continues to read as follows:

Authority: 33 U.S.C. 499; 49 CFR 1.46(c)(5); 33 CFR 1.05–1(g).

2. Section 117.481 (Nezpique Bayou) is redesignated as 117.482 and a new § 117.481 is added to read as follows:

§ 117.481 Milhomme Bayou.

The draw of the St. Martin Parish bridge, mile 12.0 (Landside Route) at Stephensville, shall open on signal; except that, from 10 p.m. to 6 a.m. the draw shall open on signal if at least two hours notice is given. During the advance notice period, the draw shall open on less than two hours notice for an emergency and shall open on demand should a temporary surge in waterway traffic occur.

Dated: July 16, 1986.

Peter J. Rots,

Rear Admiral, U.S. Coast Guard Commander, Eighth Coast Guard District.

[FR Doc. 86–17465 Filed 8–1–86; 8:45 am]

BILLING CODE 4910–14–M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[A–I–FRL–3059–3]

Approval and Promulgation of Implementation Plans; Nashua, NH, Carbon Monoxide Attainment Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve State Implementation Plan revisions submitted by the State of New Hampshire. The intended effect of these revisions is to control emissions of carbon monoxide in Nashua, New Hampshire, in order to attain the primary National Ambient Air Quality Standard by December 31, 1990 and to provide for reasonable further progress in the interim, as required under Part D of the Clean Air Act Amendments of 1977.

DATE: Comments must be received on or before September 3, 1986.

ADDRESSES: Comments may be mailed to Louis F. Gitto, Director, Air Managment Division, Room 2312, JFK Federal Bldg., Boston, MA 02203. Copies of the submittal and EPA's evaluation are available for public inspection during normal business hours at the Environmental Protection Agency, room 2312, JFK Federal Bldg., Boston, MA 02203 and at the New Hampshire Air Resources Agency, Health and Welfare Building, Hazen Drive, Concord, NH 03301.

FOR FURTHER INFORMATION CONTACT: Thomas Wholley (617) 223–4862, FTS: 223–4862

SUPPLEMENTARY INFORMATION: On February 26, 1985, September 12, 1985, and December 3, 1985 the Director of the New Hampshire Air Resources Agency (ARA) submitted revisions to the New Hampshire State Implementation Plan (SIP). These revisions request an extension of the attainment date for carbon monoxide (CO) for the City of Nashua to 1990 and contain the necessary attainment plan. The plan includes local street improvements, a vehicle Anti-Tampering/Anti-fuel Switching program and a vehicle Inspection-Maintenance (I/M) program. The remainder of this Notice presents the background for this action, how these revisions satisfy EPA's requirements for Part D SIPs, and EPA's proposed approval.

Background

The Clean Air Act Amendments of 1977 (the Act) specify that all areas of the country classified as nonattainment on or before July 1, 1979 must attain the primary National Ambient Air Quality Standards (NAAQS) no later than December 31, 1982, with specific exceptions. For states with nonattainment areas unable to demonstrate attainment of the CO standards by 1982, the Act allows a five year extension to December 31, 1987.

New Hampshire began air quality monitoring for CO in Nashua during the winter of 1978–79. Many violations of the eight-hour CO standard (10 mg/m3 or 9 ppm) were recorded that winter with the highest levels being more than twice the standard. The growth of industry and population in the Nashua area in the 1970s, and the lack of an adequate arterial roadway system to handle the increased traffic, have caused the major streets of downtown Nashua to become congested with heavy, slow moving traffic. At the State's request, EPA designated the City of Nashua as a nonattainment area for CO on April 11, 1980 (45 FR 24869).

When it became evident that Nashua could not possibly meet the 1982 attainment deadline, the EPA Regional Office recommended that New Hampshire be allowed the five year time periods (1977 to 1982 to 1987) associated with the statutory dates to develop a SIP for Nashua that would set 1985 as the attainment deadline with a possible extension to 1990. On November 3, 1981, New Hampshire submitted a preliminary attainment plan that showed attainment could not be achieved by 1985 and requested an extension to 1990.

In 1982 and 1983, while New Hampshire initiated further studies, EPA deliberated over how to deal with areaas that did not attain the NAAQS by the strict statutory date. EPA returned the Nashua SIP to New Hampshire in 1982 because it was inconsistent with EPA's developing post-1982 attainment policies. After much public comment, a year later, on November 2, 1983 (48 FR 50686), EPA published its final post-82 attainment policy. Areas classified nonattainment after July 1, 1979 are required to meet the same time intervals as described in the Act for nonattainment areas classified before this date (i.e., five years after designation with a possible five year extension). Under this policy, Nashua was given an attainment date of December 31, 1985, with a possible extension to 1990. On February 24, 1984, EPA sent a letter to the Governor of New Hampshire formally requesting a CO attainment plan for Nashua within 12 months.

EPA staff worked closely with the ARA and other New Hampshire agencies in the development of the attainment plan. The ARA formally submitted the Nashua plan on March 1, 1985. The cornerstone of the attainment plan was a two county resale I/M program which required authorization by the state legislature. However, in June, 1985, the legislature authorized a full I/M program in Nashua and eleven surrounding towns. Since this substantially altered the plan, EPA gave New Hampshire an additional six months to submit a revised plan. On September 12, 1985, New Hampshire submitted the revised plan. Revised completion dates for local street improvements were submitted on December 3, 1985.

In the context of the Act, these revisions are analogous to a combination of a 1979 SIP requesting an extension of the attainment date, and a 1982 SIP revision providing for attainment of the NAAQS by the

extension date. These revisions have thus been reviewed for consistency with EPA requirements for both 1979 and 1982 SIPs, with the major focus on the latter.

Policy Requirements—Extension of Attainment Date

The criteria EPA uses in evaluating the adequacy of SIPs requesting a five year extension of the attainment deadline are discussed in a February 24, 1978 memorandum from the Administrator (43 FR 21673). The memorandum details basic criteria for all Part D SIPs and specifies criteria for areas seeking extensions. Since Nashua's nonattainment problem results from mobile source emissions, two specific criteria must be satisfied.

1. Vehicle Emission Program

New Hampshire has committed to a two phased approach to reducing mobile source emissions. First, in July 1985, New Hampshire began an Anti-Tampering/Anti-Fuel Switching program for all 1985 and newer light duty gasoline vehicles. Secondly, New Hampshire has obtained the legal authority to implement an I/M program in Nashua and eleven surrounding towns. The State submitted a schedule to develop rules and regulations and to start up the I/M program by September, 1987. (More discussion of the program is provided below.)

2. Improved Public Transportation Measures

The Nashua Regional Planning Commission prepared a report that recommended several fixed bus routes through the City which would serve about 75% of its population. These recommendations were implemented in September, 1984. In April, 1985 another bus route as added. The transit service is continually being evaluated for potential improvements.

Policy Requirements—Extension Area SIPS

The criteria EPA uses in evaluating the adequacy of extension area SIPs is discussed in detail in a policy document published in the **Federal Register** on January 22, 1981 (48 FR 7182). The following section discusses how the Nashua attainment plan satisfies these criteria.

1. Control Strategies and Attainment Demonstration

A. Stationary Sources

No stationary source control programs are required since the nonattainment area does not have any stationary sources of CO with more than 1,000 tons per year potential emissions.

B. Vehicle Inspection and Maintenance

In June, 1985, the New Hampshire legislature authorized a full I/M program in Nashua and eleven surrounding towns. Vehicles will be tested once a year and the requirement will be enforced through annual vehicle registration. EPA has evaluated the proposed program and finds that it meets RACT requirements and provides for attainment by 1990. New Hampshire has committed to submit draft I/M program rules by June 30, 1986 and final rules by September 30, 1986. The program will start no later than September 30, 1987. EPA will be working with New Hampshire on the development of the program to ensure that it meets Agency requirements as set forth in the January 22, 1981 **Federal Register** (46 FR 7186). Upon receipt of the regulations, EPA will publish a supplementary notice of proposed rulemaking for public comment. EPA will then consolidate both proposals in one final action.

C. Transporation Measures

The attainment plan commits to four transportation control measures which will reduce traffic congrestion around intersections with high CO levels. These measures include rerouting of traffic, road construction, parking controls and optimization of signal timing. The December 3, 1985 submission contains a schedule for the implementation of these measures, showing full implementation by December, 1986. The Final Rulemaking will not be published until these measures have been implemented or until the legal authority to implement them has been obtained.

D. Reasonable Further Progress

The attainment plan provides for reasonable further progress by implementing the control strategies in stages. Emission reductions are currently being obtained from the catalyst inspection portion of the Anti Tampering/Anti Fuel Switching program which began on July 11, 1985 and the ongoing Federal Motor Vehicle Control Program. Future reductions will come from Nashua's implementation of local street improvements in 1986 and implementation of the I/M program in 1987.

E. Additional Measures/Contingency Plan

New Hampshire is committed to re-evaluating the air quality in Nashua. In the event that EPA determines that Nashua will not achieve attainment by 1990, the State will determine which additional control measure are needed to make up the shortfall. In order to ensure maintenance of the standards beyond 1990, New Hampshire plans to vigorously pursue the construction of a new bridge crossing the Nashua River which would divert traffic away from the problem area.

F. Conformity of Federal Actions.

The National Environmental Policy Act review process will be used to ensure that all future projects will not violate the New Hampshire SIP criteria at CO hot spot locations.

2. SIP Development Process

A Consulation Among State and Local Officials

In February 1979, the Governor of New Hampshire designated the Nashua Regional Planning Commission (NRPC), the New Hampshire Department of Public Works and Highways (NHDPW&H) and the ARA as joint lead agencies for CO attainment planning in Nashua. In August 1979, the NRPC, NHDPW&H, ARA and the Nashua Area Transportation Study Policy Committee signed a cooperative agreement with regard to transportation related air quality issues. The NRPC subsequently performed the study which was the beginning of the attainment planning. Representatives from all these agencies and the City of Nashua met on a regular basis throughout the development of the plan to discuss technical and policy issues.

B. Establishment of Emission Reduction Targets

Since there are no signficant stationary sources of CO, it was clear at the outset of the planning process that all emission reductions would have to come from mobile sources. Rather than fix a percent reduction target, the agencies involved in developing the attainment plan developed a list of potential mobile source strategies and evaluated them alone, and in various combinations, to see if attainment could be demonstrated.

C. Analysis of Alternatives

A variety of transportation measures and vehicle emission control programs were analyzed by state and local officials in the development of the attainment plan. Each measure was evaluated for its own emission reduction potential. Difference combinations of measures were also analyzed. The final strategy was selected after input from state, local and federal agencies and the public. The form of the I/M program was

debated in the legislature before the option for a full I/M program in Nashua and surrounding towns was selected.

3. Air Quality and Emission Data Bases

A special monitoring sutdy in 1978 and 1979 uncovered the nonattainment program in Nashua. The current continuous monitoring site has been operating since 1981 and satisfies EPA's monitoring criteria. The site is located near one of the most congested intersections in Nashua, and is representative of the worst air quality in the area. The input data for the modeling analyses represent a typical weekday during the worst CO season. The assumptions for meteorological conditions and background concentrations are consistent with EPA guidance. The State's original technical analyses for the attainment plan were performed using the MOBILE2 emissions model. At New Hampshire's request, EPA conducted an additional analysis of the proposed control strategy using the MOBILE3 model. That analysis also demonstrated attainment.

4. Modeling/Attainment Demonstration

New Hampshire conducted a two phased, site specific air quality modeling analysis to assess Nashua's CO attainment problems. A preliminary analysis of all signalized intersections in Nashua, using EPA's "Carbon Monoxide Hot Spot Guidelines," indicated that 46 intersections had the potential for CO violations. Next, New Hampshire conducted a detailed modeling study, using CALINE3 and MOBILE2, of the ten worst intersections for 1987. Excess emissions from queueing vehicles were accounted for using procedures approved by EPA. From this analysis, it was evident that Nashua could not meet the 1985 attainment date. For the 1990 attainment analysis, the three intersections with the highest predicted 1985 CO levels were modeled with CALINE3. This analysis demonstrated that the implementation of New Hampshire's SIP would result in Nashua attaining the NAAQS for CO by 1990.

Proposed Action

EPA is proposing to approve the New Hampshire Carbon Monoxide State Implementation Plan revisions for the City of Nashua that were submitted on September 12, 1985, with the understanding that the state will submit the required I/M rules and regulations by September 30, 1986. Upon receipt of the rules, EPA will publish a supplementary notice of proposed rulemaking for public comment. It is anticipated that the proposals will be consolidated into a single final rulemaking action.

Under 5 U.S.C. 605(b), I certify that this SIP revision will not have a significant economic impact on a substantial number of small entities (See 46 FR 8709).

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

List of Subjects in 40 CFR Part 52

Air pollution control, Carbon monoxide.

Authority: 42 U.S.C. 7401–7642.

Dated: February 14, 1986.

Paul Keough,

Acting Regional Administrator, Region I.

[FR Doc. 86–17447 Filed 8–1–86; 8:45 am]

BILLING CODE 6560-50-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 795 and 799

[OPTS–42085; FRL–3058–8]

Diethylene Glycol Butyl Ether and Diethylene Glycol Butyl Ether Acetate; Proposed Test rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed Rule.

SUMMARY: The EPA, under section 4 of the Toxic Substances Control Act (TSCA), is proposing that manufacturers and processors of diethylene glycol butyl ether (DGBE), CAS No. 112–34–5, and manufacturers and processors of diethylene glycol butyl ether acetate (DGBA), CAS No. 124–17–4, (also known as 2-(2-butoxyethoxy)ethylacetate), be required to perform health effects testing of DGBE for subchronic toxicity with particular emphasis on reproductive, hematological, liver and kidney effects; neurotoxicity/ behavioral effects; developmental neurotoxicity; pharmacokinetics; mutagenicity; and oncogenicity. EPA is also proposing dermal absorption testing of DGBA.

This proposed rule follows an Advance Notice of Proposed Rulemaking (ANPR) for DGBA and DGBE, which EPA issued on November 19, 1984 (49 FR 45606).

DATES: Submit written comments on or before October 3, 1986. If persons request an opportunity to submit oral comment by September 18, 1986, EPA will hold a public meeting on this rule in Washington, DC. For further information on arranging to speak at the meeting see Unit IX of this preamble.

ADDRESS: Submit written comments, identified by the document control number (OPTS–42085), in triplicate to: TSCA Public Information Office (TS–793), Office of Pesticides and Toxic Substances, Environmental Protection Agency, Rm. NE–G004, 401 M St., SW., Washington, DC 20460.

A public version of the administrative record supporting this action (with any confidential business information deleted) is available for inspection at the above address from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays.

FOR FURTHER INFORMATION CONTACT:

Edward A. Klein, Director, TSCA Assistance Office (TS–799), Office of Toxic Substances, Rm. E–543, 401 M St., SW., Washington, DC 20460, Toll free: (800–424–9065).

In Washington, DC: (554–1404).

Outside the USA: (Operator—202–554–1404).

SUPPLEMENTARY INFORMATION: EPA is issuing a proposed test rule under section 4(a) of TSCA to test diethylene glycol butyl ether for health effects and diethylene glycol butyl ether acetate for dermal absorption.

I. Introduction

A. ITC Recommendation

TSCA (Pub. L. 94–469, 90 Stat. 2003 *et seq.*; 15 U.S.C. 2601 *et seq.*) established the ITC under section 4(e) to recommend to EPA a list of chemicals to be considered for testing under section 4(a) of the Act.

The ITC designated DGBA (CAS No. 124–17–4) for priority consideration in its 13th Report submitted to EPA on November 8, 1983, and published in the **Federal Register** on December 14, 1983 (49 FR 55674). The ITC recommended that DGBA be considered for health effects testing, including subchronic toxicity, reproductive effects and toxicokinetics.

The bases for these recommendations were as follows: a subchronic toxicity study in another species was recommended to investigate renal effects due to the renal tubular degenerative damage observed in rabbits in a 90-day dermal study at 2,000 to 3,000 mg/kg/day (Ref. 1); a reproductive effects study was recommended due to the possible testicular effects of a probable alkyloxy acetic acid metabolite (Ref. 2) by analogy to a similar metabolite of ethylene glycol butyl ether (EGBE) which produced a slight testicular effect in mice (Ref. 3); and a toxicokinetics study including biochemical disposition was recommended because DGBA may

be absorbed through the skin, the first product of its hydrolysis would probably be a glycol ether, and both worker and consumer exposures are involved.

B. Test Rule Development Under TSCA

Under section 4(a) of TSCA, EPA shall by rule require testing of a chemical substance or mixture to develop appropriate test data if the Agency finds that:

(1)(A) (i) the manufacture, distribution in commerce, processing, use, or disposal of a chemical substance or mixture, or that any combination of such activities, may present an unreasonable risk of injury to health or the environment,

(ii) there are insufficient data and experience upon which the effects of such manufacture, distribution in commerce, processing, use, or disposal of such substance or mixture or of any combination of such activities on health or the environment can reasonably be determined or predicted, and

(iii) testing of such substance or mixture with respect to such effects is necessary to develop such data; or

(B)(i) a chemical substance or mixture is or will be produced in substantial quantities, and (I) it enters or may reasonably be anticipated to enter the environment in substantial quantities or (II) there is or may be significant or substantial human exposure to such substance or mixture,

(ii) there are insufficient data and experience upon which the effects of the manufacture, distribution in commerce, processing, use, or disposal of such substance or mixture or of any combination of such activities on health or the environment can reasonably be determined or predicted, and

(iii) testing of such substance or mixture with respect to such effects is necessary to develop such data.

EPA uses a weight-of-evidence approach in making a section 4(a)(1)(A)(i) finding; both exposure and toxicity information are considered in determining whether available data support a finding that the chemical may present an unreasonable risk. For the finding under section 4(a)(1)(B)(i), EPA considers only production, exposure, and release information to determine whether there is or may be substantial production and significant or substantial human exposure or substantial release to the environment. For the findings under sections 4(a)(1) (A)(ii) and (B)(ii), EPA examines toxicity and fate studies to determine whether existing information is adequate to reasonably determine or predict the effects of human exposure to, or environmental release of, the chemical. In making the finding under section 4(a)(1) (A)(iii) or (B)(iii) that testing is necessary, EPA considers whether ongoing testing will satisfy the information needs for the chemical and whether testing which the Agency might require would be capable of developing the necessary information.

EPA's process for determining when these findings apply is described in detail in EPA's first and second proposed test rules as published in the **Federal Register** of July 18, 1980 (45 FR 48524) and June 5, 1981 (46 FR 30300). The section 4(a)(1)(A) findings are discussed at 45 FR 48524 and 46 FR 30300, and the section 4(a)(1)(B) findings are discussed at 46 FR 30300.

In evaluating the ITC's testing recommendations for DGBA, EPA considered all available relevant information including the following: Information presented in the ITC's report recommending testing consideration; production volume, use, exposure, and release information reported by manufacturers of DGBA under the TSCA section 8(a) Preliminary Assessment Information Rule (40 CFR Part 712); health and safety studies submitted under the TSCA section 8(d) Health and Safety Data Reporting Rule (40 CFR Part 716) for DGBA; and published and unpublished data available to the Agency. Based on its evaluation, EPA responded to the ITC designation by publishing in the **Federal Register** on November 19, 1984 (49 FR 45606), an advance notice of proposed rulemaking (ANPR) for DGBA under section 4(a) of TSCA. This ANPR also informed the public that EPA was expanding the scope of its rulemaking to include DGBE. The ANPR presented a preliminary section 4(a)(1)(B) finding based upon the potential for substantial inhalation exposure to DGBA and DGBE due to their use in latex paint and the potential for dermal absorption of DGBE due to its use in numerous products which involve dermal exposure; presented a preliminary section 4(a)(1)(A) finding for hematological effects based on the ability of the structural analog EGBE to cause erythrocyte fragility with a no-observed-effect level (NOEL) close to the level estimated for consumer exposure to DGBA and DGBE from the use of latex paint (Ref. 26); defined the testing EPA was considering proposing for both chemicals; and sought public comment on EPA's plan to propose a test rule for these chemicals. The testing EPA was considering for DGBA and DGBE included a 90-day subchronic oral study with a complete histopathology of reproductive organs. Effects observed in these organs would trigger a requirement for full reproductive effects testing. Neurotoxicity and behavioral toxicity testing would also be performed on the test animals. As part of the 90-day subchronic study, a satellite group was being considered to evaluate hematological effects. Hematological testing would consist of serial sacrifices with blood counts, measurements of blood chemistry, and bone marrow studies over the first 2 weeks of dosing. This schedule was being considered because of the transitory blood effects reported for EGBE (Ref. 19). Developmental effects testing by the oral route was being considered in addition to a tiered mutagenicity test sequence. Positive findings in certain mutagenicity tests consistent with testing policy would lead to further mutagenicity testing and, in some cases, to carcinogenicity testing. EPA was also considering requiring comparative pharmacokinetics for the inhalation and oral routes of exposure to allow an evaluation of the effect of the route of exposure upon the effects of DGBA and DGBE. The Agency also requested comments and information on the effect of the route of administration on the toxicology of these chemicals.

In the ANPR, EPA also announced it was considering testing of only DGBE if DGBA could be shown to rapidly metabolize to DGBE and requested comments on this.

The ANPR also sought comments on the need for neurotoxicity testing since DGBE was reported to cause narcosis at doses near its LD_{50} (Refs. 5 and 31), and another glycol ether had been reported to cause neuropathy in workers (Ref. 14), but DGBE and DGBA have not been reported to cause neurotoxic effects when tested at lower doses for longer periods of time (Refs. 1 and 34).

In response to the ANPR, comments and studies were received from: Eastman Kodak Company, the Procter and Gamble Company, the Dow Chemical Company, and the Chemical Manufacturers Association (CMA). Based on its evaluation of this information as described in this proposed rule, EPA is proposing health effects testing requirements for DGBE and dermal absorption testing of DGBA under section 4(a)(1)(A) and (B) of TSCA.

C. ANPR Comments

1. *Exposure.* The Dow Chemical Company (Ref. 61) and the Chemical Manufacturers Association (CMA) (Ref. 60) commented that there was not substantial exposure to DGBA and DGBE during manufacturing. This was EPA's conclusion in the ANPR, but now the Agency considers that dermal absorption during manufacturing and processing may be substantial. (See Unit II.D.)

CMA (Ref. 60) and Eastman Kodak (Ref. 59) commented that exposure to DGBA from the use of latex paint would present no unreasonable risk based on a

painting study conducted by Kodak in which the airborne concentration of DGBA was measured (Ref. 16). The study estimated that a painter would receive a dose of 5.6 micrograms per kilogram (μg/kg) from inhalation exposure to DGBA while applying latex paint for 1.3 hours. EPA considers this estimate to be low since the peak concentration of DGBA occurs 2 to 6 hours after application (Ref. 16). This study also predicted the painter's dose of DGBA to be 49.9 μg/kg for 6.3 hours of exposure based on area samples during the 5-hour period after paint application and the personnel samples on the painter during the 1.3 hours of paint application (Ref. 16). EPA also considers this exposure estimate for 6.3 hours to be low since it was based on DGBA concentrations evolved from only 1.3 hours rather than 6.3 hours of painting; also, area samples gave consistently lower values when compared to personnel samples taken during the same time period (i.e., the 1.3 hours of paint application), despite a ventilation arrangement which caused a downward air flow away from the painter's breathing zone; also, the paint used contained 1 percent DGBA rather than the maximum of 3 percent. EPA does not agree with Eastman Kodak's low estimate of potential exposure and is making a section 4(a)(1)(B) finding based on significant exposure to DGBA in latex paint.

CMA (Ref. 60), Eastman Kodak (Ref. 59), and Procter and Gamble (Ref. 18) commented that dermal absorption and inhalation exposure to DGBE from the use of water-based cleaning products would be very low, based on the low vapor pressure of DGBE and the rate of dermal absorption of 0.035 mg/cm²/hr measured by Procter and Gamble (Ref. 18). Procter and Gamble estimated consumer exposure to DGBE to be 0.06 mg/kg from the use of a hard surface cleaner by measuring inhalation exposure and estimating dermal absorption during 3 minutes using the full strength cleaner and 9 minutes using a diluted cleaner (Ref. 18). EPA considered Procter and Gamble's exposure estimate somewhat low because the total cleaning time was only 12 minutes and no consideration was given to cases where the film of detergent and water would be allowed to dry on the skin, thereby increasing the dermal dose. EPA is using exposure to DGBE in cleaning and other consumer products, in addition to exposure to DGBA in latex paint, as the basis for the section 4(a)(1)(B) finding.

2. *Hematologic effects of EGBE.* The ANPR made a preliminary section 4(a)(1)(A) finding for hematologic effects by analogy to EGBE which caused erythrocyte fragility in rats. CMA submitted a review which assessed the hematologic toxicity of EGBE and concluded that rats are the most susceptible species to erythrocyte fragility caused by EGBE and that this effect should not be extrapolated to humans (Ref. 42). Dow also submitted a study which showed that EGBE, but not DGBE, caused erythrocyte fragility in rats (Ref. 41). (See Unit II.G.4.)

EPA is no longer basing a section 4(a)(1)(A) finding on analogy to EGBE's ability to cause erythrocyte fragility, but rather on the reduced blood cell counts due to DGBE reported in two studies (Refs. 38 and 39). (See Unit II.G.3.)

3. *Testing of DGBE only.* Eastman Kodak submitted a study which demonstrated that DGBA rapidly hydrolyzed to DGBE (Ref. 29) and commented that test data on DGBE was therefore sufficient to evaluate the toxicity of DGBA (Ref. 59).

EPA accepts the Kodak study and believes it adequately demonstrates the rapid hydrolysis of DGBA to DGBE and that the testing of DGBE alone for health effects will be sufficient.

4. *Test program*—a. *Subchronic toxicity.* CMA, the Dow Chemical Company, and Eastman Kodak commented that sufficient subchronic toxicity testing has been done to characterize the effects of DGBE (Refs. 59, 60, and 61). They commented that three studies in particular (Refs. 36, 37, and 38) adequately demonstrated the subchronic effects of DGBE. EPA reviewed these studies and found them inadequate to fully assess the potential subchronic toxicity of DGBE. (See Unit II.G.3.)

b. *Oral Testing.* CMA commented that oral testing of DGBE was unwarranted in light of the absence of human oral exposures (Ref. 60). EPA originally chose oral testing because it felt inhalation testing would be difficult, but now that dermal absorption appears to be an equally important route of exposure, EPA is proposing testing by the dermal route, except where specific test guidelines require oral administration.

c. *Oral vs. inhalation pharmacokinetics.* CMA commented that oral vs. inhalation pharmacokinetics testing is unwarranted in light of the absence of human oral exposure and minimal human inhalation exposure (Ref. 60).

EPA is now proposing oral vs. dermal pharmacokinetics because testing will be done by these routes of administration and dermal absorption is an important route of exposure. EPA does not agree that human inhalation exposure is minimal (See Unit II.D.), but is not asking for inhalation pharmacokinetics because of anticipated difficulties in performing this test.

d. *Reproductive and developmental effects.* CMA (Ref. 60), the Dow Chemical Co. (Ref. 61), and Eastman Kodak (Ref. 59) commented that two reproductive effects studies of DGBE in rats and mice (Refs. 45 and 51) and a dermal teratology study of DGBE in rabbits (Ref. 46) as well as other studies on the glycol ether analog, EGBE, (Refs. 44, 53, and 54) adequately demonstrate that DGBE and DGBA are unlikely to produce human reproductive or developmental toxicity. EPA reviewed these studies and found them inadequate to fully assess or predict the potential reproductive effects of DGBE, but adequate to predict the developmental effects of DGBE. (See Units II.G.7 and 8.)

e. *Mutagenicity.* CMA (Ref. 60) commented that the mutagenic potential of DGBE had been extensively reviewed by Thompson (Ref. 47) in a tiered test sequence similar to that proposed by EPA. EPA agrees that all the necessary tests in the gene mutation test sequence have been done with only one positive result. Such a positive result is normally a trigger for oncogenicity testing. However, EPA is proposing a repeat of this test in another cell line to further assess the need for oncogenicity testing because the weight-of-evidence indicates a low potential for DGBE to be oncogenic.

However, the complete mutagenicity test sequence for chromosomal aberrations was not done and EPA considers this necessary to fully assess the potential of DGBE to cause chromosomal effects (See Unit II.G.6) and also to further assess the need of oncogenicity testing.

5. *Neurotoxicity.* CMA commented that the report of narcosis at DGBE doses near the acute LD_{50} is similar to findings at high doses of many other organic solvents and provides no suggestion of neurotoxicity at lower doses (Ref. 60). EPA agrees that effects near the LD_{50} should not raise undue concern for neurotoxicity, but studies by Krotov (Ref. 39) and the Bushy Run Research Center (Ref. 44) showed effects on the nervous system in rats at much lower dose levels. (See Unit II.G.4.) Therefore, EPA has proposed neurotoxicity testing of DGBE. (See Unit IV.A.)

6. *Effect of route of administration.* Since the ANPR called for oral testing,

but exposure is by inhalation and dermal absorption, EPA asked for comments on the effect of the route of administration on the toxicity of DGBA and DGBE. EPA did not receive any comments on this subject; but is now proposing testing by the oral and dermal routes.

II. Review of Available Data

A. Profile

DGBA and DGBE are colorless, relatively nonpolar liquids with faint, sweet odors. A summary of the physical and chemical properties of DGBA and DGBE is presented in the following Table 1:

TABLE 1.—PHYSICAL AND CHEMICAL PROPERTIES OF DGBA AND DGBE[1]

Property	DGBA	DGBE
Density (g/ml)	0.981	0.948
Molecular weight (g/mole)	204.3	162.3
Freezing point (°C)	−32	−68.0
Boiling point (°C)	246.8	230.4
Vapor pressure at 25 °C (mm Hg)	<0.01	0.043
Flash point open cup (°C)	240.0	200.6
Solubility in water (g/l)[3]	65.0	([3])
Log K_{ow}[2]	1.9	1.0
K_{oc} (estimated)[2]	257.0	83.0

[1](Ref. 5).
[2](Ref. 6).
[3]Miscible.

The chemicals are excellent solvents and cosolvents for high molecular weight resins (Ref. 4). DGBA and DGBE have low vapor pressures and are soluble in water.

B. Production

DGBE is manufactured by reacting *n*-butyl alcohol with ethylene oxide. DGBA is manufactured by reacting DGBE with acetic anhydride. Due to the pressure requirements of the reactions, the chemicals are produced in closed systems with all waste streams recycled (Ref. 6).

DGBE is produced by six companies, two of which also make DGBA. The annual production of DGBA and DGBE is 4.8 and 66.5 million pounds per year (Ref. 62).

C. Use

DGBE and DGBA are found in a number of industrial and consumer products. Forty percent of the latex paint consumed in the U.S. contains DGBE or DGBA as coalescing agents at concentrations of 0.5 to 3 percent by weight (Refs. 10, 11, 12, and 63). Coalescing agents are compounds added to latex paints to act as plasticizers for the latex polymer. Plasticizers soften the colloidal latex particles and allow them to merge and form a uniform film upon drying. Coalescing agents slowly volatilize from paint over several days following application (Ref. 11).

DGBE and DGBA are also used in inks and industrial coatings as solvents and carriers. Unlike the lower molecular weight glycol ethers which rapidly evaporate, DGBE and DGBA evaporate more slowly (Ref. 7). Inks and coatings containing DGBE and DGBA are usually oven dried (Refs. 6 and 9). DGBE and DGBA also serve as solvents in the electronics industry (Ref. 13).

In addition, DGBE is used as a diluent in brake fluids, and as a component of cutting oils (Ref. 7), and in a number of consumer and industrial products including hard surface cleaners, metal cleaners, paint removers, stamp pad inks, floor cleaners, floor wax strippers, floor finishes, spray cleaners, penetrating oils, and foam fire extinguishers (Ref. 14).

D. Exposure and Release

Based on available data, EPA believes that the highest exposure to DGBA and DGBE occurs from the consumer and occupational use of latex paints. The use of latex paint is widespread, and the exposed population would include most professional painters and a large percentage of the U.S. consumer population. EPA estimates that 4,500 occupational painters and 15 to 20 million consumers are exposed to latex paint containing DGBA or DGBE each year (Refs. 63 and 25).

DGBA and DGBE act as coalescing agents in latex paint and are slowly released from the painted wall to the air over several days following application. Although DGBA and DGBE have low vapor pressures, releases of the glycol ethers from the large surface areas of painted walls are estimated to result in concentrations of 1 to 5 parts per million (ppm) in consumer homes. Consumers exposed to these levels are estimated to receive doses of 1 to 10 milligrams per kilogram body weight per day (mg/kg/day). While consumers would be exposed to these levels for only a few days per year, painters would be exposed each workday (Ref. 15).

The dosage from dermal exposure to DGBE and DGBA in latex paint is believed to be much less than that by inhalation. While painters and consumers may have significant dermal contact with latex paint, dermal absorption of DGBE and DGBA from paint is expected to be minimal during the first two hours that paint is on the skin. Both compounds are reported to partition into the latex polymer particles from the solvent portion of latex paints where they are relatively unavailable for dermal absorption (Ref. 11). However, according to the Eastman Kodak study (Ref. 16) discussed in Unit I.C.1, DGBA is slowly evaporated from paint, with the peak airborne concentration appearing 2 to 6 hours after application. It appears possible, therefore, for DGBA to be absorbed from paint if allowed to remain on the skin for a period longer than 2 hours.

Exposure to DGBE is expected from its use in a wide variety of commercial and consumer products which involve skin contact, such as cleaners, paint removers, floor products, brake fluid, cutting oils, and penetrating oils. From its use in cleaners alone, EPA estimates that 20 to 41 million consumers and 40,000 janitors could be exposed to DGBE (Refs. 25 and 63). *In vitro* dermal absorption studies have shown DGBE to be readily absorbed through human skin at a mean steady rate of 35 micrograms per square centimeter per hour (ug/cm^2hr) with an equivalent rate expected for the acetate (Ref. 17). An *in vitro* dermal absorption study by Procter and Gamble also showed that the rate of absorption in human skin increases with the duration of exposure: at the end of 1 hour, DGBE in a 50 percent dilution of a cleaning product (4 percent DGBE) is absorbed at the rate of 17 ug/cm^2/hr, but at the end of 6 hours it is absorbed at the rate of 66 ug/cm^2/hr (Ref. 18). This result implies that increased exposure time results in a greater than linear increase in dose by dermal absorption.

Using airborne concentrations and dermal absorption rates over time determined by the Procter and Gamble study (Ref. 18), EPA estimated the dose of DGBE a consumer would receive from the use of a cleaning product for 12 minutes and from a full 8 hours use of a cleaning product. If a cleaning product containing 4 percent DGBE were used full strength for 3 minutes and at a diluted concentration for 9 minutes, the consumer's exposure would total 0.55 mg/kg/day if the consumer allowed the films of diluted and full strength cleaner to dry on his hands. By not rinsing the films off immediately, additional dermal absorption is permitted to occur, thereby increasing the total dose (Ref. 20). If a consumer were to use the cleaning solution for 8 hours, which may be the case for a janitor, the following exposure estimates were made: After using the diluted cleaning product for 8 hours and allowing the residual film to dry on his hands, a janitor's dose of DGBE could be as high as 0.22 mg/kg/day. After using the cleaning product full strength on a dampened sponge (50 percent dilution) for 8 hours and allowing the residual film to dry on his hands, the janitor's dose of DGBE could be as high as 8.0 mg/kg/day (Ref. 21).

Inhalation exposure during manufacture is expected to be low since chemical production occurs only in enclosed processes. Dow submitted three monitoring studies which looked at employee exposure to DGBE during production, truck loading and rail car hook-up. Exposure was evaluated by determining 8-hour time-weighted average concentrations; none exceeded the detection limit of 0.2 ppm, which Dow considered acceptable when compared to its standard for DGBE of 35 ppm (Refs. 22, 23, and 24). Inhalation exposure during processing is also expected to be low since DGBA and DGBE have low vapor pressures and are used in low concentrations in various products (Ref. 6). There could be opportunities for dermal exposure, however, in manufacturing and processing during such operations as repair of equipment, sampling the process stream, cleaning equipment, changing filters, spill cleanup, and handling, transfer, and packaging of products.

Environmental releases of DGBA and DGBE during production and processing are expected to be small, since both are synthesized in closed reactor systems and only small amounts are expected to be released during loading into shipping containers. Although DGBA and DGBE are released to the atmosphere through the venting of storage tanks, this release is expected to be negligible. Eastman Kodak reports negligible release of DGBA from its plants to air and virtually no release to water or landfill (Refs. 6 and 8).

In their use in paints and inks, DGBA and DGBE will be released to the atmosphere. In products such as cutting oils and brake fluids, release to the environment could occur by disposal in wastewater. In all cases the level of release is expected to be low and widely dispersed (Ref. 6). No monitoring data were found reporting atmospheric or water concentrations of DGBA or DGBE released to the environment during use (Ref. 6).

E. Chemical Fate

By applying the physical and chemical properties of DGBA and DGBE presented in Unit II.A. to the EPA environmental partitioning (ENPART) model, the environmental distribution of DGBA and DGBE can be estimated. Assuming the initial dispersion to air, water, and soil to be 94, 4, and 2 percent and that half lives in air, water, and soil are 0.5 hours, 14 days, and 28 days, the ENPART model predicts the mass environmental distribution of DGBA and DGBE to be 78 and 80 percent in water, 20 and 18 percent in soil, and 2 percent of each in air (Refs. 27 and 28).

Although no specific information was available on the environmental fate of DGBA or DGBE, they are expected to degrade fairly rapidly in air and at a moderate rate in water and soil (Ref. 6). A biodegradation study of DGBA in activated sludge reported more than 90 percent biodegradation in 2 weeks after a 5-day adaptation period (Ref. 64), while a biodegradation study of DGBE reported 11 percent degradation in 5 days after introduction to the diluted effluent from a biological treatment plant (Ref. 65).

Neither DGBA nor DGBE is expected to bioaccumulate because of calculated bioconcentration factors (BCF) of 16 and 3 (Ref. 6), a BCF below 100 indicates a low potential for bioaccumulation.

F. Ecological Effects

Although there are no available data on the aquatic toxicity of DGBA, several screening studies have been performed to estimate the acute toxicity of DGBE to fish, aquatic invertebrates, and algae. The data presented in the following Table 2 demonstrate that DGBE has low aquatic toxicity. The Agency does not expect DGBA to be substantially more toxic than DGBE.

TABLE 2.—THE ACUTE TOXICITY OF DGBE TO AQUATIC ORGANISMS

Species	Test duration	Effect endpoint	Endpoint (mg/l)	Ref.
Menidia berylina	96h	LC50	2,000	74
Lepomis macrochirus	96h	LC50	1,300	74
Poecilia reticulata	7d	LC50	1,150	75
Carassius auratus	24h	LC50	2,700	76
Leuciscus idus		LC50	1,805	77
Leuciscus idus		LC50	2,304	77
Alburnus alburnus	96h	LC50	>10,000	78
Nitocra spinipes	96h	LC50	6,600	78
Daphnia magna	24h	LC50	2,850	79
Scenedesmus quadricauda.	7d	[1]EC3	1,000	56
Entosiphon sulcatum	72h	[2]EC5	73	56
Anacystis aeruginosa	8d	[3]Th	53	73

[1]Threshold concentration reducing growth by 3 percent.
[2]Threshold concentration reducing growth by 5 percent.
[3]Threshold concentration.

G. Health Effects

1. *Pharmacokinetics.* DGBA and DGBE are glycol ethers which differ structurally by only an acetate group. The ANPR requested information concerning the metabolism of DGBA to DGBE to evaluate the necessity of testing both chemicals. Eastman Kodak submitted an *in vitro* study which looked at the rate at which DGBA is hydrolyzed in blood to DGBE. When 5 mM of DGBA was incubated in rat blood, 42 percent was hydrolyzed to DGBE in 2 minutes and 68 percent in 4 minutes. With an apparent half-life of DGBA in blood of 3 minutes, this study adequately demonstrated a rapid hydrolysis of DGBA to DGBE (Ref. 29). No other data on the pharmacokinetics of DGBE are available comparing absorption, biotransformation, and excretion by the oral and dermal routes. Also, there are no data available on the rate of dermal absorption of DGBA.

2. *Acute toxicity.* Several studies of the acute oral toxicity of DGBA and DGBE have been conducted indicating similar toxicity for both chemicals, but an apparent species variation exists in the LD_{50} which ranges from approximately 2,000 to 12,000 mg/kg, with the guinea pig and rabbit appearing to be most sensitive. The results of the acute studies are summarized in the following Table 3.

TABLE 3.—Summary of Acute Toxic Effects (LD_{50}) of DGBA and DGBE

Species	Route of administration	LD_{50} (mg/kg)		References
		DGBA	DGBE	
Rat (fasted)	Oral	7,000		30
Rat	do	11,920	6,560	31
Rat (fasted)	do		7,292	32
Rat (fed)	do		9,623	32
Mouse (fasted)	do		2,406	32
Mouse (fed)	do		5,526	32
Mouse (fed)	do	6,480		30
Guinea pig (fasted)	do	2,650		30
Guinea pig	do	2,340	2,000	31
Rabbit (fed)	do	2,750		30
Rabbit	Dermal	5,400		30
Rabbit	do		2,764	33

In the Eastman Kodak study clinical signs of toxicity in rats and mice following oral administration of DGBE were inactivity, labored breathing, rapid respiration, anorexia, slight to moderate weakness, tremors, prostration, and death (Ref. 32).

The acute dermal toxicity of DGBE in male New Zealand white rabbits was evaluated following exposure for 24 hours at 4 dose levels: 1,700, 3,400, 6,800, and 13,610 mg/kg. Clinical signs of toxicity noted after treatment were anorexia, depression, tremors, prostration, and death. Gross pathology at autopsy showed evidence for adverse effects on the kidneys at the intermediate dose levels (enlarged, discolored renal pelvis). Edematous and hemorrhagic lesions of the thymus were observed at the three higher dose levels, and dark red fluid was noted in the urinary bladder of three rabbits treated with 3,400 mg/kg (Ref. 33).

The rat oral study by Smyth noted narcosis occurring near the LD_{50} and kidney damage at unspecified doses (Ref. 31). The chemicals are relatively non-irritating to the skin and eye (Ref. 1).

The studies of acute toxicity are adequate to predict the acute effects of exposure to DGBE and DGBA.

3. *Subchronic toxicity.* A subchronic dermal study by Draize applied DGBA to the clipped intact skin of rabbits for 90 days in daily doses from 490 to 3,920 mg/kg. Observed effects included hematuria, hemolysis in the kidney, and renal tubular degenerative changes (Ref 1). This study was not adequate to assess the subchronic toxicity of DGBA because the histopathology of the other possible target organs was not done, the observed effects were not correlated with dose, and the sex of the animals was not stated.

A 30-day oral study in rats by Kesten saw 650 mg/kg/day of DGBE cause hydropic degeneration of the kidney tubules (Ref. 34). The same study repeated by Smyth and Carpenter saw histopathologic injury in liver, spleen, and testes as well as kidney at 650 mg/kg/day. The maximum dose of DGBE having no observed effect was 51 mg/kg/day (Ref. 35). Because these studies were only 30 days in duration, they are not adequate to evaluate the subchronic toxicity of DGBE.

A 5-week inhalation study in rats by the Dow Chemical Company resulted in increased hepatocyte vacuolization and increased liver weights at doses of 40 and 120 mg/kg/day of DGBE. These effects were also seen in the controls, but the degree was not stated. The study looked for effects on erythrocyte fragility but found none (Ref. 36). Because this study was only 5 weeks in duration, it is not adequate to evaluate the subchronic toxicity of DGBE.

Eastman Kodak submitted the results of a 6-week oral study in which male rats were administered DGBE by gavage at doses of 891 to 3,564 mg/kg/day. At 1,782 and 3,564 mg/kg / the absolute and relative weights of spleen and liver were significantly increased compared to controls. Hematological effects were present at these doses and included decreased hemoglobin and total red cells, and abnormal red cell morphology. There were also kidney effects at these doses including proteinaceous casts and hemosiderin in the proximal convoluted tubules. No effect was seen at the dose of 891 mg/kg/day (Ref. 37). Because no liver histopathology was reported for this study, only male rats were used, and the study was only 6 weeks in duration, it is not adequate to fully evaluate the potential subchronic toxicity of DGBE.

The Huntington Research Centre evaluated the subchronic toxicity of DGBE for the Procter and Gamble Company by dermal exposure of six New Zealand rabbits to 30 mg/kg DGBE for 28 days. The major effects observed in males were a decrease in eosinophils and monocytes. In females, there was a decrease in red cells, white cells, neutrophils and hemoglobin, cortical scarring in the kidney and vacuolization of the liver (Ref. 38). The study, however, used only 3 animals per sex and cannot adequately evaluate the subchronic toxicity of DGBE.

A rat inhalation study by Krotov administered DGBE at doses of 0.7 to 13 mg/kg/day for 4 months. At 3.4 and 13.0 mg/kg/day there were changes in the differential leukocyte count, urea level, lactic acid, and pyruvic acid in blood. At 0.7 mg/kg/day there were reversible changes in the kidney, liver, and nervous system (Ref. 39). Due to the inadequate description of the study design and results, this study was not adequate to fully evaluate the subchronic toxicity of DGBE.

In a dose-setting study for a reproductive screen, female mice were treated by gavage with DGBE for 8 consecutive days at five dose levels, 10 mice per dose level. At the two highest dose levels, 1,000 and 2,000 mg/kg/day, disorientation and lethargy were noted on day 1 in all animals immediately after administration of the first dose. All surviving mice given 1,000 mg/kg/day were hypoactive 1 hour after administration. With one exception, all animals that survived the treatment period remained normal throughout the post-dosing phase. Based on the mortality data, a dose level of 500 mg/kg/day was identified as the maximum tolerated dose (Ref. 40). Because this study was an 8-day, screening study, it is not adequate to fully evaluate subchronic toxicity of DGBE.

Although the above studies raised concern about the effect of DGBA and DGBE on the blood, liver, kidney, testes, spleen, and nervous system, they are inadequate for the above stated reasons to fully evaluate the subchronic toxicity of DGBA and DGBE and establish NOEL's for various effects.

4. *Erythrocyte fragility.* A study by the Dow Chemical Company looked at the fragility of erythrocytes from rats dosed with ethylene glycol monobutyl ether (EGBE) and DGBE. It was found that blood cells from rats dosed at ½ and ¼ the LD_{50} of EGBE lysed in saline concentrations (0.55 to 0.80 percent saline) in which only fragile erythrocytes will lyse. In contrast, blood from rats dosed with DGBE at its LD_{50} lysed only in saline concentrations (0.35 to 0.45 percent saline) in which normal erythrocytes will lyse (Ref. 41). This study suggests that erythrocyte fragility as an acute effect is caused by EGBE and not DGBE. The study did not raise the question of how DGBE has caused the reported decrease in erythrocytes in the subchronic studies (Refs. 37 and 38), but bone marrow effects should probably be considered.

The Chemical Manufacturers Association submitted a review of EGBE's hematologic toxicity which concluded that EGBE causes erythrocyte fragility in only certain species, especially rats, which CMA contends are poor hematologic models for humans (Ref. 42). EPA, however, does not believe that data from rats should be discounted, in that data from a sensitive species will provide a greater margin of safety for sensitive humans.

5. *Neurotoxic effects.* No studies in the available literature attempted to investigate the neurotoxicity of DGBA or DGBE. Observations on the subchronic toxicity of DGBE included disorientation and lethargy following oral administration of 1,000 or 2,000 mg/kg to female mice (Ref. 40). Also, Krotov reported irreversible changes in the functional condition of the nervous system (increase in excitability) of rats exposed continuously by inhalation to 13 or 3.4 mg/kg/day DGBE for 4 months. Similar but reversible changes were observed toward the end of the treatment period in rats exposed to 0.7 mg/kg/day (Ref. 39).

In acute studies, DGBE was reported to cause narcosis at doses near its LD_{50} (Refs. 5 and 31).

Studies on the analog, EGBE, included observations which may indicate neurotoxicity at high dose levels. Following a 4-hour inhalation exposure of rats to 867 or 523 ppm EGBE (LC_{50} for females was 450 ppm), observations included loss of coordination, narcosis, and respiratory difficulty (Ref. 30). Also, prompt death following a single oral dose of EGBE is attributed to the narcotic effects of the compound (Ref. 5). At much lower dose levels, pregnant rats were hypoactive after inhalation exposure to 100, 200, or 300 ppm for 6 hours per day (Ref. 44).

Although the available studies suggest a concern for neurotoxicity they are not adequate to fully evaluate the potential for DGBA and DGBE to cause neurotoxic effects.

6. *Developmental neurotoxicity.* There was no information in the available literature on the testing of DGBA or DGBE for developmental neurotoxicity. There were data, however, on two analogs, 2-methoxyethanol and 2-ethoxyethanol in studies by Nelson et al. (Refs. 49 and 50). Neurochemical deviations were observed in rat brains from 21-day-old offspring when either the paternal or maternal groups were

exposed to 25 ppm of 2-methoxyethanol for 6 weeks prior to mating (males) or during gestation (females). In addition, behavioral testing revealed significant differences from controls in avoidance conditioning of offspring of mothers exposed to 25 ppm of 2-methoxyethanol on gestation days 7 to 13 (Ref. 49). With 2-ethoxyethanol, prenatal exposure of pregnant rats to 100 ppm also caused behavioral and neurochemical alterations in offspring (Ref. 50).

Although these analog studies raise concern for the neurotoxic effect of glycol ethers on the developing fetus, they are not adequate to predict the potential developmental neurotoxicity of DGBA and DGBE.

7. *Reproductive effects.* There was no information in the available literature on the testing of DGBA for reproductive effects. Limited information was available on DGBE, but a considerable body of data was found on glycol ether analogs.

In a 90-day study with the analog diethylene glycol monoethyl ether (DGEE), Hall found 5 percent DGEE in drinking water caused testicular atrophy in rats (Ref. 52). Nagano, however, saw no testicular atrophy in mice after dosing with 2 percent diethylene glycol monomethyl ether (DGME) in drinking water for 25 days, although he did see atrophy from similar administration of ethylene glycol methyl ether (EGME) and ethylene glycol ethyl ether (EGEE) (Ref. 53). Foster saw spermatocyte degeneration in rats after dosing with 100 mg/kg/day of EGME and 500 mg/kg/day of EGEE (Ref. 2). In a review by Hardin, it was observed that the methyl and ethyl derivatives of ethylene glycol clearly cause testicular atrophy, but that the butyl derivative apparently did not have the same effect (Ref. 3).

Although the above reviewed analog studies raise a concern for reproductive effects, they are not sufficient to characterize the full reproductive effects of DGBA and DGBE.

The effects of DGBE on fertility and reproductive performance were evaluated in a study done for Procter and Gamble in which male rats were dosed for 60 days and female rats for 2 weeks prior to mating at 0, 250, 500, or 1,000 mg/kg/day by gavage. At each dose level there were 25 rats/sex mated to undosed rats. Controls received deionized water (5 ml/kg) and were similarly mated. Treatment of either males or females at 250 or 500 mg/kg/day had no effect on fertility or reproductive performance. Females dosed at 1,000 mg/kg/day mated with undosed males produced offspring with reduced body weights from days 4 to 21 of lactation, and may have depressed the mean number of implantations suggesting a possible effect on ovulation, fertility or implantation. No delay to time of delivery was observed in any dosed group of females. Male rats dosed at 1,000 mg/kg/day and mated with undosed females resulted in a slight reduction in total implantations, indicating a possible effect on spermatogenesis, fertilization, or implantation, but a clear effect was not indicated by the data (Ref. 45). This study is not adequate to fully evaluate the potential for DGBE to cause reproductive effects because dosing was not conducted for the full 10 weeks before mating, which EPA considers necessary for a reliable study; there was an insufficient number of pregnant females per dose sacrificed at or near term; there was no fertility study of the F_1 generation; there was no study of the reversibility of effects on the F_1 generation; and there was no maternally toxic dose administered. However, because the effects observed in this study were minimal, the Agency believes that modifications to the subchronic test to further evaluate reproductive toxicity will adequately characterize the reproductive effects of DGBE and DGBA. If the results raise questions which require additional testing to resolve, that testing will be proposed at a later date.

8. *Developmental effects.* There was no information in the available literature on the testing of DGBA for developmental effects. Information was available on DGBE and its glycol ether analogs, particularly EGBE.

The available studies on the developmental effects of EGBE (Refs. 44, 54, 57, and 58), ethylene glycol monoethyl ether (EGEE) (Ref. 50), ethylene glycol monomethyl ether (EGME) (Ref. 3), and diethylene glycol monomethyl ether (DGME) (Ref. 55) indicated a potential for embryotoxicity, fetotoxicity and delayed parturition. Although the data from the above reviewed glycol ether analogs indicated developmental effects, the data were not sufficient to characterize the developmental effects of DGBE and DGBA.

In a study conducted by Borriston Laboratories for the National Institute for Occupational Safety and Health, DGBE was tested for reproductive effects in a short-term screening assay in mice (Ref. 40). Treatment of 50 pregnant CD–1 mice with DGBE (500 mg/kg/day) by gavage from gestation day 7 to 14 did not adversely affect the survival or gestational weight gain of the dams, delivery time, birth weight, weight gain, or viability of the F_1 generation through the first 3 postpartum days. However, the dosage used was judged to be an insufficient challenge since there was no evidence of maternal toxicity. When DGBE was subjected to a similar protocol by Schuler at 2,000 mg/kg/day, a dose at which maternal mortality was 8 percent, it likewise caused no adverse effects on any of the parameters mentioned above, except delivery time which was not discussed, suggesting low-concern for developmental toxicity (Ref. 51). In addition, the reproductive study in rats with a limit dose of 1,000 mg/kg/day did not report a delay in time to delivery (Ref. 45, see Unit II. G.7).

In a study done for Procter and Gamble, the teratogenic effects of dermal exposure to DGBE were evaluated (Ref. 46). Twenty rabbits per group were exposed to doses of 100, 300, and 1,000 mg/kg for 4 hours per day on gestation days (GD) 7 to 18. On GD 29 the fetuses were removed for teratological evaluation. In general, the mean numbers of viable and non-viable fetuses, early and late resorptions, post implantation losses, total implantations, and corpora lutea, as well as the mean fetal body weight (by sex) and fetal sex distribution at all dose levels were comparable to control group values. At the low dose level there was a slight increase in the mean postimplantation loss, which was offset by a slight increase in the mean number of total implantations. The number of fetuses and litters with malformations in the three treated groups did not differ significantly from those of the control group. The greatest incidence of anomalies occurred among control and low-dose litters, with a lesser incidence seen in the intermediate and high-dose groups. The most frequently seen malformations, vertebral anomalies with or without associated rib anomalies and fused sternebrae, reflected this pattern. In addition, interventricular septal defects and other heart and major vessel anomalies were observed primarily in the control group. This study appears to be adequate to assess the developmental effects of DGBE in rabbits. Since studies on other glycol ethers indicate rabbits are the most sensitive species for this endpoint and since the Procter and Gamble study was done to the limit dose and administered DGBE by the preferred route of exposure, the Agency will not propose that testing be performed in a second species.

9. *Mutagenic effects.* The mutagenic potential of DGBE was examined by Thompson et al. (Ref. 47) with 3 assays for gene mutation (gene mutation in Salmonella, somatic cells in culture

using mouse lymphoma cells, and *Drosophila* sex-linked recessive lethal), one test for chromosomal aberration (*in vitro* cytogenetics), and one test for DNA repair capacity (unscheduled DNA synthesis). All the tests were negative except the somatic cells in culture test which was positive in the absence of metabolic activation, but negative with activation.

The Agency believes the weight-of-evidence suggests the potential for DGBE to cause gene mutation is low, but that additional testing in this area is necessary to assess the need for oncogenicity testing. Additional tests are also needed to fully evaluate DGBE's potential to induce chromosomal aberrations and to further assess the need for oncogenicity testing.

10. *Oncogenic effects.* There are no data on the oncogenic potential of DGBA or DGBE.

III. Findings

EPA is basing its proposed health effects testing of DGBA and DGBE on the authority of sections 4(a)(1) (A) and (B) of TSCA. Under section 4(a)(1)(B), EPA finds that DGBA and DGBE are produced in substantial quantities and that there may be substantial human exposure to both chemicals in their use, manufacture, and processing. The annual production of DGBA and DGBE is 4.8 and 66.5 million pounds per year, respectively (Ref. 62). Potentially 15 to 20 million consumers and 4,500 occupational painters are exposed to DGBA and DGBE in latex paint at 1 to 10 milligrams per kilogram per day (mg/kg/day) (Refs. 15, 25 and 63). Also, 20 to 41 million consumers and 40,000 janitors are potentially exposed to DGBE in cleaning products at 0.22 to 8.0 mg/kg/day (Refs. 18, 20, 21, 25 and 63). Additionally, there is a potential for dermal absorption in employees of manufacturers and processors.

EPA finds that there are insufficient data to reasonably predict the subchronic, neurotoxic, developmentally neurotoxic, reproductive, chromosomal, and oncogenic effects and pharmacokinetics of human exposure to DGBE and DGBA.

Under section 4(a)(1)(A) EPA finds that the use of DGBE and DGBA in consumer goods may present an unreasonable risk of hematological, reproductive, developmental, developmentally neurotoxic, neurotoxic/behavioral effects, hepatotoxicity, and renal toxicity.

The Agency finds that the available data are sufficient to predict the developmental effects of DGBE and DGBA, but insufficient to reasonably predict or determine the subchronic, kidney, liver, hematological, reproductive, neurotoxic/behavioral, developmentally neurotoxic, chromosomal, and oncogenic effects of exposure to DGBE and DGBA from the use of these compounds. In addition, the available data are insufficient to fully evaluate the pharmacokinetics of these compounds, specifically the effect of administration route on absorption, biotransformation and excretion. The EPA finds that testing is necessary to develop such data. EPA is aware that the U.S. Navy is currently conducting a 90-day subchronic oral study of DGBE in rats. This study does not address all of the Agency's concerns for DGBE; specifically it does not evaluate neurotoxic/behavioral effects and kidney and liver function, or hematological effects during the first two weeks of dosing (Ref. 48).

Existing data adequately demonstrate that DGBA is rapidly hydrolyzed to DGBE. Therefore, EPA finds that separate health effects testing of DGBA is not necessary. The only exception to this is a dermal absorption test of DGBA, since DGBA could be used interchangeably with DGBE in consumer products which involve dermal exposure, therefore the dermal absorption of DGBA relative to DGBE should be known. The pharmacokinetics test of DGBE will compare absorption, biotransformation and excretion by each of the two routes of administration, i.e. dermal and oral, to enable comparison with existing data and the oral subchronic study being conducted by the Navy (Ref. 48), which may be helpful in dose-setting.

Testing should be by the dermal route since it is a major route of exposure. Exceptions to this include the tests for *in vivo* cytogenetics, dominant lethal assay, and heritable translocation, if required, where oral administration is recommended. Although inhalation is also a main route of exposure, it was considered too difficult for test purposes due to DGBE's low vapor pressure.

IV. Proposed Rule

A. Proposed Testing and Test Standards

The Agency is proposing that health effects and pharmacokinetics testing of DGBE and dermal absorption testing of DGBA be conducted in accordance with specific guidelines set forth in 40 CFR Part 798 as enumerated below.

This proposed rule is a tiered rule. The following tests will be incorporated in Tier I: Subchronic toxicity with particular emphasis on reproductive, hematological, liver and kidney effects; neurotoxicity; developmental neurotoxicity; lower-tier mutagenicity (somatic cells in culture using CHO cells, *in vivo* cytogenetics, and dominant lethal test, if triggered); pharmacokinetics and dermal absorption.

The Tier II tests may include the heritable translocation test and the oncogenicity test.

All of the tests will be proposed and finalized at one time. Before Tier II testing is initiated, EPA will hold a public program review if the results of the Tier I tests are positive. A review of all available data will be conducted. Public participation in this program review will be in the form of written public comments or a public meeting. Request for public comments or notification of a public meeting will be published in the **Federal Register**. Should EPA determine, based on the available weight-of-evidence, that proceeding to the heritable translocation test and/or oncogenicity test is no longer warranted, the Agency would propose to repeal the appropriate testing requirements and, after public comment, issue a final amendment to rescind such requirements.

DGBE will be tested for subchronic toxicity (§ 798.2250). In addition to an intermediate and high dose, two low dose levels, 1 and 15 mg/kg/day, have been specified to evaluate whether effects occur at 1 mg/kg/day as reported by Krotov (Ref. 39) and at 15 mg/kg/day, which just exceeds the maximum anticipated human exposure. Exposure will be by the dermal route in the rat. Urinalyses in all animals will be done before the study starts, at day 30 and day 90. There will be a special satellite group dealing with liver dysfunction. The details for the liver dysfunction tests and the special hematologic studies are given in § 799.1560. Subchronic dermal neurotoxicity studies will be performed in the rat: A functional observational battery (§ 798.6050), motor activity (§ 798.6200), and neuropathology (§ 798.6400). These neurotoxicity tests may be combined, using 10 animals for each dose and sex.

Some additional work will be required for the subchronic testing to evaluate reproductive toxicity. Special organs of the reproductive tract to be weighed and evaluated are listed in § 799.1560. The integrity of the various cell stages of spermatogenesis shall be determined with particular attention directed toward achieving optimal quality in the fixation and embedding; preparations of testicular and associated reproductive organ samples for histology should follow the recommendations of Lamb and Chapin (Ref. 66), or an equivalent procedure. This evaluation of the

spermatogenic pattern has been shown by Creasy (Ref. 72) and Foster (Ref. 2) to be the most sensitive indicator of glycol ether-induced testicular injury. Testicular spermatid counts shall be performed; the method described by Johnson et al. (Ref. 67) and Blazak et al. (Ref. 68), or an equivalent method should be used. Epididymal sperm count and sperm morphology shall also be done. Data on female cyclicity shall be obtained by performing vaginal cytology over the last two weeks of dosing; the method of Sadleir (Ref. 69), or an equivalent method should be used. The histopathology of the ovary to evaluate oocyte toxicity shall be performed and should follow the method of Mattison (Ref. 70) and Pederson (Ref. 71), or an equivalent method. A satellite group of animals will be used to evaluate fertility effects at high doses of DGBE in both males and females. If the results of the above testing suggest concern for reproductive effects, the Agency will consider the need for additional reproductive effects testing under section 4(a)(1)(A) of TSCA.

To further assess the need for oncogenicity testing, the Agency is proposing mutagenicity testing in the somatic cells in culture test using Chinese hamster ovary (CHO) cells (§ 798.5300).

To further assess the potential for chromosomal aberrations and the need for oncogenicity testing, DGBE shall be tested in the *in vivo* cytogenetics assay (§ 798.5385) in the rat, mouse, or hamster by oral gavage. If this test is negative, no further testing for chromosomal effects need be done. If the test is non-negative, then a dominant lethal study (§ 798.5450) in the rat or mouse shall be performed by oral gavage. If the dominant lethal test is negative, no further chromosomal aberration studies need be done. If the dominant lethal test is positive, a public program review of the data will be held before the mouse heritable translocation test (§ 798.5460) by oral gavage is performed.

For a more detailed discussion concerning mutagenicity testing and public program review procedures see EPA's final test rule for the C_9 aromatic hydrocarbon fraction published in the **Federal Register** of May 17, 1985 (50 FR 20662).

EPA is requiring developmental neurotoxicity testing in the rat according to § 795.250 published in the **Federal Register** of May 15, 1986 (51 FR 17883) by the dermal route of exposure. The offspring shall be allowed to go to parturition, and those offspring shall be evaluated for behavioral alterations at various stages following birth. The developmental neurotoxicity study shall be performed at doses lower than those which induce severe teratogenic or fetal effects.

The Agency is also proposing pharmacokinetics testing of DGBE and DGBA in rats and guinea pigs to compare absorption, biotransformation and excretion of DGBE by the dermal and oral routes of administration and to determine dermal absorption of DGBA in accordance with § 795.225.

Oncogenicity studies (§ 798.3300) of DGBE will be required in the mouse and rat by dermal absorption unless negative results are obtained in both the somatic cells in culture test using Chinese hamster ovary cells and the *in vivo* cytogenetics assay. EPA will review the mutagenicity and other available data and hold a public program review before oncogenicity testing is performed.

The Agency is proposing that the above-referenced TSCA health effects test guidelines be employed as the test standards for the purposes of the proposed tests for DGBE and DGBA. The TSCA test guidelines for health effects testing specify generally accepted minimal conditions for determining the health effects for substances like DGBE and DGBA to which humans are expected to be exposed. The Agency's review of the TSCA Test Guidelines, which occurs on a yearly basis according to the process described at 47 FR 41857 (September 22, 1982), has found no reason to conclude that these protocols need to be modified significantly.

EPA published in the **Federal Register** certain proposed revisions to these TSCA Test Guidelines to provide more explicit guidance on the necessary minimum elements for each study (51 FR 1522; January 14, 1986). In addition, these revisions will avoid repetitive chemical-by-chemical changes to the guidelines in their adoption as test standards for chemical-specific test rules. EPA is proposing that these modifications be adopted in the test standards for DGBE and DGBA.

B. Test Substance

The EPA is proposing testing of DGBE and DGBA of at least 95 percent purity. The EPA believes that test materials of this purity are available at reasonable cost (Refs. 29 and 37). The Agency has specified relatively pure substances for testing because the EPA is interested in evaluating the effects attributable to the subject compounds themselves. This requirement would lessen the likelihood that any effects seen are due to impurities. Radiolabeled $14_{C\text{-}DGBE}$ will be needed for the pharmacokinetics testing and $14_{C\text{-}DGBA}$ for the dermal absorption study.

C. Persons Required to Test

Section 4(b)(3)(B) specifies that the activities for which the Agency makes section 4(a) findings (manufacture, processing, distribution, use and/or disposal) determine who bears the responsibility for testing. Manufacturers are required to test if the findings are based on manufacturing, which includes production of these chemicals as a byproduct, ("manufacture" is defined in section 3(7) of TSCA to include "import"). Processors are required to test if the findings are based on processing. Both manufacturers and processors are required to test if the exposures giving rise to the potential risk occur during use, distribution, or disposal.

Because the EPA has found that existing data are inadequate to assess the health risks from the use, manufacturing, and processing of these compounds the EPA is proposing that persons who manufacture and/or process, or who intend to manufacture and/or process, DGBA or DGBE at any time from the effective date of the final test rule to the end of the reimbursement period be subject to the testing requirements contained in this proposed rule. The end of the reimbursement period will be 5 years after the last final report is submitted or an amount of time equal to that which was required to develop data if more than 5 years after the submission of the last final report required under the test rule.

Because TSCA contains provisions to avoid duplicative testing, not every person subject to this rule must individually conduct testing. Section 4(b)(3)(A) of TSCA provides that the EPA may permit two or more manufacturers or processors who are subject to the rule to designate one such person or a qualified third person to conduct the tests and submit data on their behalf. Section 4(c) provides that any person required to test may apply to the EPA for an exemption from the requirement. The EPA promulgated procedures for applying for TSCA section 4(c) exemptions in 40 CFR Part 790.

When both manufacturers and processors are subject to a test rule, the EPA expects that manufacturers will conduct the testing and that processors will ordinarily be exempted from testing. As described in 40 CFR Part 790, processors will be granted an exemption automatically without filing applications if manufacturers perform all of the required testing. Manufacturers are

required to submit either a letter of intent to perform testing or an exemption application within 30 days after the effective date of the test rule.

The EPA is not proposing to require the submission of equivalence data as a condition for exemption from the proposed testing for DGBE and DGBA. As noted in Unit IV.B, the EPA is interested in evaluating the effects attributable to the specified compounds and has proposed relatively pure substances for testing.

Manufacturers and processors who are subject to this test rule must comply with the test rule development and exemption procedures in 40 CFR Part 790 for single-phase rulemaking.

D. Reporting Requirements

The EPA is proposing that all data developed under this rule be reported in accordance with its TSCA Good Laboratory Practice (GLP) standards which appear in 40 CFR Part 792.

In accordance with 40 CFR Part 790 under single-phase rulemaking procedures, test sponsors are required to submit individual study plans at least 45 days before the start of each study.

The EPA is required by TSCA section 4(b)(1)(C) to specify the time period during which persons subject to a test rule must submit test data. The Agency is proposing specific reporting requirements for each of the proposed tests as follows:

1. The subchronic toxicity and subchronic neurotoxicity/behavioral tests of DGBE shall be completed and the final results submitted to the Agency within 15 months of the effective date of the final test rule.

2. The Tier I mutagenicity studies of DGBE shall be completed and final results submitted to the Agency as follows: The somatic cells in culture assay using CHO cells within 6 months of the effective date of the final rule; the *in vivo* cytogenetics assay within 8 months of the effective date of the final rule; and the dominant lethal test within 18 months of the effective date of the final rule, if triggered.

3. The developmental neurotoxicity study of DGBE shall be completed and final results submitted to the Agency within one year of the effective date of the final test rule.

4. The pharmacokinetics tests of DGBE and the dermal absorption test of DGBA shall be completed and the final results submitted to the Agency within 1 year of the effective date of the final test rule.

5. The Tier II heritable translocation test, if triggered, shall be completed and final results submitted to the Agency within 45 months of the effective date of a final test rule.

6. The oncogenicity test of DGBE, if triggered, shall be completed and the final results submitted to the Agency within 56 months of the effective date of a final test rule.

Progress reports are required for tests except the somatic cells in culture test. Reports shall be submitted every 6 months, beginning 6 months from the effective date of the final rule or in the case of the dominant lethal assay and Tier II tests, beginning 6 months from the date triggered.

TSCA section 14(b) governs Agency disclosure of all test data submitted pursuant to section 4 of TSCA. Upon receipt of data required by this rule, the Agency will publish a notice of receipt in the **Federal Register** as required by section 4(d).

Persons who export a chemical substance or mixture which is subject to a section 4 test rule are subject to the export reporting requirements of section 12(b) of TSCA. Final regulations interpreting the requirements of section 12(b) are in 40 CFR Part 707. In brief, as of the effective date of this test rule, an exporter of DGBA or DGBE must report to the EPA the first annual export or intended export of either chemical to any one country. The EPA will notify the foreign country about the test rule for the chemical.

E. Enforcement Provisions

The Agency considers failure to comply with any aspect of a section 4 rule to be a violation of section 15 of TSCA. Section 15(1) of TSCA makes it unlawful for any person to fail or refuse to comply with any rule or order issued under section 4. Section 15(3) of TSCA makes it unlawful for any person to fail or refuse to: (1) Establish or maintain records, (2) submit reports, notices, or other information, or (3) permit access to or copying of records required by the Act or any regulation or rule issued under TSCA.

Additionally, TSCA section 15(4) makes it unlawful for any person to fail or refuse to permit entry or inspection as required by section 11. Section 11 applies to any "establishment, facility, or other premises in which chemical substances or mixtures are manufactured, processed, stored, or held before or after their distribution in commerce . . . ." The Agency considers a testing facility to be a place where the chemical is held or stored, and therefore, subject to inspection. Laboratory inspections and data audits will be conducted periodically in accordance with the authority and procedures outlined in TSCA section 11 by duly designated representatives of the EPA for the purpose of determining compliance with any final rule for DGBA and DGBE. These inspections may be conducted for purposes which include verification that testing has begun, that schedules are being met, and that reports accurately reflect the underlying raw data and interpretations and evaluations to determine compliance with TSCA GLP standards and the test standards established in the rule.

The EPA's authority to inspect a testing facility also derives from section 4(b)(1) of the TSCA, which directs EPA to promulgate standards for the development of test data. These standards are defined in section 3(12)(B) of TSCA to include those requirements necessary to assure that data developed under testing rules are reliable and adequate, and such other requirements as are necessary to provide such assurance. The Agency maintains that laboratory inspections are necessary to provide this assurance.

Violators of TSCA are subject to criminal and civil liability. Persons who submit materially misleading or false information in connection with the requirement of any provision of this rule may be subject to penalties which may be calculated as if they never submitted their data. Under the penalty provision of section 16 of TSCA, any person who violates section 15 could be subject to a civil penalty of up to $25,000 for each violation with each day of operation in violation constituting a separate violation. This provision would be applicable primarily to manufacturers or processors that fail to submit a letter of intent or an exemption request and that continue manufacturing or processing after the deadlines for such submissions. This provision would also apply to processors that fail to submit a letter of intent or an exemption application and continue processing after the Agency has notified them of their obligation to submit such documents (see 40 CFR 790.28(b)). Intentional violations could lead to the imposition of criminal penalties of up to $25,000 for each day of violation and imprisonment for up to 1 year. In determining the amount of penalty, the EPA will take into account the seriousness of the violation and the degree of culpability of the violator as well as all the other factors listed in section 16. Other remedies are available to the EPA under section 17 of TSCA, such as seeking an injunction to restrain violations of TSCA section 4.

Individuals as well as corporations could be subject to enforcement actions. Sections 15 and 16 of TSCA apply to

"any person" who violates various provisions of TSCA. The EPA may, at its discretion, proceed against individuals as well as companies themselves. In particular, this includes individuals who report false information or who cause it to be reported. In addition, the submission of false, fictitious, or fraudulent statements is a violation under 18 U.S.C. 1001.

V. Issues for Comment

1. Although the rabbit may be a more sensitive species for some effects and was proposed as the test species for the triethylene glycol ethers proposed test rule, the rat is proposed as the test species due to the greater experience with this animal in the tests proposed in this rule. Use of the rat should produce better data and facilitate interpretation of results. Also, the ITC recommended that subchronic testing be done for renal effects in another species besides rabbit. Should the Agency require rabbit as the test species since it is more sensitive to DGBE for some effects than the rat?

2. The proposed sample size of 10 animals/sex/dose for adult neurotoxicity evaluations may be too small given the degree of variability associated with some of the tasks (e.g. locomotor activity). Would fifteen to twenty animals/sex/dose be more appropriate?

VI. Economic Analysis of Proposed Rule

To assess the potential economnic impact of this rule, EPA has prepared an economic analysis (Ref. 62) that evaluates the potential for significant economic impacts on industry as a result of the required testing. The economic analysis estimates the costs of conducting the required testing and evaluates the potential for significant adverse economic impact as a result of these test costs by examining four market characteristics of DGBA and DGBE:

1. Price sensitivity of demand,
2. Industry cost characteristics,
3. Industry structure, and
4. Market expectations.

If these indications are negative, no further economic analysis is performed; however, if the first level of analysis indicates a potential for significant economic impact, a more comprehensive and detailed analysis is conducted which more precisely predicts the magnitude and distribution of the expected impact.

Total direct testing costs for the proposed rule for DGBE are projected to range from $1.2 million to $1.6 million. This estimate includes the costs for both the required minimum series of tests as well as the conditional tests. The annualized test costs (using a cost of capital of 25 percent over a period of 15 years) range from $323,000 to $424,000. Based on the reported 1984 production volume of 66.5 million pounds, the unit test costs range from 0.49 to 0.64 cents per pound. In relation to a unit sales value of 41 cents per pound for DGBE, these costs represent 1.20 to 1.56 percent of unit sales value.

Total direct testing costs for the proposed testing tor DGBA are estimated to range from $78,000 to $103,000. The annualized test costs range from $20,000 to $27,000. Based on 1984 production of 4.8 million pounds and adjusting for upstream testing costs, because DGBA is manufactured from DGBE, the unit test costs range from 0.83 to 1.09 cents per pound. In relation to the current sale price of 72 cents per pound for DGBA, these costs are equivalent to 1.15 to 1.51 percent of price.

Based on these costs and the uses of the chemicals, the economic analysis indicates that the potential for significant adverse economic impact as a result of this test rule is low.

This conclusion is based upon the following observations:

1. The estimated unit test costs are low;

2. Technical performance tends to offset relatively high product price and contributes to overall price inelasticity of demand;

3. Market expectations appear favorable for DGBE and DGBA; and

4. Producers of DGBE and DGBA also produce the likely substitutes for these chemicals, some of which can be produced in the same production equipment.

Refer to the economic analysis for a complete discussion of test cost estimation and the potential for economic impact resulting from these costs.

VII. Availability of Test Facilities and Personnel

Section 4(b)(1) of TSCA requires the EPA to consider "the reasonably foreseeable availability of the facilities and personnel needed to perform the testing required under the rule." Therefore, the EPA conducted a study to assess the availability of test facilities and personnel to handle the additional demand for testing services created by section 4 test rules. Copies of the study, Chemical Testing Industry: Profile of Toxicological Testing, can be obtained through the NTIS (PB 82–140773). On the basis of this study, the Agency believes that there will be available test facilities and personnel to perform the testing in this proposed rule.

VIII. Public Meetings

If persons indicate to the EPA that they wish to present oral comments on this proposed rule to EPA officials who are directly responsible for developing the rule and supporting analyses, the EPA will hold a public meeting subsequent to the close of the public comment period in Washington, DC. Persons who wish to attend or to present comments at the meeting should call the TSCA Assistance Office (TAO): Toll Free: (800–424–9065); In Washington, DC: (554–1404); Outside the U.S.A. (Operator—202–554–1404), by September 18, 1986. A meeting will not be held if members of the public do not indicate that they wish to make oral presentations. While the meeting will be open to the public, active participation will be limited to those persons who arranged to present comments and to designated EPA participants. Attendees should call the TAO before making travel plans to verify whether a meeting will be held.

Should a meeting be held, the Agency will transcribe the meeting and include the written transcript in the public record. Participants are invited, but not required, to submit copies of their statements prior to or on the day of the meeting. All such written materials will become part of the EPA's record for this rulemaking.

IX. Public Record

The EPA has established a record for this rulemaking, (docket number OPTS–42085). This record contains the basic information considered by the Agency in developing this proposal and appropriate **Federal Register** notices.

This record includes the following information:

A. Supporting Documentation

(1) **Federal Register** notices pertaining to this rule consisting of:

(a) Notice containing the ITC designation of 2-(2-butoxyethoxy)ethyl acetate or DGBA (48 FR 55674; December 14, 1983).

(b) Rules requiring TSCA section 8(a) and 8(d) reporting on 2-(2-butoxyethoxy)ethyl acetate or DGBA (48 FR 55685 and 55686; December 14, 1983).

(c) Advance Notice of Proposed Rulemaking (ANPR) for 2-(2-Butoxyethoxy) Ethyl Acetate; Response to the Interagency Testing Committee (49 FR 45606; November 19, 1984).

(d) Notice of final rule on EPA's TSCA good laboratory practice standards (48 FR 53922; November 29, 1983).

(e) Notice of interim final rule on single-phase test rule development and exemption procedures (50 FR 20652; May 17, 1985).

(f) Notice of final rule on data reimbursement policy and procedures (48 FR 31786; July 11, 1983).

(g) Notice of proposed rule revising TSCA test guidelines (51 FR 1522; January 14, 1986).

(2) Support document consisting of DGBA and DGBE's economic analysis.

(3) TSCA test guidelines and other test methodologies cited as test standards for this rule.

(4) Communications before proposal consisting of:

(a) Written public comments and letters.

(b) Contact reports of telephone conversations.

(c) Meeting summaries.

(5) Reports—published and unpublished factual materials.

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Confidential Business Information (CBI), while part of the record, is not available for public review. A public version of the record, from which CBI has been deleted, is available for inspection in the OPTS Reading Rm. NE–G004, 401 M St., SW., Washington, DC, from 8 a.m. to 4 p.m., Monday through Friday, except legal holidays.

X. Other Regulatory Requirements

A. Executive Order 12291

Under Executive Order 12291, the EPA must judge whether a regulation is "Major" and therefore subject to the requirement of a Regulatory Impact Analysis. The EPA has determined that this test rule is not major because it does not meet any of the criteria set forth in section 1(b) of the Order, i.e., it will not have an annual effect on the economy of at least $100 million, will not cause a major increase in prices, and will not have a significant adverse effect on competition or the ability of U.S. enterprises to compete with foreign enterprises.

This proposed regulation was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291. Any written comments from the OMB to the EPA, and any EPA response to those comments, are included in the rulemaking record.

B. Regulatory Flexibility Act

Under the Regulatory Flexibility Act (15 U.S.C. 601 *et seq.*, Pub. L. 96–354, September 19, 1980), the EPA is certifying that this test rule, if promulgated, will not have a significant impact on a substantial number of small businesses because: (1) They will not perform testing themselves, or will not participate in the organization of the testing effort; (2) they will experience only very minor costs in securing exemption from testing requirements; and (3) they are unlikely to be affected by reimbursement requirements.

C. Paperwork Reduction Act

The information collection requirements contained in this rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB number 2070–0033. Comments on these requirements should be submitted to the Office of Information and Regulatory Affairs; OMB; 726 Jackson Place; Washington, DC 20503 marked "Attention: Desk Officer for the EPA." The final rule package will respond to any OMB or public comments on the information collection requirements.

List of Subjects in 40 CFR Parts 795 and 799

Testing, Environmental protection, Hazardous substances, Chemicals, Recordkeeping and reporting requirements.

Dated: July 23, 1986.

J.A. Moore,

Assistant Administrator for Pesticides and Toxic Substances.

PART 795—[AMENDED]

Therefore, it is proposed that 40 CFR Chapter I be amended as follows:

1. In proposed Part 795 (51 FR 15803):

a. The authority citation for Part 795 continues to read as follows:

Authority: 15 U.S.C. 2603, 2611, 2625.

b. By adding § 795.225 to read as follows:

§ 795.225 Pharmacokinetics test standard.

(a) *Purpose.* The purpose of these studies is to compare: (1) The absorption of diethylene glycol butyl ether (DGBE) after administration by the oral and dermal routes,

(2) The biotransformation of DGBE administered orally and dermally, and

(3) The dermal absorption of DGBE and diethylene glycol butyl ether acetate (DGBA).

(b) *Test procedures*—(1) *Animal selection*—(i) *Species.* The species utilized for investigating DGBE and DGBA shall be the rat, a species for which historical data on the toxicity and carcinogenicity of many compounds are available and which is used extensively in percutaneous absorption studies, and the guinea pig, a species whose skin more closely resembles human skin.

(ii) *Animals.* Adult female Fischer 344 rats and Hartley guinea pigs shall be used. The rats shall be 7 to 9 weeks old and weigh 125 to 175 grams, and the guinea pigs, 5 to 7 weeks old and weigh 400 to 500 grams. Prior to testing, the animals shall be selected at random for each group. Animals showing signs of ill health shall not be used.

(iii) *Animal care.* (A) The animals should be housed in environmentally controlled rooms with 10 to 15 air changes per hour. The rooms should be maintained at a temperature of 25±2 °C and humidity of 50±10 percent with a 12 hour light/dark cycle per day. The rats and guinea pigs should be kept in a quarantine facility for at least 7 days prior to use.

(B) During the acclimatization period, the rats and guinea pigs should be housed in cages on hardwood chip bedding. All animals shall be provided with conventional laboratory diets and water ad libitum.

(2) *Administration of DGBE and DGBA*—(i) *Test compounds.* These studies require the use of both nonradioactive DGBE and DGBA, and of ^{14}C-labeled DGBE and DGBA. The use of ^{14}C–DGBE and ^{14}C–DGBA is required to investigate items under paragraph (a) (1), (2), and (3) of this section because they will facilitate the work and improve the reliability of quantitative determinations.

(ii) *Dosage and treatment.* (A) Two doses shall be used in the study, a "low" dose and a "high" dose. When administered orally, the "high" dose level should ideally induce some overt toxicity such as weight loss. The "low" dose level should correspond to a no observed effect level.

(B) The same "high" and "low" doses shall be administered orally and dermally.

(C) Oral dosing shall be performed by gavage or by administering encapsulated compounds.

(D) For dermal treatment, the doses shall be applied in a volume adequate to deliver the prescribed doses. The backs of the rats and guinea pigs should be lightly shaved with an electric clipper shortly before treatment. The dose shall be applied with a micropipette on a specific area (2 cm^2 for rats, 5 cm^2 for guinea pigs) on the freshly shaven skin. The dosed areas shall be occluded with an aluminum foil patch which is secured in place with adhesive tape.

(iii) *Washing efficiency study.* Before initiation of the dermal absorption studies described in paragraph (b)(2)(iv)(A) and (B) of this section, an initial washing efficiency experiment shall be performed to assess the extent of removal of the applied DGBE and DGBA by washing with soap and water. Groups of four rats and 4 guinea pigs should be lightly anesthetized with sodium pentobarbital. These animals shall then be treated with dermal doses of test compound at the low dose level. Soon after application (5 to 10 min) the treated animals shall be washed with soap and water then housed in individual metabolism cages for excreta collection. Urine and feces shall be collected at 8, 24, and 48 hours following dosing. Collection of excreta shall continue every 24 hours if significant amounts of DGBE, DGBA or metabolites continue to be eliminated.

(iv) *Determination of absorption, biotransformation, and excretion.* (A) Rat studies. (*1*) Eight animals shall be dosed once orally with the low dose of ^{14}C-DGBE.

(*2*) Eight animals shall be dosed once orally with the high dose of ^{14}C-DGBE.

(*3*) Eight animals shall be dosed once dermally with the low dose of ^{14}C-DGBE.

(*4*) Eight animals shall be dosed once dermally with the high dose of ^{14}C-DGBE.

(*5*) Eight animals shall be dosed once dermally with the low dose of ^{14}C-DGBA.

(*6*) Eight animals shall be dosed once dermally with the high dose of ^{14}C-DGBA.

(*7*) In the oral studies, the animals shall be placed in individual metabolic cages for collection of excreta at 8, 24, 48, 72 and 96 hours following administration.

(*8*) In the dermal studies, doses of ^{14}C-DGBE and ^{14}C-DGBA shall be kept on the skin for the duration of the study (96 hours). After application, the animals shall be placed in metabolism cages for excreta collection. Urine and feces shall be collected at 8, 24, 48, 72 and 96 hours.

(B) *Guinea pig studies.* The same procedures shall be followed as specified in paragraph (b)(2)(iv)(A) (*1*) through (*8*) of this section.

(3) *Observation of animals*—(i) *Urinary and fecal excretion.* The quantities of total ^{14}C excreted in urine and feces by rats dosed as specified in paragraph (b)(2)(iv)(A) of this section and guinea pigs dosed as specified in paragraph (b)(2)(iv)(B) of this section shall be determined at 8, 24, 48, 72, and 96 hours after dosing, and if necessary, daily thereafter until at least 90 percent of the dose has been excreted or until 7 days after dosing (whichever occurs first). Four animals from each group shall be used for this purpose.

(ii) *Biotransformation after oral and dermal dosing.* Appropriate qualitative and quantitative methods shall be used to assay urine specimens collected from rats dosed with DGBE as specified in paragraph (b)(2)(iv)(A) of this section and from guinea pigs as specified in (b)(2)(iv)(B) of this section. Any metabolite which comprises greater than 10 percent of the dose shall be identified.

(c) *Data and reporting*—(1) *Treatment of results.* Data shall be summarized in tabular form.

(2) *Evaluation of results.* All observed results, quantitative or incidental, shall be evaluated by an appropriate statistical method.

(3) *Test report.* In addition to the reporting requirements as specified in the TSCA Good Laboratory Practice Standards, 40 CFR Part 792, Subpart J, the following specific information shall be reported:

(i) Species, strain, and supplier of laboratory animals.

(ii) Information on the degree (i.e., specific activity for a radiolabel) and site(s) of labeling of the test substances.

(iii) A full description of the sensitivity and precision of all procedures used to produce the data.

(iv) Relative percent absorption by the dermal route for rats and guinea pigs administered low and high doses of ^{14}C-DGBE and ^{14}C-DGBA.

(v) Quantity of isotope, together with percent recovery of the administered dose, in feces and urine.

(vi) Biotransformation pathways and quantities of DGBE and metabolites in urine collected after administering single high and low oral and dermal doses to rats and guinea pigs.

PART 799—[AMENDED]

2. In Part 799:

a. The authority citation for Part 799 continues to read as follows:

Authority: 15 U.S.C. 2603, 2611, 2625.

b. By adding § 799.1560 to read as follows:

§ 799.1560 Diethylene glycol butyl ether and diethylene glycol butyl ether acetate.

(a) *Identification of test substances.* (1) Diethylene glycol butyl ether (DGBE), CAS Number 112–34–5 and diethylene glycol butyl ether acetate (DGBA), CAS Number 124–17–4 shall be tested in accordance with this section.

(2) Compounds of at least 95 percent purity shall be used as the test substances.

(b) *Persons required to submit study plans, conduct tests, and submit data.* All persons who manufacture or process DGBE and/or DGBA other than as an impurity, from the effective date of this section (44 days after the publication date of the final rule in the **Federal Register**) to the end of the reimbursement period, shall submit letters of intent to conduct testing, submit study plans, and conduct tests or submit exemption applications in accordance with Part 792 of this chapter. Those conducting tests of DGBE must submit data as specified in this section other than the test for DGBA in § 799.1560(c)(6), Subpart A of this Part, and Part 790 of this chapter for single-phase rulemaking. Only persons who manufacture or process DGBA are subject to the requirements for DGBA in § 799.1560(c)(6).

(c) *Health effects testing*—(1) *Subchronic toxicity*—(i) *Required testing.* (A) A 90-day subchronic toxicity test of DGBE shall be conducted in rats by dermal application in accordance with § 798.2250 of this chapter.

(B) Modifications: The following modifications shall be incorporated in § 798.2250 of this chapter for testing DGBE.

(*1*) *Dose level and dose selection.* The requirement under § 798.2250(e)(4)(iii) of this chapter is modified so that the lowest doses to be administered will be 1 mg/kg/day and 15 mg/kg/day.

(*2*) *Observations.* The requirement under § 798.2250(e)(9)(iv) of this chapter is modified so that cage-side observations shall include daily examination for hematuria.

(*3*) *Hematology.* The requirement under § 798.2250(e)(10)(i)(A) of this chapter is modified so that hematology determinations shall be carried out 1, 2, 4, 6, 10, and 14 days following initiation of dosing in addition to the other times specified. At all hematologic determinations additional

measurements shall include a platelet count and mean corpuscular volume.

(4) *Clinical biochemistry.* The requirement under § 798.2250(e)(10)(i)(B) of this chapter is modified so that clinical biochemistry determinations shall be carried out 24 to 48 hours following initiation of dosing in addition to the other times specified.

(5) *Urinalysis.* The requirement under § 798.2250(e)(10)(ii)(B) of this chapter is modified so that urinalyses shall be done at least three times during the test period: just prior to initiation of dosing (baseline data), after approximately 30 days on test and just prior to terminal sacrifice at the end of the test period. The animals shall be kept in metabolism cages, and the urine shall be examined microscopically for the presence of erthrocytes and renal tubular cells, in addition to measurement of urine volume, specific gravity, glucose, protein/albumin and blood.

(6) *Fertility test.* A satellite group to evaluate fertility shall be established. Control males and males administered the high dose shall be mated to non-exposed partners. Control females and females administered the high dose shall be mated to non-exposed partners. If the animals in the high dose group exhibit marked toxicity (e.g. greater than 20 percent weight loss), then the fertility tests shall be conducted in the next highest dose group. Endpoints to be evaluated for the male fertility test shall include percent mated, percent pregnant, pre- and post-implantation loss (with females sacrificed on day 15 of pregnancy). Endpoints to be evaluated for the female fertility test shall include length of gestation, litter size and viability, sex of offspring, birth weight, and survival to day 4.

(7) *Liver-function tests.* The requirement under § 798.2250(e)(10)(ii) of this chapter is modified to add required testing for liver clearance using five rats per sex per dose with sulfobromophthalein (BSP) and a like number using indocyanine green (ICG). The same animals shall be tested at three times during the test period: Just prior to initiation of dosing (baseline data), after approximately 30 days on test and just prior to terminal sacrifice at the end of the test period.

(8) *Organ weights.* The requirement under § 798.2250(e)(11)(ii) of this chapter is modified so that the prostate gland, the epididymes, seminal vesicles and pituitary gland weights shall be determined wet, as soon as possible after dissection.

(9) *Gross pathology.* The requirement under § 798.2250(e)(11)(iii) of this chapter is modified so that the following additional organs shall be preserved in a suitable medium for future histopathologic examination: The vas deferens, the oviducts and the vagina.

(10) *Histopathology.* The requirement under § 798.2250(e)(12)(i) of this chapter is modified so that the accessory genital organs (epididymides, prostate, seminal vesicles) and the vagina shall be examined histopathologically. In addition, the integrity of the various cell stages of spermatogenesis shall be determined, with particular attention directed toward achieving optimal quality in the fixation and embedding; preparations of testicular and associated reproductive organ samples for histology should follow the recommendations of Lamb and Chapin (1985) under paragraph (d)(1) of this section, or an equivalent procedure. Testicular spermatid counts shall be performed; the method described by Johnson *et al.* (1980) and Blazak *et al.* (1985) under paragraph (d) (2) and (3) of this section or an equivalent procedure should be used. Epididymal sperm count and sperm morphology shall also be done. Data on female cyclicity shall be obtained by performing vaginal cytology over the last two weeks of dosing; the method of Sadleir (1978) under paragraph (d)(4) of this section or an equivalent method should be used. The histopathology of the ovary to evaluate oocyte toxicity shall be performed; the method of Mattison (1979) and Pederson (1968) under paragraph (d) (5) and (6) of this section or an equivalent method should be used.

(ii) *Reporting requirements.* (A) The subchronic test shall be completed and the final results submitted to the Agency within 15 months of the effective date of the final test rule.

(B) Progress reports shall be submitted to the Agency every 6 months, beginning 6 months from the effective date of the final rule.

(2) *Neurotoxicity/behavioral effects*—(i) *Required testing.* Neurotoxicity/behavioral tests of DGBE shall be conducted according to a functional observational battery (§ 798.6050 of this chapter), motor activity (§ 798.6200 of this chapter), and neuropathology (§ 798.6400 of this chapter). The tests shall be performed in the rat by dermal administration for a period of 90 days.

(ii) *Modification.* If these three tests are combined, at least ten animals per sex per dose level shall be used.

(iii) *Reporting requirements.* (A) The neurotoxicity/behavioral tests shall be completed and final results submitted to the Agency within 15 months of the effective date of the final rule.

(B) Progress reports shall be submitted to the Agency every 6 months, beginning 6 months from the effective date of the final rule.

(3) *Mutagenicity*—(i) *Required testing.* (A) A somatic cells in culture assay of DGBE using Chinese hamster ovary (CHO) cells shall be conducted in accordance with § 798.5300 of this chapter.

(B) An *in vivo* cytogenetics test of DGBE shall be conducted in rats or mice or hamsters by oral gavage in accordance with § 798.5385 of this chapter.

(C) A dominant lethal assay of DGBE shall be conducted in rats or mice by oral gavage in accordance with § 798.5450 of this chapter if the *in vivo* cytogenetics test is not negative.

(D) A heritable translocation test of DGBE shall be conducted in mice by oral gavage in accordance with § 798.5460 if the dominant lethal assay is positive.

(ii) *Reporting requirements.* (A) Mutagenicity tests shall be completed and final results submitted to the Agency as follows: somatic cells in culture using CHO cells, within 6 months; *in vivo* cytogenetics, within 8 months; dominant lethal assay (if triggered), within 18 months of the effective date of the final rule; and heritable translocation, if required, within 45 months of the effective date of the final rule.

(B) A progress report for the *in vivo* cytogenetics test will be submitted to the Agency within 6 months of the effective date of the final rule. A progress report for the dominant lethal assay shall be submitted to the Agency within 6 months of the date when the test is triggered. Progress reports for the heritable translocation test shall be submitted every 6 months, beginning 6 months after the test is triggered.

(4) *Oncogenicity*—(i) *Required testing.* An oncogenicity test of DGBE shall be required unless negative results are obtained in both of the following tests: the somatic cells in culture assay using Chinese hamster ovary cells and the *in vivo* cytogenetics test. The test shall be performed by dermal application in accordance with § 798.3300 of this chapter. The test species shall be rats and mice.

(ii) *Reporting requirements.* (A) The oncogenicity test, if triggered, shall be completed and the final results submitted to the Agency within 56 months of the effective date of the final rule.

(B) Progress reports shall be submitted every 6 months, beginning 6 months after the test is triggered.

(5) *Developmental neurotoxicity*—(i) *Required testing.* A developmental

neurotoxicity test of DGBE shall be performed in rats in accordance with § 795.250 of this chapter by dermal application as specified under § 798.3300 (b)(6)(ii) of this chapter as published in the **Federal Register** of May 15, 1986 (51 FR 17883).

(ii) *Reporting requirements.* (A) The developmental neurotoxicity test shall be completed and the results submitted to the Agency within 1 year of the effective date of the final test rule.

(B) A Progress report shall be submitted to the Agency 6 months from the effective date of the final rule.

(6) *Pharmacokinetics*—(i) *Required testing.* Pharmacokinetics tests of DGBE and DGBA will be conducted in rats and guinea pigs by the dermal (DGBE and DGBA) and oral (DGBE only) routes of administration in accordance with § 795.225 of this chapter.

(ii) *Reporting requirements.* (A) The pharmacokinetics tests shall be completed and final results submitted to the Agency within 1 year of the effective date of the final rule.

(B) A progress report shall be submitted 6 months from the effective date of the final rule.

(d) *References.* For additional background information the following references should be consulted:

(1) Lamb, J.C. and Chapin, R.E. "Experimental models of male reproductive toxicology", *Endocrine Toxicology*, pp. 85–115. Eds. J.A. Thomas, K.S. Korach, J.A. McLachlan. New York, NY: Raven Press. (1985).

(2) Johnson, L., Petty, C.S., and Neaves, W.B. "A comparative study of daily sperm production and testicular composition in humans and rats", *Biology of Reproduction*, 22:1233–1243. (1980).

(3) Blazak, W.F., Ernst, T.L., and Stewart, B.E. "Potential indicators of reproductive toxicity: Testicular sperm production and epididymal sperm number, transit time and motility in Fischer 344 rats", *Fundamental and Applied Toxicology*, 5:1097–1103. (1985).

(4) Sadleir, R.M.F.S. "Cycles and Seasons." In *Reproduction in Mammals: I. Germ Cells and Fertilization.* Eds. C.R. Austin and R.V. Short. Chapter 4. Cambridge Press, New York. (1978).

(5) Mattison, D.R. and Thorgiersson, S.S. "Ovarian aryl hydrocarbon hydroxylase activity and primordial oocyte toxicity of polycyclic aromatic hydrocarbons in mice." *Cancer Research*. 39:3471–3475. (1979).

(6) Pederson, T. and Peters, H. "Proposal for classification of oocytes and follicles in the mouse ovary. *Journal of Reproduction and Fertility*. 17:555–557. (1968).

(Information collection requirements approved by the Office of Management and Budget under control number 2070–0033)

[FR Doc. 86–17353 Filed 8–1–86; 8:45 am]

BILLING CODE 6560–50–M

Notices

Federal Register
Vol. 51, No. 149
Monday, August 4, 1986

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

DEPARTMENT OF AGRICULTURE

Food and Nutrition Service

Cash in Lieu of Commodities; Value of Donated Commondities for School Year 1986

AGENCY: Food and Nutrition Service, USDA.

ACTION: Notice.

SUMMARY: This notice announces that, since the value of agricultural commodities and other foods provided meets the level of assistance authorized under the National School Lunch Act, there will be no shortfall cash payments to States for the National School Lunch Program for the 1986 school year. The Secretary of Agriculture has determined that the annually programmed level of assistance was met in food donations by June 30, 1986.

FOR FURTHER INFORMATION CONTACT: Beverly King, Chief, Program Administration Branch, Food Distribution Division, Food and Nutrition Service, U.S. Department of Agriculture, Alexandria, Virginia 22302.

SUPPLEMENTARY INFORMATION:

Classification

This action, which implements a mandatory provision of section 6(b) of the National School Lunch Act, has been reviewed under Executive Order 12291 and Secretary's Memorandum 1512–1 and has been classified as "nonmajor."

It meets none of the three criteria in the Executive Order: the action will not have an annual effect on the economy of $100 million or more; will not cause a major increase in costs; and will not have a significant impact on competition, employment, productivity, innovation, or the ability of U.S. enterprises to compete.

The action has also been reviewed with regard to the requirement of Pub. L. 96–354, the Regulatory Flexibility Act of 1980. Robert E. Leard, Administrator, Food and Nutrition Service has determined that it will not have a significant economic impact on a substantial number of small entities. The primary purpose of the action is to notify States that the amount of foods donated will meet the programmed level for the school year 1986; therefore, no payment of cash in lieu of donated foods will be necessary.

Section 6(b) of the National School Lunch Act (the Act), as amended (7 U.S.C. 1755) and the regulations governing cash in lieu of donated foods (7 CFR Part 240) require the Secretary of Agriculture by May 15 of each school year to estimate the value of agricultural commodities and other foods that will be delivered to States during that school year. Under the food distribution regulations (7 CFR Part 250), these foods are used by schools participating in the National School Lunch Program. If the estimated value is less than the total level of commodity assistance authorized under section 6(e) of the Act, the Secretary is required by June 15 of that school year to pay each State administering agency funds equal to the difference between the value of programmed deliveries and the total level of authorized assistance for each State.

For school year 1986 the adjusted minimum national average value of donated foods or payment of cash in lieu thereof per lunch has been established under section 6(e) at 11.75 cents per lunch. In accordance with this requirement, a national entitlement of $448,434,896 in commodities was established for school year 1986. The Secretary has determined that at least that amount was available for delivery nationally by June 30, 1986, to meet the mandated level of assistance.

Notice is hereby given, therefore, that no shortfall cash payments will be made for the school year ending June 30, 1986.

This notice contains no reporting or recordkeeping provision necessitating clearance by the Office of Management and Budget.

(Catalog of Federal Domestic Assistance No. 10.550)

Dated: July 30, 1986.

Robert E. Leard,

Administrator, Food and Nutrition Service.

[FR Doc. 86–17482 Filed 8–1–86; 8:45 am]

BILLING CODE 3410-30-M

DEPARTMENT OF COMMERCE

International Trade Administration

Computer Systems Technical Advisory Committee; Closed Meeting

A closed meeting of the Computer Systems Technical Advisory Committee will be held August 22, 1986, 11:00 a.m. at the Herbert C. Hoover Building, Room 6802, 14th Street & Constitution Avenue NW., Washington, DC. The Committee advises the Office of Technology and Policy Analysis with respect to technical questions that affect the level of export controls applicable to computer systems or technology.

The Committee will meet only in executive session to discuss matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on January 10, 1986, pursuant to section 10(d) of the Federal Advisory Committee Act, as amended by section 5(c) of the Government in the Sunshine Act, Pub. L. 94–409, that the matters to be discussed in the Executive Session should be exempt from the provisions of the Federal Advisory Committee Act relating to open meetings and public participation therein, because the Executive Session will be concerned with matters listed in 5 U.S.C. 552b(c)(1) and are properly classified under Executive Order 12356.

A copy of the Notice of Determination to close meetings or portions thereof is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, Telephone: (202) 377–4127. For further information or copies of the minutes, call Betty Ferrell at (202) 377–2583.

Dated: July 29, 1986.

Margaret A. Cornejo,

Director, Technical Support Staff Office of Technology & Policy Analysis.

[FR Doc. 86–17431 Filed 8–1–86; 8:45 am]

BILLING CODE 3510-DT-M

Hardware Subcommittee of the Computer Systems Technical Advisory Committee; Closed Meeting

A meeting of the Hardware Subcommittee of the Computer Systems Technical Advisory Committee will be held August 21, 1986, 9:30 a.m.–11:30 a.m. at the Herbert C. Hoover Building, Room B–841, 14th Street & Constitution Avenue, NW., Washington, DC. The Hardware Subcommittee was formed to focus on manufacturing and performance characteristics of main frames and other computer hardware.

The Committee will meet only in executive session to discuss matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on January 10, 1986, pursuant to section 10(d) of the Federal Advisory Committee Act, as amended by section 5(c) of the Government in the Sunshine Act, Pub. L. 94–409, that the matters to be discussed in the Executive Session should be exempt from the provisions of the Federal Advisory Committee Act relating to open meetings and public participation therein, because the Executive Session will be concerned with matters listed in 5 U.S.C. 552b(c)(1) and are properly classified under Executive Order 12356.

A copy of the Notice of Determinaiton to close meetings or portions thereof is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, Telephone: (202) 377–4127. For further information contact Betty Farrell at (202) 377–2583.

Dated: July 29, 1986.

Margaret A. Cornejo,

Director, Technical Support Staff, Office of Technology & Policy Analysis.

[FR Doc. 86–17432 Filed 8–1–86; 8:45 am]

BILLING CODE 3510-DT-M

Licensing Procedures and Regulations Subcommittee of the Computer Systems Technical Advisory Committee; Partially Closed Meeting

A meeting of the Licensing Procedures and Regulations Subcommittee of the Computer Systems Technical Advisory Committee will be held August 21 and 22, 1986, in the Herbert C. Hoover Building, 14th Street & Constitution Avenue NW., Washington, DC. The meeting on August 21 will be held in Room B–841 at 2:30 p.m.–5:00 p.m. The meeting on August 22 will be held in Room 6802 at 9:00 a.m.–11:00 a.m. The Licensing Procedures and Regulations Subcommittee was formed to review the procedural aspects of export licensing and recommend areas where improvements can be made.

Open Session

1. Opening Remarks by the Chairman.

2. Presentation of papers or comments by the public on proposed equipment decontrol and discussions on problems experienced in obtaining export licenses.

3. Discussion and formulation of a proposal to revise U.S. controls regarding West/West export licenses.

Executive Session:

4. Discussion of matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The General Session of the meeting will be open to the public and a limited number of seats will be available. To the extent time permits, members of the public may present oral statements to the Committee. Written statements may be submitted at any time before or after the meeting.

The Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on January 10, 1986, pursuant to section 10(d) of the Federal Advisory Committee Act, as amended by section 5(c) of the Government in the Sunshine Act, Pub. L. 94–409, that the matters to be discussed in the Executive Session should be exempt from the provisions of the Federal Advisory Committee Act relating to open meetings and public participation therein, because the Executive Session will be concerned with matters listed in 5 U.S.C. 552b(c)(1) and are properly classified under Executive Order 12356.

A copy of the Notice of Determination to close meetings or portions thereof is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, Telephone: (202) 377–4127. For further information or copies of the minutes, call Betty Ferrell at (202) 377–2583.

Dated: July 29, 1986.

Margaret A. Cornejo,

Director, Technical Support Staff Office of Technology & Policy Analysis.

[FR Doc. 86–17433 Filed 8–1–86; 8:45 am]

BILLING CODE 3510-DT-M

Software Subcommittee of the Computer Syustems Technical Advisory Committee; Closed Meeting

A meeting of the Software Subcommittee of the Computer Systems Technical Advisory Committee will be held August 21, 1986, 12:30 p.m. at the Herbet C. Hoover Building, Room B–841, 14th Street & Constitution Avenue NW., Washington, D.C. The Software Subcommittee was formed to study computer software with the goal of making recommendations to the Department of Commerce relating to the appropriate parameters for controlling exports for reasons of national security.

The Committee will meet only in executive session to discuss matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on January 10, 1986, pursuant to section 10(b) of the Federal Advisory Committee Act, as amended by section 5(c) of the Government in the Sunshine Act, Pub. L. 94–409, that the matters to be discussed in the Executive Session should be exempt from the provisions of the Federal Advisory Committee Act relating to open meetings and public participation therein, because the Executive Session will be concerned with matters listed in 5 U.S.C. 552b(c)(1) and are properly classified under Executive Order 12356.

A copy of the Notice of Determination to close meetings or portions thereof is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, telephone: 202/377–4217. For further information contact Betty Ferrell at (202) 377–2583.

Dated: July 29, 1986.

Margaret A. Cornejo,

Director, Technical Support Staff Office of Technology & Policy Analysis.

[FR Doc. 86–17434 Filed 8–1–86; 8:45 am]

BILLING CODE 3510-DT-M

DEPARTMENT OF EDUCATION

[CFDA No: 84.165]

Applications for New Awards Under the Magnet Schools, Assistance Program for Fiscal Year 1987

Purpose: Provides grants to eligible local educational agencies to support

projects in magnet schools that are part of approved desegregation plans.

Deadline for transmittal of applications: November 7, 1986

Deadline for intergovernmental review comments: January 7, 1987

Applications available: August 29, 1986

Available funds anticipated: The Department has requested $75,000,000, for this program in FY 1987. However, the level of funding is contingent upon final Congressional action.

Estimated range of awards: $200,000–$4,000,000

Estimated average size of awards: $1,705,000

Estimated number of awards: 44

Project period: 24 months

Applicable regulations: (a) The Magnet Schools Assistance Program Regulations, 34 CFR Part 280, and (b) The Education Department General Administrative Regulations, 34 CFR Parts 74, 75, 77, 78, and 79.

For Applications or information contact: M. Patricia Goins, U.S. Department of Education, 400 Maryland Avenue, SW., Room 2023, FOB–6, Washington, DC 20202. Telephone: (202) 472–7960

Program authority: 20 U.S.C. 4051–4062.

Dated: July 30, 1986.

Lawrence F. Davenport,

Assistant Secretary for Elementary and Secondary Education.

[FR Doc. 86–17509 Filed 8–1–86; 8:45 am]

BILLING CODE 4000–01–M

DEPARTMENT OF ENERGY

Statement of Modified Restitutionary Policy in Crude Oil Cases

AGENCY: Department of Energy.

ACTION: Statement of modified restitutionary policy to be implemented in crude oil cases.

SUMMARY: The Department of Energy (DOE) is announcing an amendment to its policy concerning the exercise of its remedial authority under the Emergency Petroleum Allocation Act (EPAA), as amended, 15 U.S.C. 751 *et seq.*, in crude oil cases. This policy supersedes the policy announced at 50 FR 27400 on July 2, 1985. Under the policy announced today, the DOE will implement special refund proceedings under 10 CFR Part 205, Subpart V (Subpart V) in crude oil cases, as discussed below. The funds in those proceedings will be distributed as follows: Up to 20 percent of the funds will be reserved for the payment of claims of eligible parties, and the balance will be divided between the states, territories and possessions of the United States (States), and the U.S. Treasury, as indirect restitution to unidentified injured parties. This revision of DOE's restitutionary policy will permit members of the public to seek restitution, and provide significant sums to the States and the U.S. Treasury for the benefit of all citizens, and thus better serve the public interest than current policy.

FOR FURTHER INFORMATION CONTACT: Carl A. Corrallo, Solicitor, Economic Regulatory Administration, RG–40, 1000 Independence Avenue SW, Room 3H–017, Washington, DC. 20585, 202–252–4387.

SUPPLEMENTARY INFORMATION: The DOE issues this policy statement to modify the Statement of Restitutionary Policy concerning the disposition of crude oil violation refund amounts issued on June 21, 1985 (50 FR 27400, July 2, 1985). Under this Modified Statement of Restitutionary Policy, DOE will exercise its remedial authority under the EPAA in crude oil enforcement cases to provide persons claiming to have been injured by crude oil violations the opportunity to prove injury, and to distribute funds in excess of the amount necessary for the satisfaction of such claims to parties in a manner that achieves indirect restitution: One half of these funds will be distributed to the States, in proportion to their relative consumption of refined petroleum products during the period of price controls, and one half will be distributed to the U.S. Treasury.

Background

This Modified Restitutionary Policy Statement (Statement) is issued in conjunction with the approval on July 7, 1986, of the Settlement Agreement (Agreement) dated May 21, 1986, by the District Court for the District of Kansas (Court) in *The Department of Energy Stripper Well Exemption Litigation*, M.D.L. No. 378. The previous Statement of Restitutionary Policy was also issued in conjunction with M.D.L. 378. *See* 50 FR. 27400.

The history of M.D.L. 378 is best summarized in the Court's Memorandum and Order of September 13, 1983:

> This action is a consolidation of a number of cases brought by oil producers to enjoin the Federal Energy Administration (FEA), now the Department of Energy (DOE), from enforcing Ruling 1974–29, concerning low production oil wells, commonly called "stripper wells." The Court enjoined enforcement of the regulations in question, but ordered the oil producers to deposit into escrow the difference between the stripper well price and controlled price of crude oil affected by the injunction. As of October 31, 1982, the escrow fund, including interest, contained over one billion dollars.
>
> The issue of the validity of the regulations and Ruling was finally settled in *In re the Department of Energy Stripper Well Exemption Litigation*, 690 F. 2d 1375 (Em. App. 1982), *cert. denied*, [459 U.S. 1127] (1983), in which the Temporary Emergency Court of Appeals (TECA) reversed this Court's decision and upheld the rulings and regulations as valid. TECA remanded this action to this Court with instructions to enter judgment for DOE, which judgment has been entered. The effect of TECA's decision is to declare the funds deposited in escrow to be overcharges recovered due to violations of the petroleum pricing regulations. The remaining task is the appropriate dispensation of the escrowed funds. . . .
>
> 578 F. Supp. 586,589.

On September 13, 1983, the Court granted DOE's motion to refer the issue of who may have been injured by the overcharges to the DOE Office of Hearings and Appeals (OHA) to conduct fact-finding concerning who bore the impact of the overcharges at issue in the *Stripper Well* case. The Court also ordered all parties with claims on the escrow to submit specific proof thereof to OHA. The Court also solicited DOE's view on the proper means of restitution in this case.

On December 30, 1983, OHA published in the **Federal Register** a public notice concerning the referral decision (48 FR 57608). That notice discussed the background of this litigation, OHA's preliminary views on the question of injury and specifically requested comments on the impact of the overcharges on Entitlements Program participants, direct purchasers of refined products, resellers, and consumers. OHA received over 100 separate comments, including comments from many entities or groups which were not then parties to M.D.L. 378.

On May 9, 1984, OHA published another public notice in the **Federal Register**, announcing its decision to hold an evidentiary hearing on the issue of tracing the impact of the overcharges on direct purchasers of this crude oil and on participants in the Entitlements Program (49 FR 19718). A full twenty-two days of hearings followed during a three-month period. Sixty-four public and private entities and groups consisting of thousands of members participated actively in the hearings. Over thirty witnesses testified and a record of almost 13,000 pages of written and oral presentations was compiled, including 185 exhibits and 23 briefs. Expert witnesses testified as to the effect of oil overchages upon the consuming public. Econometric evidence (economic studies relying on mathematical and statistical methods) was introduced regarding the specific

injury to the various parties in the economic chain from producer to consumer.

On June 21, 1985, the first part of the report was submitted to the Court by OHA. *Report of the Office of Hearings and Appeals, In Re: The Department of Energy Stripper Well Exemption Litigation, M.D.L. No. 378 (D. Kan.)* (OHA Report). Based on the expert testimony and evidence presented, OHA determined that it was impossible to trace those increased costs through an individual refiner's refining, distribution and marketing operations. However, based on the econometric evidence presented to it, OHA found that refiners were injured, as a class, by 2.7 to 8.1 percent of the overcharges because of their purchases of crude oil, and that the balance of the overcharges were passed on to subsequent purchasers of refined products. Thus, while downstream customers bore, in the aggregate, between 91.9 and 97.3 percent of the overcharge, the injury to individual consumers could not be accurately determined.

On June 21, 1985, DOE submitted to the Court the second part of its report in the form of a Statement of Restitutionary Policy applicable to all crude oil overcharge funds. That policy statement, and an implementing order by OHA, were published in the **Federal Register** on July 2, 1985. 50 FR 27400 and 27402. In the policy statement, DOE announced that, in light of OHA's findings, it would be DOE policy to retain all funds received in crude oil cases in escrow pending Congressional action, and that, if Congress did not act by the end of the current session, *i.e.*, Fall 1986, the funds would be paid to the U.S. Treasury.

Thereafter, Judge Theis presented the parties the opportunity to file statements in opposition to the OHA Report.

It was in that context that the parties discussed the settlement of the issue of the disposition of the Court's escrow. In view of the similarity of restitutionary problems confronting the agency in other crude oil cases, and the uniform treatment of all such cases in the policy statement, DOE concluded that the settlement negotiations provided an appropriate vehicle for exploring the resolution of those issues in all crude oil cases.

The Court and OHA had allowed wide-spread participation on the question of disposition of the escrowed funds, and had compiled an extensive record based on the submissions of the parties. The private parties represented the interests of refiners, marketers and major consumers of petroleum products, *i.e.*, Resellers, Retailers, Airlines, Agricultural Cooperatives, Surface Transporters (Trucks, Buses and Cabs), and Utilities. The public parties, the States and DOE, which have been the beneficiaries of indirect restitution in other crude oil cases, also played very active roles. Thus, the parties possessed the necessary expertise and a broad range of interests to assure that the private interests, and the pubic interest, were recognized.

The Settlement Agreement in the *Stripper Well* case, which preceded this Policy Statement, was the result of seven months of extensive arms-length negotiations among the various public and private interests to determine an appropriate distribution of the funds escrowed by the Court. In arriving at a compromise, every aspect of the receipt and distribution of the funds by each of these parties was thoroughly debated and subsequently approved by the Court. The negotiations took into account the expected recovery of future funds by DOE in the *Stripper Well* and other crude oil cases in fashioning the distribution of funds in the Court's escrow, and examined the anticipated benefits to refiners, marketers and other purchasers including consumers. The Parties reached a settlement and presented their Agreement to the Court on May 22, 1986. On July 7, the Court approved the Settlement Agreement, holding that the Agreement "is fair, reasonable and adequate to all concerned parties" (Slip Op. at 19) and that "the agreement promotes the public interest in a very broad sense." (Slip Op. at 25). The Court directed entry of final judgment with regard to "each and every matter that is compromised, settled or otherwise resolved by the Settlement Agreement, as modified by the Court's opinion and order dated July 7, 1986."

The Agreement, as modified by the judgment, resolves a number of matters. Among them are the distribution of funds collected by the Court, and the distribution of funds collected by DOE in other cases. As to the distribution of funds subject to the Court's jurisdiction in M.D.L. 378, the Agreement establishes a mechanism through individual escrow agreements for each of the groups receiving funds from the *Stripper Well* escrow, *i.e.*, Resellers of refined product; Retailers of gasoline and diesel fuel; Agricultural Cooperatives; domestic Airlines; oil-fired Utilities; Surface Transporters (fleet operators of trucks, buses and taxis); and Rail and Water Transporters (railroads and operators of barges and American flag vessels).

Each group will receive a portion of the funds held in escrow by the Court in M.D.L. 378 to distribute further pursuant to the terms of their individual escrow agreements. The amounts each group will receive under the Agreement includes an amount in anticipation of the crude oil violation funds DOE believes it will recover in the future. As a result, as a condition to submitting a claim to a refund from any of the above escrows, all claimants will be required to sign a waiver releasing any claims they may have against all other crude oil funds.

The Agreement also provides a mechanism for resolving the distribution of crude oil overcharges in all other cases. This Statement is part of the implementation of the terms of the Agreement which provides a mechanism for the consideration of claims for restitution by purchasers of petroleum products in other crude oil enforcement cases. It applies to the agency's consideration of claims by purchasers of crude oil or refined petroleum products for restitution from the funds collected in other crude oil cases. It addresses the distribution of crude oil violation funds obtained in cases alleging violations of the regulations governing the first sale of crude oil (10 CFR Part 212, Subpart D), the crude oil reseller regulations (Part 212, Subpart F and L), and the entitlements regulations (10 CFR 211.66, 211.67, 211.69). The identification and adjudication of the violation in such cases is unaffected by this Statement.

It is anticipated that the Settlement Agreement will resolve, by payments from the M.D.L. 378 funds and accompanying waivers, the vast majority of claims of individual purchasers of crude oil or refined petroleum products. The Agreement also provides that any restitutionary funds not distributed to, or reserved for the claims of, private claimants will be divided between the States and the Federal government, as representatives of the energy consuming public.

Individual Claims for Refund

With respect to individual refund claims, the Agreement provides parties which did not settle or receive funds on M.D.L. 378 the opportunity to present their claims to OHA under the existing OHA Subpart V refund regulations at 10 CFR Part 205. Under the Agreement, OHA will establish an initial reserve fund for these claims of twenty percent of all funds subject to Subpart V proceedings involving alleged crude oil overcharges. The remaining eighty percent will then be divided between the States and the U.S. Treasury, as described below. Accordingly, the policy applicable to crude oil overcharges cases announced on July 2,

1985, is modified to permit the utilization of the current Subpart V regulations, without amendment, to allow individuals and firms to apply for refunds.

OHA will conduct special refund proceedings in accordance with the rules and procedures established in 10 CFR Part 205, Subpart V. Applicants that received refunds in M.D.L. 378 may not file applications, since they will have waived this right as a condition of receiving payment from the M.D.L. 378 funds. All applicants for refunds pursuant to the Department's Subpart V regulations must demonstrate injury as a result of any alleged crude oil violations. The requirement of a demonstration of injury is established in OHA precedent. *See, e.g., Office of Special Counsel/ Tenneco Oil Co.*, 9 DOE ¶82,538 at 85,206 (1982). Applicants for refunds may seek to prove injury through the use of econometric evidence of the type submitted to OHA and OHA may use the findings contained in the OHA Report when reviewing claims.

Consistent with OHA precedent in Subpart V proceedings, OHA will not accept applications for refunds on behalf of classes, associations or trade groups. OHA has previously determined that claims by similar groups are inappropriate in the "first stage" claims process in which OHA reviews claims of direct injury, because they amount to proposals for "indirect" restitution, *i.e.*, to distribute the funds attributable to unidentified parties. *Standard Oil Company (Indiana)/ Diesel Automobile Association*, 11 DOE ¶85,250 (1984).

Restitutionary Distribution to States and DOE

This Statement also alters the restitutionary policy involving the distribution of crude oil overcharge funds attributable to unidentified injured purchasers. The DOE policy heretofore contemplated Congressional action to distribute escrowed funds. DOE has concluded that where it is impossible to trace the effects of violations in order to make direct restitution to the specific persons injured by them, the overcharge monies should be divided by distributing one-half of such funds to the States and depositing the reamining half in the U.S. Treasury. The allocation among the States will be based on the consumption of refined petroleum products within each State during the period of price controls, September 1973 through January 27, 1981. In addition to the fifty states, the District of Columbia the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa and the Northern Marianas will receive distributions of crude oil finds.

Such an indirect restitutionary plan was suggested by the Stripper Well Court in its 1983 Memorandum and Order. Indeed, the Court remarked that it "believes that the equitable goals of restitution would mandate distribution to the state governments or the federal government for use in programs designed to aid energy consumers." 587 F. Supp. 586, 594. Further, a distribution of crude oil overcharge funds to the States for indirect restitutionary purposes was upheld last year by the TECA in *United States* v. *Exxon Corp.*, 773, F.2d. 1240 (Em. App. 1985), *cert. den.*, 106 S. Ct. 892 (1986), *reh'g den.* 54 U.S.L.W. 3663 (Apr. 7, 1986). TECA found in *Exxon* that the disbursement to the States for the benefit of injured citizens would be "equitable, and fair, and a reasonable method of compensating the puiblic", where identification of victims is impossible. The Agreement also provides for payments directly to the United States Treasury which will "benefit the public." *Payne 22* v. *United States*, 762 F.2d. 90, 94 (Em. App. 1985). As the Court has stated, a payment to the Treasury will fulfill the restitutionary goal of req uiring that judicially-determined illegal gains are fully disgorged. 578 F. Supp. at 594.

This policy will be implemented by equally distributing to the States, and to DOE for deposit in the Treasury, eighty percent of all crude oil funds. The remaining twenty percent will be set aside for claims of direct injury. Any balance remaining after the first stage is completed will also be paid to the States and DOE. For all overcharge funds in judicial proceedings where injured persons cannot be readily identified, DOE will recommend to the court that it take action to achieve the distribution of the funds in a manner consistent with this Statement.

Under the terms of the Agreement and the Restitutionary Policy announced today, the States must apply the funds received to benefit the citizens of their States. The States may fund (1) programs approved by OHA in Subpart V proceedings; (2) those programs referenced in the consent order which DOE entered into in 1981 with Standard Oil Company of California (Chevron) (46 FR 52221; October 26, 1981); (3) the types of energy conservation activities set forth in the following legislation:

(a) Part A of the Energy Conservation and Existing Buildings Act of 1976 (relating to weatherization of buildings; 42 U.S.C. 6861 *et seq.*);

(b) Part D of Title III of the Energy Policy and Conservation Act (relating to primary and supplemental State energy conservation programs; 42 U.S.C. 6321 *et seq.*);

(c) Part G of Title III of the Energy Policy and Conservation Act (relating to energy conservation for schools and hospitals; 42 U.S.C. 6371 *et seq.*);

(d) The National Energy Extension Service and Conservation Act (relating to the promotion of conservation by small business and individuals; 42 U.S.C. 7001 *et seq.*); and

(e) The Low-Income Home Energy Assistance Act of 1981 (relating to assisting the poor with home utility bills; 42 U.S.C. 8621 *et seq.*);

and (4) such other restitutionary programs as may be approved by the District Court in the *Stripper Well* case or by OHA. All such funds paid to the States (including interest earned on such funds following distribution to the States) must be applied to benefit petroleum consumers in those States. The States must use funds received to supplement funds available under Federal or State law.

The direct participation of the States in the distribution of overcharge funds is one means of providing the consuming public with restitution. Such State involvement assures that the local needs of the various States are more directly and effectively addressed. By according each State broad discretion in selecting the programs that best meet the needs of its particular citizens, the Agreement, and this Statement, allow the States to benefit various categories of petroleum consumers who may not receive direct refunds under the Agreement. In order to more directly involve consumers, each State will provide public notice and hold a public hearing wherein suggestions for the expenditure of overcharge funds may be fully expressed. Indeed, some States have already provided both notice and hearing.

The States have agreed to consider the specific needs of low-income consumers and to consult with low-income group representatives in formulating plans to expend overcharge funds. Similarly, the States have agreed to provide Indian tribal governments and their citizens within their geographical boundaries an equitable share of benefits from State restitutionary programs and consider the unique requirements of the various tribal groups in reviewing their grant application. Finally, the Governor of each state will provide a Letter of Assurance to the Court and to the DOE that all overcharge funds will be

expended solely in accordance with the Agreement and the terms outlined above.

Funds Affected

As indicated above, the policy announced here is a result of the Court's judgment approving the distribution of funds in the *Stripper Well Litigation* pursuant to the Settlement Agreement. The funds escrowed in that case will be distributed pursuant to other provisions of the Settlement Agreement which was approved by Judge Theis on July 7, 1986. The mechanism for distribution in the Settlement Agreements consists of individual escrow agreements for each of the groups receiving funds from the *Stripper Well* escrow. Each individual escrow provides for the disbursement of the funds received to members of that group through a claims fund. Each of the Escrow Agreements established under the Settlement Agreement provided for an Administrator. The Administrator is required to provide notice to members of the eligible group of the applicable procedures for filing a claim and instructions on where to obtain a claim form.

At the present time, DOE is also holding monies in escrow obtained from other crude oil cases. This Modified Restitutionary Policy Statement will immediately apply to distribution of those funds through the implementation of, or completion of pending, Subpart V proceedings. In light of the releases, waiving and releasing any claims to future crude oil funds, executed by the number of parties participating under the Agreement, it is anticipated that relatively few claims will be submitted in the remaining proceedings. Accordingly, as already noted, DOE will reserve an amount of the funds received in crude oil cases for the satisfaction of direct claims and distribute the balance to the States and DOE. At the outset, DOE will reserve twenty percent of the funds received for direct claims, and will reevaluate that amount based on OHA's experience in receiving claims under this policy. Thus, as funds are received in future cases, DOE may distribute a greater portion of the funds received immediately to the States and DOE.

Conclusion

The policy announced today, in conjunction with the Settlement Agreement in the *Stripper Well* case, is expected to result in the expeditious consideration of claims in crude oil cases, the reduction of challenges to the distribution of funds in such cases, and a reduction of the litigation that has surrounded this issue in the past. Claimants who may not have had the opportunity to recover funds under the Settlement Agreement may file claims in OHA's Subpart V proceedings, and residual funds will be made available immediately to benefit the citizens of the States and the United States.

This policy is effective immediately and will apply to all funds held in escrow in pending crude oil cases as well as to future receipts of funds in such cases.

Issued in Washington, DC, July 28, 1986:

Joseph F. Salgado,

Under Secretary of Energy.

[FR Doc. 86-17454 Filed 8-1-86; 8:45 am]

BILLING CODE 6540-01-M

Economic Regulatory Administration

[Docket Nos. ERA-FC-82-018, 019; EPA Case Nos. 52658-2230-01, 02-82]

Concurrence on Certification and Issuance of Final Prohibition Orders; Powerplant and Industrial Fuel Use of Act of 1987

AGENCY: Economic Regulatory Administration, DOE.

ACTION: Notice of concurrence on certification and issuance of final prohibition orders.

SUMMARY: In accordance with sections 301(c) and 702(a) of the Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. 8301, *et seq.* (FUA or "the Act"), the Economic Regulatory Administration (ERA) of the Department of Energy (DOE) gives notice of (1) its concurrence on a certification of coal-mixture capability filed on March 18, 1982, by Sierra Pacific Power Company (Sierra Pacific) on behalf of its Fort Churchill Generating Station Units Nos. 1 and 2 (hereafter referred to as Fort Churchill 1 and 2); and (2) its issuance of final prohibition orders to Fort Churchill 1 and 2. The certification addresses the technical capability and financial feasibility of Fort Churchill 1 and 2 to use a mixture of petroleum or natural gas and coal or another alternate fuel as their primary energy source. Together with the supporting materials submitted by Sierra Pacific and other information contained in the administrative record of this proceeding, this certification constitutes the basis for the issuance of the final prohibition orders which will prohibit the use of petroleum or natural gas in Fort Churchill 1 and 2 in amounts in excess of the minimum amount necessary to maintain reliability of operation of the units, consistent with maintaining reasonable fuel efficiency of such mixture.

EPA's Notice of Acceptance of Certification and Issuance of Proposed Prohibition Orders to Fort Churchill 1 and 2 was published at 47 FR 27888 (June 28, 1982). At that time, a public comment period was announced for the purpose of receiving written comments and requests, if any, for a public hearing on ERA's proposed prohibition orders. The comment period expired on August 12, 1982; no comments or requests for hearing were received.

The regulations implementing section 301 of FUA and governing this proceeding are 10 CFR Parts 500, 501 and 504, published on April 21, 1982 at 47 FR 17037. Additional information on the proceeding, together with the final prohibition orders and the applicable Compliance Schedule addressed to Fort Churchill 1 and 2 appear in the **SUPPLEMENTARY INFORMATION** section below.

EFFECTIVE DATES: The final prohibition orders take effect on October 3, 1986. The prohibitions set out in the orders shall only take effect provided that the conditions subsequent, contained in the Compliance Schedule (see below) have been met.

FOR FURTHER INFORMATION CONTACT:

John Boyd, Office of Fuels Programs, Economic Regulatory Administration, 1000 Indenpendence Avenue SW., Room GA-093, Washington, DC 20585. Telephone: (202) 252-4523

Steven E. Ferguson, Esq., Office of General Counsel, Department of Energy, Forrestal Building, Room 6A-113, 1000 Independence Avenue SW., Washington, DC 20585. Telephone: (202) 252-6947

The public file containing a copy of this Notice and all other documents and supporting materials related to the proceeding are available for inspection upon request at: Department of Energy, Freedom of Information Reading Room, 1000 Independence Avenue SW., Washington, DC 20585, Monday through Friday, 9:00 a.m. to 4:00 p.m., except Federal holidays.

SUPPLEMENTARY INFORMATION: On March 18, 1982, Sierra Pacific certified to ERA that, subject to the conditions of that certification, it is technically and financially feasible for its powerplants, Fort Churchill 1 and 2, to use a mixture of petroleum or natural gas and coal or another alternate fuel as their primary energy source. As provided in section 301(c) of FUA and 10 CFR 504.4, 504.6, and 504.8, ERA may, after its review and concurrence on a certification of coal-mixture capability, issue a mixtures prohibition order limiting the use of

petroleum or natural gas as the primary energy source in a powerplant to the amount necessary to maintain reliability of unit operation, consistent with maintaining reasonable fuel efficiency of the mixture. Sierra Pacific certified that, for Fort Churchill 1 and 2, the minimum amount of the primary energy source consisting of natural gas or petroleum that would be necessary to achieve these purposes would be the equivalent of thirty (30) percent of each powerplant's annual operating hours, respectively. Sierra Pacific, by letter dated July 15, 1982, clarified that it does not now foresee the need to use these units on petroleum or natural gas. The Company has requested a mixtures order for the sole purpose of providing it with operating flexibility in the future in the event that these units are required for peaking service due to load growth on Sierra Pacific's system that is not accompanied by additions to its generating capacity due to financial or regulatory constraints.

ERA's final regulations applicable to the issuance of prohibition orders to existing powerplants that have been certified as capable of using a petroleum or natural gas and coal (or other alternate fuel) mixture under section 301(c) of FUA are 10 CFR Parts 500, 501, and 504, published at 47 FR 17037 (April 21, 1982). The regulations require that the following actions be completed before issuance of final prohibition orders to Fort Churchill 1 and 2.

(1) *Notice of Order.* Pursuant to 10 CFR 501.52(b)(2), proposed prohibition orders based upon ERA's review of the certification and the supporting information, and including an explanation of the basis therefor, must be issued to the proposed recipients and published in the **Federal Register,** together with a Notice of Acceptance of the certification. ERA complied with this requirement on June 18, 1982 (47 FR 27888, June 28, 1982).

(2) *Public Participation.* Pursuant to 10 CFR 501.52(b)(3), the Notice of Acceptance must commence a 45-day public comment period during which evidence pertaining to the certification and to ERA's proposed action could be submitted and a public hearing could be requested. The public comment period established for Fort Churchill 1 and 2 in the Notice of Acceptance referred to in paragraph (1), above, expired on August 12, 1982, without receipt of either comments or hearing requests.

(3) *NEPA Compliance.* Pursuant to 10 CFR 501.52(b)(3), no final prohibition orders can be issued until any necessary environmental review pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 *et seq.* (NEPA) is completed. ERA completed its NEPA review on October 14, 1983, with the determination of a Finding of No Significant Impact (FONSI) based on the Environmental Assessment (DOE/EA–0221) which is a part of the public record. DOE has determined that the issuance of final prohibition orders to Fort Churchill Units 1 and 2 is not a major Federal action significantly affecting the quality of the human environment and therefore does not require preparation of an environmental impact statement.

Accordingly, after consideration of the whole record in this proceeding, and finding its proposed actions to be supported by reliable, probative, and substantial evidence, ERA concurs in the certification of coal-mixture capability filed by Sierra Pacific on behalf of Fort Churchill 1 and 2 and issues the following final prohibition orders:

Prohibition Orders

Sierra Pacific Power Co., Fort Churchill #1

Docket No. 52658–2330–01–82

Sierra Pacific Power Co., Fort Churchill #2

Docket No. 52658–2330–02–82

Pursuant to section 301(c) of FUA and 10 CFR 504.8, ERA hereby prohibits the above-named powerplants from using petroleum or natural gas as a primary energy source in amounts exceeding the minimum amount necessary to maintain reliability of operation consistent with maintaining the reasonable fuel efficiency of the mixture. For Fort Churchill 1 and 2, these amounts shall be the equivalent of the operation of each of the units on petroleum or natural gas for thirty (30) percent of their respective annual operating hours. Under Section 103(a)(28) of FUA, Sierra Pacific may use an actual mixture of natural gas or petroleum and coal or a combination of such fuels, either simultaneously or alternately, in the powerplants in compliance with these prohibitions. These prohibitions shall take effect provided that the conditions subsequent set forth in the accompanying Compliance Schedule have, [at that time], been met.

As provided in section 301(c) of FUA, and 10 CFR 504.8, these prohibition orders are based upon ERA's findings that:

(1) Fort Churchill 1 and 2 have the technical capability to use a mixture of petroleum or natural gas with coal or another alternate fuel as their primary energy source notwithstanding the fact that some relatively minor modifications must be made to the units beforehand (10 CFR 504.6(c)(3));

(2) It is financially feasible to use a mixture of petroleum or natural gas with coal or another alternate fuel as a primary energy source in Fort Churchill 1 and 2, subject to the satisfactory completion of financing and regulatory arrangements as set forth in the Compliance Schedule. If Sierra Pacific is able to meet the conditions in the attached Compliance Schedule it will be able to obtain sufficient capital to finance the conversions, including all necessary land, coal and ash handling equipment, pollution control equipment, and all other necessary conversion expenditures, without violating any legal restrictions on its ability to raise debt or equity capital, unreasonably diluting shareholder equity, or unreasonably adversely affecting its credit rating (10 CFR 504.6(f)). Further, through the performance of cost calculations based on the formula in 10 CFR 504.12, Sierra Pacific has demonstrated that the total and individual unit costs of using a coal and petroleum or natural gas mixture will not exceed the cost of using imported petroleum, and that, therefore, the economic benefits to be derived from the operation of the converted powerplants using such a mixture are anticipated to be much greater than those that would be derived from the continued operation of the units using petroleum or natural gas exclusively.

These findings are based upon the contents of the certification submitted by Sierra Pacific on behalf of Fort Churchill 1 and 2, on which certification ERA has, above, concurred; upon the data furnished to ERA in support of the certification; and upon all other relevant information contained in the administrative record.

Sierra Pacific's Conversion of Fort Churchill 1 and 2 shall be accomplished as follows:

Compliance Schedule

1. Sierra Pacific shall obtain approval from the Nevada Public Service Commission for the conversion of Fort Churchill 1 and 2 no later than December 1, 1988, such approval to be requested as part of Sierra Pacific's request for approval of its 1988 Resource Plan.

2. Sierra Pacific shall commence detailed engineering and design work no later than December 1, 1988, following the approval of the conversion by the Nevada Public Service Commission referred to in paragraph 1, *supra,* and shall complete detailed engineering and

design work no later than December 1, 1989.

3. Construction work shall be commenced no later than May 1, 1990, and completed, including testing, no later than December 1, 1992.

Upon issuance, the prohibition orders to Fort Churchill 1 and 2 are final for purposes of judicial review (Section 702 of FUA). These orders shall become effective on October 3, 1986.

The prohibitions stated in the orders shall become effective if and when the conditions subsequent contained in the Compliance Schedule have been met. For this purpose, Items 1 through 3 of the Compliance Schedule shall each, separately, be considered to be a condition subsequent. The prohibitions shall not become effective until all such conditions are satisfied. 10 CFR 501.52(c)(2).

Sierra Pacific may at any time amend the certification applicable to Fort Churchill 1 and 2 in order to take into account changes in relevant facts and circumstances, except that no such amendment to the certification may be made after the prohibitions based thereon have become effective (section 301(d) of FUA; 10 CFR 501.52(d)). Upon application by Sierra Pacific and subject to the approval of ERA, Sierra Pacific may amend the compliance schedule which it filed under 10 CFR 504.5(d). Furthermore, after the prohibitions become effective Sierra Pacific may seek rescission or modification of the prohibitions under 10 CFR Part 501, Subpart G—"Requests for Modification or Rescission of a Rule or Order" (10 CFR 501.100—501.103).

Issued in Washington, DC, on July 15, 1986.

Robert L. Davies,

Director, Office of Fuels Programs, Economic Regulatory Administration.

[FR Doc. 86-17455 Filed 8-1-86; 8:45 am]

BILLING CODE 6450-01-M

Federal Energy Regulatory Commission

[Docket No. G-4918-000, et al.]

Sun Exploration & Production Co., et al.; Applications for Certificates, Abandonments of Service and Petitions to Amend Certificates[1]

July 30, 1986.

Take notice that each of the Applicants listed herein has filed an application or petition pursuant to section 7 of the Natural Gas Act for authorization to sell natural gas in interstate commerce or to abandon service as described herein, all as more fully described in the respective applications and amendments which are on file with the Commission and open to public inspection.

Any person desiring to be heard or to make any protest with reference to said applications should on or before August 14, 1986, file with the Federal Energy Regulatory Commission, Washington, DC 20426, petitions to intervene or protests in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Persons wishing to become parties to a proceeding or to participate as a party in any hearing therein must file a petition to intervene in accordance with the Commission's Rules.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Applicants to appear or to be represented at the hearing.

Kenneth F. Plumb,

Secretary.

Docket No. and date filed	Applicant	Purchaser and location	Price per Mcf	Pressure base
G-4918-000, D, July 14, 1986	Sun Exploration and Production Co., P.O. Box 2880, Dallas, Texas 75221-2880.	Phillips Petroleum Co., Panhandle Field, Moore County, Texas.	(1)	
G-17385-002, D, July 26, 1986	do	El Paso Natural Gas Co., Blanco Field, San Juan County, New Mexico.	(2)	
CI65-592-000, D, July 14, 1986	do	Lone Star Gas Co., North Dibble Field, McClain County, Oklahoma.	(3)	
CI86-581-000 (CI65-1189), B, July 14, 1986.	do	Arkla Energy Resources, South Pine Hollow Field, Pittsburg, County, Oklahoma.	(4)	
CI86-569-000 (CI73-142), B, July 10, 1986.	do	Tennessee Gas Pipe Line Co., Waveland Field, Hancock County, Mississippi.	(5)	
CI86-570-000 (CI76-677-001), B, July 10, 1986.	do	El Paso Natural Gas Co., Drinkard Field, Lea County, New Mexico.	(6)	
CI86-571-000 (CI79-55), B, July 10, 1986.	do	El Paso Natural Gas Co., Deck Cisco Sand Field, Sterling County, Texas.	(7)	
CI86-579-000, D, July 14, 1986	do	Transcontinental Gas Pipe Line Corp., Ship Shoal Block 113 Field, Offshore Louisiana.	(8)	
CI86-584-000 (CI75-652), B, July 14, 1986.	do	Northern Natural Gas Co., Drinkard Field, Lea County, New Mexico.	(9)	
CI86-586-000 (CI73-443), B, July 18, 1986.	do	Northern Natural Gas Co., Sherard Field, Chouteau County, Montana.	(10)	
CI67-1768-000, July 16, 1986	Phillips 66 Natural Gas Co., 336 HS&L Bldg., Bartlesville, Okla. 74004.	El Paso Natural Gas Co., Lusk Gasoline Plant Tailgate located in Lea County, New Mexico.	(8)	
CI71-683-001, July 16, 1986	do	El Paso Natural Gas Co., Lusk Gasoline Plant Tailgate and Lee Gasoline Plant Tailgate both located in Lea County, New Mexico.	(11)	
CI72-594-000, July 16, 1986	do	El Paso Natural Gas Co., Lusk Gasoline Plant Tailgate located in Lea County, New Mexico.	(11)	
CI72-732-000, July 16, 1986	do	do	(11)	
CI76-268-004, July 14, 1986	do	do	(11)	
CI75-75-002, D, July 11, 1986	Phillips Petroleum Co., 336 HS&L Bldg., Bartlesville, Okla. 74004.	El Paso Natural Gas Co., Permian Basin Area, Eddy County, New Mexico.	(12)	
CI68-667-000, D, July 14, 1986	ARCO Oil and Gas Co., Division of Atlantic Richfield Co., P.O. Box 2819, Dallas, Texas 75221.	Texas Eastern Transmission Co., Coteau Freme Field, Assumption Parish, Louisiana.	(13)	
CI75-78-002, D, July 14, 1986	do	Southern Natural Gas Co., Chandeleur Sound Block 25, St. Bernard Parish, Louisiana.	(26)	
CI77-567-002, D, July 18, 1986	Union Exploration Partners, Ltd., P.O. Box 7600, Los Angeles, Calif. 90051.	Northern Natural Gas Co., Blocks 34 and 60 Vermilion Area, Offshore Louisiana.	(14)	
CI73-49-000, D, July 14, 1986	BHP Petroleum (Americas) Inc., P.O. Box 1201, Wichita, Kansas 67201.	United Gas Pipe Line Co., Blanconia Field, Bee County, Texas.	(15)	
CI86-588-000 (CI72-752), B, July 18, 1986	do	United Gas Pipe Line Co., Red Fish Bay-Mustang Island Field, Nueces County, Texas.	(16)	

[1] This notice does not provide for consolidation for hearing of the several matters covered herein.

Docket No. and date filed	Applicant	Purchaser and location	Price per Mcf	Pressure base
CI86-591-000 (CI63-46), B, July 17, 1986.	....do	Southern Natural Gas Co., Grange Field, Lawrence County, Mississippi.	(17)	
CI86-582-000 (G-10133-001), B, July 15, 1986.	CNG Producing Co., P.O. Box 2115, Tulsa, Okla. 74101.	ANR Pipeline Co., Cedderdale Field, Woodward County, Oklahoma.	(18)	
CI86-589-000, B, July 17, 1986	Hamon Operating Co., (Succ. to Jake L. Hamon)/ Don O. Chapell, Suite 3900, Republic Bank Tower, 325 North St. Paul, Dallas, Texas 75201-3902.	United Gas Pipe Line Co., State Tract No. 8, Corpus Christi Bay, Nueces County, Texas.	(19)	
CI86-563-000, B, July 3, 1986	Petro-Lewis Corp., P.O. Box 2250, Denver, Colorado 80201.	Transcontinental Gas Pipe Line Corp., OCS Lease G-2591, South Marsh Island, Area Block 146, Offshore Louisiana.	(20)	
CI86-564-000, B, July 3, 1986	Petro-Lewis Funds, Inc., P.O. Box 2250, Denver, Colorado 80201.	....do	(20)	
CI86-567-000, B, July 10, 1986	Ruby Davisson Oil & Gas Co., TERM, Energy Corp., Agent, 110 North Spring St., Harrisville, West Virginia 26362.	Consolidated Gas Transmission Corp., Ritchie County, West Virginia.	(21)	
CI86-568-000, B, July 10, 1986	Ted Weiner, *et al.*, 2100 Texas Crude Bldg., 801 Travis, Houston, Texas, 77002.	Tennessee Gas Transmission Co., Bully Camp Field, La Fourche Parish, Louisiana.	(22)	
CI86-572-000, B, July 10, 1986	E.K. Edmiston, 1260 KSB&T Bldg., Wichita, Kansas 67202.	Northwest Central Pipeline Corp., Sharon Northwest Field, Barber County, Kansas.	(23)	
CI86-573-000, B, July 10, 1986	....do	....do	(23)	
CI86-574-000, B, July 10, 1986	Edmiston Oil Co., 1260 KSB&T Bldg., Wichita, Kansas 67202.	Northwest Central Pipeline Corp., Rhodes Field, Barber County, Kansas.	(23)	
CI86-576-000 (G-14386), B, July 10, 1986.	Cities Service Oil & Gas Corp., P.O. Box 300, Tulsa, Oklahoma 74102.	Hope Gas, Inc., Pifer Mountain Field, Preston County, West Virginia.	(24)	
CI86-577-000 (CI71-660), B, July 11, 1986.	Chevron U.S.A. Inc., P.O. Box 7309, San Francisco, Calif. 94120-7309.	Southern Natural Gas Co., Main Pass 107, Offshore Louisiana.	(25)	
CI86-578-000, B, July 11, 1986	First City Natl. Bank of Midland, Trustee (formerly The Midland, Natl. Bank, Trustee), P.O. Box 10966, Midland, Texas 79702.	Northern Natural Gas Co., Flying "W" (Ellenburger) Field, Winkler County, Texas.	(26)	
CI86-592-000, B, July 21, 1986	Dry Run Oil & Gas Company, TERM Energy Corp., Agent, 110 North Spring St.	Consolidated Gas Transmission Corp., Ritchie County, West Virginia.	(23)	
CI86-593-000, B, July 21, 1986	Hoover Oil & Gas Co., TERM Energy Corp., Agent, 110 North Spring St., Harrisville, West Virginia 26362.	Consolidated Gas Transmission Corp., Ritchie County, West Virginia.	(23)	
CI86-587-000, B, July 18, 1986	Joseph P. Mueller, 1010 First City Tower II, Corpus Christi, Texas 78478.	Texas Eastern Transmission Corp., Brandt Field, Goliad County, Texas.	(27)	
CI86-602-000, D, July 21, 1986	Sun Exploration and Production Co	El Paso Natural Gas Co., Drinkard Field, Lea County, New Mexico.	(28)	
CI86-604-000, B, July 21, 1986	CNG Producting Co	Northern Natural Gas Co., Granite Wash Field, Hemphill County, Texas.	(29)	
CI86-605-000, B, July 21, 1986	....do	Colorado Interstate Gas Co., Hutchinson County, Texas.	(29)	
CI86-607-000, B, July 21, 1986	....do	Florida Gas Transmission Co., North St. Rose Field, St. Charles Parish, Louisiana.	(29)	

[1] Property sold to Childress Royalty Company.
[2] Property sold to Texaco, Inc.
[3] Property sold to Monsanto Oil Company.
[4] Not used.
[5] Property sold to Barnes Petroleum, Inc.
[6] Property sold to Earth Scientists, Ltd.
[7] By order issued May 5, 1986, Applicant's certificate was amended to reflect its assignment to Brady W. Production, Inc., by assignment dated December 27, 1984. Applicant requests that its certificate be terminated and its rate schedule be canceled because Applicant's research group now indicates that Applicant retained no interest in the dedicated acreage.
[8] Property sold to A. W. Dugan Petroleum.
[9] Sun sold all of their leaseholdings to Odeco effective 11-1-83.
[10] Property sold to John H. Hendrix Corp.
[11] Applicant is filing for an additional delivery point.
[12] Release of acreage due to plugging and abandonment of the James C #1 located in the SW/4 Section 35-21S-30E, Eddy County, New Mexico.
[13] The Soc. 87-01 was released July 19, 1976, and four leases were surrendered June 1980.
[14] Effective 1-24-83, Union assigned its 50% interest in the Block 34 dedicated depth to Amoco Production Company. Production ceased on 3-7-85 and the lease on Block 34 (OCS-G-3120) expired on 6-5-85.
[15] Property sold to S. J. Morrison, Jr.
[16] Property sold to Sola Oil Company, Inc.
[17] Property sold to Marsh Engineering, Inc.
[18] Property sold to Cottonwood Oil Field Services, Inc.
[19] Commercial production ceased in April 1983 and State Tract No. 8 Lease surrendered in 1984.
[20] All commercial production has ceased.
[21] No longer able to economically produce wells due to age of wells (low reservoir pressure) and consistantly high line pressure maintained by Consolidated Gas. The imposition by purchaser of a $75 month fee was also a major factor in this decision.
[22] Well died after shut in period. Attempts to restore production failed. Abandoned as non-commercial well.
[23] Uneconomical.
[24] The purchaser has advised that effective 1-1-84 gas purchases under the subject Rate Schedule was transferred to its intrastate gas system.
[25] Production has ceased, all the leases have expired and the last sales occurred in January 1986.
[26] Lease No. LA-11118 released, relinquished and surrendered unto lessor. State Lease 4540 sold to Royal International Petroleum Corporation.
[27] Applicant states that it has begun and plans to continue production enhancement work on the Jablonski Unit #1 gas well in order to qualify under NGPA section 107(c)(5), and also plans to drill a new well; the current contract price is not enough to justify the work and contract provisions do not contain language to provide reasonable revenue to justify drilling a new well. Applicant states that Texas Eastern has indicated its unwillingness to enter into a rollover contract to include pricing or take provisions to justify the economics of production enhancement work or drilling a new well. Applicant states it proposes to sell instead to Corpus Christi Gas Gathering, Inc.
[28] Depletion of reserves.
[29] Property sold to Ronald D. Thomas and Odis H. McClellan, Jr.
[30] Property sold to American International Energy Corporation.

Filing Code: A—Initial Service; B—Abandonment; C—Amendment to add acreage; D—Amendment to delete acreage; E—Total succession; F—Partial Succession.

[FR Doc. 86-17484 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

Hood Goldsberry et al.; Applications for Abandonment

[Docket No. C186-575-000 et al.]

July 29, 1986.

Take notice that each of the applicants listed herein has filed an application pursuant to section 7 of the Natural Gas Act for authorization to abandon service as described herein.

The circumstances presented in the applications meet the criteria for consideration on an expedited basis, pursuant to § 2.77 of the Commission's rules as promulgated by Order Nos. 436 and 436-A, issued October 9, and December 12, 1985, respectively, in

Docket No. RM85–1–000, all as more fully described in the applications which are on file with the Commission and open to public inspection.

Any person desiring to be heard or to make any protest with reference to said applications should on or before 15 days after the date of publication of this notice in the **Federal Register**, file with the Federal Energy Regulatory Commission, Washington, DC 20426, a petition to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceedings. Any person wishing to become a party in any proceeding herein must file a petition to intervene in accordance with the Commission's rules.

Kenneth F. Plumb,

Secretary.

Docket No. and date filed	Applicant	Purchaser and location	Price per 1,000 ft [3]	Pressure base
CI86–575–000 B, July 10, 1986 [1]	Hood Goldsberry, *et al.*, 1200 American Tower, Shreveport, LA [2] 71101.	United Gas Pipe Line Co., Armogene Fontenot Well No. 3, Washington Field, St. Landry Parish, LA.	[3]	
CI86–585–000, B, July 16, 1986 [4]	Northern Pump Company, 1010 Hudson's Bay Centre, 1600 Stout Street, Denver, CO 80202–3130.	Tennessee Gas Pipeline Co., a Division of Tenneco Inc., Weslaco Field, Hidalgo County, TX.	[5]	
CI86–590–000, B, July 17, 1986	Deminex U.S. Oil Co., 700 N. Pearl, Lock Box 340, Suite 500, Dallas, TX 75201.	Transcontinental Gas Pipe Line Corp., West Stuart Field, LaSalle County, TX.	[6]	
CI86–599–000, B, July 22, 1986	Danden Petroleum, Inc., *et al.* P.O. Box 5084, Borger, TX 79008.	Northern Natural Gas Co., Division of Enron Corp., Texas Hugoton and Hanna's Draw Fields, Hansford and Sherman Counties, TX.	[7]	

[1] Additional information received July 21, 1986.

[2] The *et al.* parties are David Crow, Equity Oil Company, William Abroms, Irwin I. Muslow, Harry R. Freyer, Karen W. Freyer, M. & M. Producing Co. and Marvin L. Muslow. Hood Goldsberry operates under small producer certificate in Docket No. CS72–153. David Crow operates under small producer certificate in Docket No. CS71–841.

[3] Applicant requests authorization for permanent abandonment for itself and all other interest holders in the Armogene Fontenot Well No. 3 dedicated to United. Applicant states that the contract expired in 1984, the well has been shut in, the gas is NGPA section 104-rollover gas and United is not paying for gas not taken. Applicant states that the well is capable of producing approximately 300 Mcf per day and that it desires to seek another market for its gas.

[4] Additional material received July 18, 1986.

[5] Applicant, a small producer certificate holder in Docket No. CS71–22, requests authorization to abandon the sale of gas to Tennessee under an October 1, 1958, contract. Applicant requests permanent abandonment for sales from four NGPA section 108 stripper gas wells and their spacing units and requests limited-term abandonment authorization for up to two years from two NGPA section 106(a) interstate rollover gas wells to the extent Tennessee does not purchase such 106(a) gas. Applicant proposes to sell the subject gas to other buyers. Applicant states Tennessee has consented to such abandonment by letters dated June 11 and July 15, 1986. Applicant further states Tennessee has stopped taking, and has declined to pay for, gas produced from the NGPA section 108 stripper gas wells and if that situation were to continue, Applicant would face payment of shut-in royalties, the wells would not be commercially viable, and the result would be the waste of significant reserves.

The wells involved are listed below.

Well name	NGPA category	Approximate deliverability (Mcf/d)
Henry #1	108	55
Solether No. 1	108	10
C. W. Hall #1	108	55
Harris #3	108	55
Lockart No. 1	106(a)	150
Williams No. 1	106(a)	550
		875

[6] Applicant requests abandonment, or limited-term abandonment for a term of three years, for its sale to Transco from the Ezra Alderman No. 1 Well, an NGPA section 104 post-1974 gas well. Applicant states that remaining recoverable reserves are 40 MMcf. Applicant states that it is a small producer certificate holder under Order No. 411. Applicant states that during the period January 1, 1986, through May 31, 1986, Transco curtailed production from the affected well in excess of 60% of the time; Applicant has been advised that nearly 100% curtailment is expected until such time as the gas market improves to the degree necessary for the well's contract price to be competitive; the well is in its latter stages of depletion and continued curtailment could result in the premature plugging and abandoning of the property due to the continuing operating cost. Applicant proposes instead to enter into a spot market sales contract with Transco Energy Marketing Company.

[7] Applicant, a small producer certificated in Docket No. CS71–231, seeks permisssion to abandon sales of gas to Northern under a contract dated May 14, 1974, as amended. Applicant states that it had filed suit against Northern in *Danden Petroleum, Inc.* v. *InterNorth, Inc.*, No. CA–2–850086, (N.D. Tex., Amarillo Div.). In settlement of this litigation and other contract disputes, Applicant states that it and Northern have entered into a take-or-pay settlement and release agreement dated May 5, 1986, by which Northern agrees to release all gas from acreage subject to the contract for a two-year term. Applicant seeks abandonment for a period beginning with the effective date of a contract to be executed with a third-party purchaser and extending for a period of two years. Applicant further states that of the 13 producing wells that are subject to the contract, ten qualify pursuant to NGPA section 108, and three qualify pursuant to NGPA section 104 (two are 1973–1974—biennium and one is replacement contract or recompletion gas). One additional well which is not currently producing would qualify pursuant to NGPA section 104 (1973–1974—biennium) if it is returned to producing status. Applicant states that the wells have a total average flow rate of approximately 1,591 Mcf/d.

Filing Code: A—Initial Service; B—Abandonment; C—Amendment to add acreage; D—Amendment to delete acreage; E—Total Succession; F—Partial Succession.

[FR Doc. 17485 Filed 8–1–86; 8:45 am]

BILLING CODE 6717–01–M

[Docket No. CS68–41, et al.]

Frank W. Cass, d/b/a Cass Oil Co. (Frank W., Cass), et al.; Applications for Small Producer Certificates [1]

July 29, 1986.

Take notice that each of the Applicants listed herein has filed an application pursuant to section 7(c) of the Natural Gas Act and § 157.40 of the Regulations thereunder for a small producer certificate of public convenience and necessity authorizing the sale for resale and delivery of natural gas in interstate commerce, all as more fully set forth in the applications which are on file with the Commission and open to public inspection

Any person desiring to be heard or to make protest with reference to said applications should on or before August 14, 1986, file with the Federal Energy Regulatory Commission, Washington, D.C. 20426, petitions to intervene or protests in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Persons wishing to become parties to a proceeding or to participate as a party in any hearing therein must file petitions to intervene in accordance with the Commission's Rules.

Under the procedure herein provided for, unless otherwise advised, it will be

[1] This notice does not provide for consolidation for hearing of the several matters covered herein.

unnecessary for Applicants to appear or be represented at the hearing.

Kenneth F. Plumb,

Secretary.

Docket No.	Dated filed	Applicant
CS68-41	[1] 7-9-86	Frank W. Cass, d/b/a Cass Oil Company (Frank W. Cass), 2727 Routh Street, Dallas, TX 75201.
CS84-30-000	[2] 6-23-86	Margaret Doris McConnell (J. W. McConnell, Jr.), 600 North Broadway, Hobart, OK 73651
CS84-72-000	[3] 6-11-86	Rosewood Resources, Inc. (Rosewood Resources (POC), Inc.) 2600 Thanksgiving Tower, Dallas, TX 75201.
CS86-83-000	6-30-86	Joseph T. Dawson, 630 Bayview Federal Building, Corpus Christi, TX 78474.
CS86-84-000	7-18-86	Robert Craig Bonnet, d.b.a. Renegade Oil & Gas, P.O. Box 4140, Del Rio, Texas 78841.
CS86-86-000	7-22-86	John A. Smith, P.O. Box 2501, Midland, Texas 79702.

[1] By letter dated July 8, 1986, Applicant requests that the small producer certificate issued to Frank W. Cass in Docket No. CS68-41 be redesignated under the name of Frank W. Cass, d/b/a Cass Oil Company.

[2] By letter dated February 6, 1986, filed June 23, 1986, as supplemented by letter dated June 25, 1986, received July 1, 1986, Margaret Doris McConnell, the heir of J.W. McConnell, Jr., requests that his small producer certificate be redesignated in her name.

[3] By letter dated June 4, 1986, filed June 11, 1986, as supplemented by letter dated June 25, 1986, received June 30, 1986, Applicant states that on December 31, 1984, Rosewood Resources (HPC), Inc. [(HCP)], a small producer certificate holder in Docket No. CS84-74-000, merged with and into Rosewood Resources (POC), Inc. [(POC)], small producer certificate holder in Docket No. CS84-72-000. As of the date of merger (POC), the surviving corporation, relinquished its corporate title and changed its name to Rosewood Resources, Inc. Applicant requests redesignation of the small producer certificate issued in Docket No. CS84-72-000 to (POC) under the name of Rosewood Resources, Inc., and termination of the small producer certificate issued to (HPC) in Docket No. CS84-74-000.

[FR Doc. 86-17486 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Project No. 9165-001]

Lorida Associates; Surrender of Preliminary Permit

July 30, 1986.

Take notice that Lorida Associates, Permittee for the proposed Structure 65 B Project No. 9165, has requested that its preliminary permit be terminated. The permit was issued on December 13, 1985, and would have expired November 30, 1988. The project would have been located on the Kissimmee Canal, in Okeechobee County, Florida.

The Permittee filed the request on July 14, 1986, and the preliminary permit for Project No. 9165 shall remain in effect through the thirtieth day after issuance of this notice unless that day is a Saturday, Sunday, or holiday as described in 18 CFR 385.2007, in which case the permit shall remain in effect through the first business day following that day. New applications involving this project site, to the extent provided for under 18 CFR Part 4, may be filed on the next business day.

Kenneth F. Plumb,

Secretary

[FR Doc. 86-17487 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Project No. 9166-001]

Moore Haven Associates; Surrender of Preliminary Permit

July 30, 1986.

Take notice that Moore Haven Associates, Permittee for the proposed Structure 77 Project No. 9166, has requested that its preliminary permit be terminated. The permit was issued on December 11, 1985, and would have expired November 30, 1988. The project would have been located on the Caloosatchee River, in Glades County, Florida.

The Permittee filed the request on July 14, 1986, and the preliminary permit for Project No. 9166 shall remain in effect through the thirtieth day after issuance of this notice unless that day is a Saturday, Sunday, or holiday as described in 18 CFR 385.2007, in which case the permit shall remain in effect through the first business day following that day. New applications involving this project site, to the extent provided for under 18 CFR Part 4, may be filed on the next business day.

Kenneth F. Plumb,

Secretary

[FR Doc. 86-17488 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket Nos. QF86-767-000, et al.]

Small Power Production and Cogeneration Facilities; Qualifying Status; Certificate Applications, etc.; Crescent Hotels, et al.

Comment date: Thirty days from publication in the **Federal Register**, in accordance with Standard Paragraph E at the end of this notice.

Take notice that the following filings have been made with the Commission.

1. Crescent Hotels

[Docket No. QF86-767-000]

July 30, 1986.

On May 27, 1986, Crescent Hotels (Applicant), of 2735 East Camelback Road, Phoenix, Arizona 85016 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The topping-cycle cogeneration facility will be located at Phoenician Golf and Tennis Resort at 6000 East Camelback Road, Scottsdale, Arizona. The facility will consist of two reciprocating engine generators and necessary heat recovery system. Heat recovered by the system will be used in an absorption chiller for building air conditioning. The primary energy source will be natural gas. The net electric power production capacity will be 1200 kW. Installation will begin in December 1986.

2. York County Solid Waste and Refuse Authority

[Docket No. QF86-920-000]

July 23, 1986.

On July 16, 1986, York County Solid Waste and Refuse Authority (Applicant), of P.O. Box 2054, R.D. #2, Stewartstown, Pennsylvania 17363 submitted for filing an application for certification of a facility as a qualifying small power production facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The small power production facility will be located in Manchester Township, York County, Pennsylvania. The facility will consist of three (3) refuse-fired steam generators and a fully-condensing turbine generator. The net electric power production capacity will be 25.7 megawatts. The primary energy source will be biomass in the form of municipal solid waste. Fossil fuels will be used for start-up purposes and will not exceed 25 percent of the total energy input to the facility in any calendar year.

3. American REF-FUEL Company of Bergen County

[Docket No. QF86-917-000]

July 30, 1986.

On July 11, 1986, American REF-FUEL Company of Bergen County (Applicant), of P.O. Box 3151, Houston, Texas 77253, submitted for filing an application for certification of a facility as a qualifying small power production facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The small power production facility will be located in Ridgefield, New Jersey and will consist of four solid waste-fired boilers and two steam turbine generator units. The net electric power production capacity will be 79.8 MW. The primary source of energy will be biomass in the form of commercial and municipal solid waste.

4. Power Resources, Inc.

[Docket No. QF86-930-000]

July 30, 1986.

On July 17, 1986, Power Resources, Inc. (Applicant), of 2200 Post Oak Boulevard, Suite 509, Houston, Texas 77056 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The proposed Big Spring topping-cycle cogeneration facility will be located on I-20 East at the Fina Oil and Chemical Company, Big Spring, Texas 79721. The facility will be developed in three phases. In the final phase the facility will consist of two combustion turbine-generators, two heat recovery steam generators and an extraction/condensing steam turbine-generator. The extracted steam will be sold to Fina Oil and Chemical Company. The steam will be used in the oil refining processes. The net electrical power production capacity will be 126.8 MW. The primary energy sources will be natural gas and refinery offgas. The installation of the facility will commence in November 1986.

5. Science Park Energy Associates

[Docket No. QF86-907-000]

July 30, 1986.

On July 8, 1986, Science Park Energy Associates (Applicant), of 5 Science Park, New Haven, Connecticut 06511 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The topping-cycle cogeneration facility will be located in New Haven, Connecticut and will consist of a gas turbine generator, a waste heat recovery boiler, and an extraction/condensing steam turbine generator. The thermal energy will be used for district heating and cooling. The electric power production capacity will be 25 MW. The primary source of energy will be natural gas. Construction of the facility will begin July 1, 1987.

Standard Paragraphs

E. 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 385.214). All such motions or protests should be filed on or before the comment date. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17489 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. CP74-9-004]

Consolidated Gas Supply Corp., et al.; Petition To Amend

July 25, 1986.

Take notice that on July 10, 1986, Consolidated Gas Supply Corporation (Consolidated), 445 West Main Street, Clarksburg, West Virginia 26301, Columbia Gas Transmission Corporation (Columbia), P.O. Box 1273, Charleston, West Virginia 25325-1273, National Fuel Gas Supply Corporation (National Fuel), 10 Lafayette Square, Buffalo, New York 14203, and Texas Eastern Transmission Corporation (Texas Eastern), 1019 19th Street, NW., Washington, DC 20036, referred to collectively as Petitioners, filed in Docket No. CP74-9-004 a petition to further amend the order issued on January 22, 1974,[1] in Docket No. CP74-9, as amended in Docket No. CP74-9-000, pursuant to section 7(c) of the Natural Gas Act, to authorize the transportation and exchange of natural gas at three additional delivery points, all as more fully set forth in the petition on file with the Commission and open to public inspection.

Pursuant to a letter agreement dated May 1, 1986, between Consolidated and Columbia, the Petitioners propose the receipt and delivery of such exchange gas at three additional existing interconnections between Columbia and Consolidated known as the Sheldon and Letchworth Connections on Consolidated's Line Numbers 546 and 14, respectively, located in Wyoming County, New York, and the Meadville Connection on Consolidated's Line Number TL-406 in Crawford County, Pennsylvania. Petitioners state that, as the exchange arrangement presently exists, Consolidated and National deliver quantities of natural gas produced by Consolidated and National in Indiana and Cambria Counties in Pennsylvania to Columbia. Texas Eastern delivers equivalent quantities to Consolidated for Columbia's account and deducts said equivalent quantities from quantities it has scheduled for delivery to Columbia under Texas Eastern's currently effective service agreement with Columbia. Consolidated then redelivers to National its portion of the aforementioned production. It is anticipated, Petitioners state, that Columbia's purchase from Texas Eastern described above will fall short of those quantities delivered by Consolidated and National to Columbia and likewise the equivalent quantities to be redelivered to Consolidated for Columbia's account by Texas Eastern. Accordingly, it is stated, Texas Eastern will not longer be able to receive from Columbia quantities equivalent to those it would otherwise be obligated to deliver to Consolidated under the exchange arrangement. To the extent Columbia receives from Consolidated and National more gas than can be redelivered to Columbia's account to Consolidated via Texas Eastern, Columbia will be able to utilize the three additional exchange points to deliver such difference directly to Consolidated, it is explained.

Any person desiring to be heard or to make any protest with reference to said petition to amend should on or before August 8, 1986, file with the Federal Energy Regulatory Commission, Washington, DC 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commission's Rules.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17490 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[1] This proceeding was commenced before the F.P.C. By joint regulation of October 1, 1977 (10 CFR 1000.1), it was transferred to the Commission.

[Project No. 4641-001]

George Danner III and James P. Fenster; Application for Surrender of License

July 29, 1986.

Take notice that George Danner III and James P. Fenster have filed an application for surrender of their license for the Danner-Fenster Project No. 4641.

On August 28, 1981, a license was issued to George Danner III and James P. Fenster to construct, operate, and maintain Project No. 4641 on an unnamed creek near Juneau, Alaska. The project consisted of a diversion structure, a pipeline, and a powerhouse containing a 12-kW generating unit.

Licensee states that the project was abandoned after suffering considerable damage in a landslide on September 26, 1984. The Forest Service states that the Tongass National Forest land that the licensee's dam and waterline occupied has undergone satisfactory site reclamation.

Anyone desiring to be heard or to make any protest about this action should file a motion to intervene or a protest with the Federal Energy Regulation Commission in accordance with the requirements of the Commission's Rules of Practice and Procedure, 18 CFR 385.211 or 385.214 (1985). Comments not in the nature of a protest may also be submitted by conforming to the procedures specified in section 385.211 for protests. To become a party, or to participate in any hearing that might be held, a person must file a motion to intervene in accordance with the Commissions's Rules. Any comments, protest, or motion to intervene must be filed with the Secretary of the Commission on or before August 29, 1986. The Commission's address is: 825 North Capitol Street NE., Washington, DC 20426.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17491 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Project No. 5334-006]

Joint Ypsilanti Recreation Organization; Application for Approval To Develop Project Lands

Take notice that the Joint Ypsilanti Recreation Organization, licensee for the Ford Lake Project, FERC No. 5334, located in Washtenaw County, Michigan, filed on June 17, 1986, an application for authorization to develop certain lands to enhance fish and wildlife and recreational use. This project is designated as the North Bay Reclamation Project, which is located on the Huron River near the City of Ypsilanti, Michigan.

The proposed project is the second phase of the North Bay Reclamation Project. Phase I was completed in early 1985. It consisted of constructing three islands and filling 23,500 cubic yards of dredge material along the shoreline. Phase II consists of constructing an additional island and five foot bridges connecting the existing three islands and the proposed island. Approximately 24,000 to 48,000 cubic yards of dredge material would be used to construct the proposed island.

Correspondence with the licensee should be directed to: Mr. Kenneth R. Oscarson, Orchard, Hiltz and McCliment, Inc., 34935 Schoolcraft Road, Livonia, Michigan 48150.

Agency Comments—Federal, State, and local agencies are invited to file comments on Phase II of the project. (A copy of the plans for Phase II of the reclamation project may be obtained by agencies directly from the licensee. If an agency does not file comments within the time set below, it will be presumed to have no comments.

Comments, Protests, or Motions to Intervene—Anyone may file comments, a protest, or a motion to intervene in accordance with the requirements of Rules 211 or 214, 18 CFR 38.211 or 385.214, 47 FR 19025-26 (1983). In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments protests, or motions to intervene must be filed on or before September 15, 1986.

Filing and Service of Responsive Documents—Any filings must bear in all capital letters the title "COMMENTS", "PROTESTS", or "MOTION TO INTERVENE", as applicable, and the Project Number of this notice. Any of the above named documents must be filed by providing the original and those copies required by the Commission's regulations to: Kenneth F. Plumb, Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426. An additional copy must be sent to: Fred E. Springer, Director, Division of Project Management, Office of Hydropower Licensing, Federal Energy Regulatory Commission, Room 203 RB at the above address. A copy of any motion to intervene must also be served upon each representative of the licensee specified in the third paragraph of this notice.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17492 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. CP86-624-000]

Northwest Central Pipeline Corp.; Request Under Blanket Authorization

July 25, 1986.

Take notice that on July 16, 1986, Northwest Central Pipeline Corporation (Northwest), P.O. Box 3288, Tulsa, Oklahoma 74101, filed in Docket No. CP86-624-000 a request pursuant to §§ 157.205 and 157.211 of the Regulations under the Natural Gas Act (18 CFR 157.205 and 157.211) for authorization to construct and operate a new sales tap for the direct interruptible sale of natural gas to Kaw Economic Development Authority (Kaw) under authorization issued in Docket No. CP82-479-000 pursuant to section 7 of the Natural Gas Act, all as more fully set forth in the request on file with the Commission and open to public inspection.

Northwest proposes to construct and operate a sales tap for the direct interruptible sale of approximately 14,000 Mcf of natural gas annually and 137 Mcf of natural gas on a peak day for use in Kaw's greenhouse in Kay County, Oklahoma. Northwest indicates that the estimated cost of the proposed facilities is $6,680, which cost would be paid from treasury cash.

Northwest states that it would not need to acquire any new natural gas supply to make the proposed sale and such sale would not have any detrimental effect on any of its customers.

Any person or the Commission's staff may, within 45 days after issuance of the instant notice by the Commision, file pursuant to Rule 214 of the Commission's Procedural Rules (18 CFR 385.214) a motion to intervene or notice of intervention and pursuant to § 157.205 of the Regulations under the Natural Gas Act (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefor, the proposed activity shall be deemed to be authorized effective the day after the time allowed for filing a protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for

authorization pursuant to section 7 of the Natural Gas Act.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17493 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. CP86-606-000]

Pacific Gas Transmission Co.; Application

July 23, 1986.

Take notice that on July 8, 1986, Pacific Gas Transmission Company (Applicant), 160 Spear Street, San Francisco, California 94105-1570, filed in Docket No. CP86-606-000, as supplemented July 14 and 16, 1986, an application pursuant to section 7(c) of the Natural Gas Act for a certificate of public convenience and necessity authorizing (i) the exchange of up to 25,000 Mcf of gas per day with Northwest Central Pipeline Corporation (Northwest Central) and (ii) the sale of such exchange gas to Pacific Gas and Electric Company (PG&E), all as more fully set forth in the application which is on file with the Commission and open to public inspection.

Specifically, Applicant seeks authority to exchange up to 25,000 Mcf of gas per day which Northwest Central gathers for Applicant in the Northeast Wamsutter area in Sweetwater and Carbon Counties, Wyoming, by causing a thermally equivalent volume of gas to be delivered to Applicant at the facilities of Northwest Pipeline Corporation (Northwest), in the Moxa area in Lincoln County, Wyoming, and to sell such exchanged gas to PG&E at the point of delivery.

It is explained that the proposed exchange of gas would be pursuant to an existing gas gathering and exchange agreement between Applicant and Northwest Central dated December 31, 1979, and would be a continuation of an arrangement which commenced May 1, 1980, pursuant to section 311(a) of the Natural Gas Policy Act and terminated May 1, 1986, when Northwest Central's authorization ended.

Applicant states that the proposed exchange would be on a thermally equivalent basis, free of transportation charges to either party. Applicant would pay Northwest Central its cost of service for gathering Applicant's gas in the Northeast Wamsutter area, it is stated. Applicant states that it has no presently existing or proposed facilities necessary to effectuate the proposed exchange.

It is further explained that Applicant and PG&E have entered into a gas purchase and sale agreement dated June 26, 1986, which provides, in part, that the price paid to Applicant by PG&E for such exchange gas would be equal to Applicant's purchase price of the gas plus all related gathering and exchange fees or transportation costs actually incurred. Applicant also requests that such agreement be accepted by the Commission as a special rate schedule.

Applicant states that PG&E has entered into transportation agreements with Northwest and others whereby the gas purchased by PG&E would be transported to its market area.

Any person desiring to be heard or to make any protest with reference to said application should on or before August 5, 1986, file with the Federal Energy Regulatory Commission, Washington, D.C. 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commission's Rules.

Take further notice that, pursuant to the authority contained in and subject to jurisdiction conferred upon the Federal Energy Regulatory Commission by sections 7 and 15 of the Natural Gas Act and the Commission's Rules of Practice and Procedure, a hearing will be held without further notice before the Commission or its designee on this application if no motion to intervene is filed within the time required herein, if the Commission on its own review of the matter finds that a grant of the certificate is required by the public convenience and necessity. If a motion for leave to intervene is timely filed, or if the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Applicant to appear or be represented at the hearing.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-17494 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. CI86-447-000, et al.]

United Gas Pipe Line Co.; Applications For Blanket Limited-Term Abandonment and Blanket Limited-Term Certificates With Pre-Granted Abandonment Filed By Pipeline Companies on Behalf of Their Producer-Suppliers

July 29, 1986.

Take notice that the pipeline companies (Applicants) listed herein have filed applications pursuant to section 7 of the Natural Gas Act for blanket limited-term abandonment and blanket limited-term certificates with pre-granted abandonment as described herein.[1]

The circumstances presented in the applications meet the criteria for consideration on an expedited basis, pursuant to § 2.77 of the Commission's rules as promulgated by Order Nos. 436 and 436-A, issued October 9, and December 12, 1985, respectively, in Docket No. RM85-1-000, all as more fully described in the applications which are on file with the Commission and open to public inspection.

Any person desiring to be heard or to make any protest with reference to said applications should on or before 15 days after the date of publication of this notice in the **Federal Register**, file with the Federal Energy Regulatory Commission, Washington, DC 20426, a petition to intervene or a protest in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceedings. Any person wishing to become a party in any proceeding herein must file a petition to intervene in accordance with the Commission's rules.

Kenneth F. Plumb,

Secretary.

[1] This notice does not provide for consolidation for hearing of the several matters covered herein.

Docket No. and date filed	Applicant	Purchaser and location	Price per mcf	Pressure base
CI88-447-000 A 5-30-86 [1]	United Gas Pipe Line Company,[2] P.O. Box 1478, Houston, Texas 77251-1478.	United Gas Pipe Line Company, Various locations	[3]	
CI86-450-000 B 5-30-86 [1]	do [2]	do	[3]	
CI86-510-000 A 6-13-86 [4]	Tennessee Gas Pipeline Company, a Division of Tenneco Inc.,[2] P.O. Box 2511, Houston, Texas 77001	Tennessee Gas Pipeline Company, a Division of Tenneco Inc., Various locations.	[5]	
CI86-513-000 B 6-13-86 [4]	do [2]	do	[5]	
CI86-594-000 A 7-18-86	Northwest Central Pipeline Corporation,[2] P.O. Box 3288, Tulsa, Oklahoma 74101.	Northwest Central Pipeline Corporation, various locations.	[6]	
CI86-596-000 B 7-18-86	do [2]	do	[6]	
CI86-595-000 A 7-21-86	Sea Robin Pipeline Company,[2] P.O. Box 1478, Houston, TX 77251-1478.	Sea Robin Pipeline Company, Various locations	[7]	
CI86-597-000 B 7-21-86	do [2]	do	[7]	

Footnotes:

[1] Additional information received July 10, 1986.

[2] Applicant is filing on behalf of its producer-suppliers.

[3] Applicant is requesting partial, limited-term abandonment of certain sales by its producer-suppliers, subject to Applicant's right to recall, for a period of three years commencing with the date Applicant accepts such authorization, subject to an extension for additional three years by Applicant with prior Commission approval. Applicant states that it will have approximately 234 Bcf of deliverability available during 1987 under NGPA categories 102, 104, 106, 108 and 109, a substantial portion of which could be subject to the requested authorizations. Applicant also requests a blanket certificate with pre-granted abandonment authorizing the sale for resale in interstate commerce of gas released by Applicant and subject to the requested abandonment authorization. Applicant's request for pre-granted abandonment is for any sale for resale made under the requested blanket certificate at the end of the requested three-year term or any extension thereof or such earlier time as Applicant may recall such temporarily released gas. Applicant states that the producer affected by its applications have been subjected to substantially reduced takes with concomitant reductions in revenue. Applicant states it has filed also, on May 30, 1986, in conjunction with these applications, a separate application in Docket No. CP86-526-000 for blanket certificate authorization to provide non-discriminatory, open-access transportation pursuant to Order Nos. 436 and 436-A. Applicant states that because of the severe decline in its markets, Applicant has been engaged in on-going negotiations with its producer-suppliers seeking concessions from contractual price and take-or-pay provisions. The requested authorizations will, according to Applicant, significantly facilitate such negotiations, greatly contribute toward a solution to Applicant's current surplus deliverability problem, and help alleviate Applicant's potential take-or-pay exposure to the benefit of Applicant's sales customers. Applicant additionally requests waiver of any Commission regulations necessary to permit its applications to be accepted for filing and granted.

[4] Additional information received July 22, 1986.

[5] Applicant requests that the Commission issue an order granting the following authorizations: (1) Authority for limited-term partial abandonment of certain certificated sales to Tennessee; (2) a blanket limited-term certificate of public convenience and necessity with pre-granted abandonment authorizing the sale in interstate commerce of such partially abandoned volumes. Applicant states that the requested authorizations are a prerequisite to successful negotiations on contract modifications between Applicant and its producer-suppliers. Applicant is engaged in seeking concessions fromits producer-suppliers to afford relief from contractual price and take-or-pay obligations. Applicant states that the requested authorizations are necessary to permit the marketing of contractually released excess gas supplies that qualify under NGPA sections 102(d), 104, 106(a), 108 and 109. Applicant states that its daily deliverability qualifying under such sections is approximately 2.1 Bcf. Applicant states that the proposed term of the authorizations is for a period of three years commencing with the effective date of the requested authorizations. In addition, Applicant requests that the abandonment authorization be specifically subject to Applicant's right to recall and purchase the released supplies at any time as required in Applicant's reasonable discretion to provide adequate service to its customers at the lowest reasonable cost. Applicant further states that no transportation authorization is requested herein and that transportation on Applicant's system of any gas sold pursuant to authority granted under its requested herein will be provided under individual certificate authorizations under section 7(c) of the Natural Gas Act. Applicant states that its producer-suppliers subject to the applications have been subjected to substantially reduced takes without payment, and as such Applicant requests expeditious treatment and such other and further relief as may be appropriate.

[6] Applicant requests that the Commission issue an order (1) authorizing the blanket partial, limited-term abandonment by Applicant's producer-suppliers of certain sales for resale of natural gas in interstate commerce, to the extent such gas is released by agreement between Applicant and its producer-suppliers, and (2) issuing a blanket certificate of public convenience and necessity authorizing the sale for resale in interstate commerce, with pre-granted abandonment, of natural gas released by Applicant and for which the requested, blanket abandonment authorization is granted, all to be affective for a limited term of five (5) years commencing with the effective date of the authorizations requested under the applications. Applicant also requests on behalf of those producer-suppliers waiver of the Commission's Regulations as to the establishment and maintenance of rate schedules relating to the sales for which such authorizations are requested, including 18 CFR 154.94(h), 154.94(k) and Part 271, all as more fully set forth in the applications which are on file with the Commission and open to public inspection. Applicant states that the blanket abandonment and sales authorization sought in these applications shall not apply, without further Commission authorization, to (1) volumes qualifying under section 104 of the NGPA (except post-1974 gas and 1973-74 biennium gas) in excess of twenty-five percent (25%) of the total volumes released by Applicant until, as a result of Commission rule or order or legislation, the price being paid for such gas is increased above the price specified in Table II *of* § 271.101(a) of the Commission's Regulations for gas of the applicable vintage (excluding any unused price established pursuant to section 104(b)(2) of the NGPA), and (2) released volumes which reduce below 15.0 years Applicant's reserve-life index determined by dividing (a) the sum of Applicant's total proven contracted reserves, including all reserves temporarily released, by (b) the sum for the most recent twelve billing periods of Applicant's sales (excluding off-system best efforts sales) and the volumes transported by Applicant under its Rate Schedule FTS subject to Standby Service. Applicant states that the applications are filed pursuant to Article II, section 3 of a proposed Stipulation and Agreement in Docket Nos. RP86-32, *et al.*, filed simultaneously, under which Applicant will implement non-discriminatory open-access transportation consistent with the intent and purpose of Order Nos. 436, *et al.*, issued in Docket No. RM85-1-000. Applicant states that during contract negotiations with producer-suppliers Applicant may agree to temporarily release gas supplies subject to the Commission's NGA sales and abandonment jurisdiction that are in excess of volumes required by Applicant for its current system requirements in order to allow the producer-suppliers to seek alternative markets for such excess gas. Applicant states that the gas subject to its requests qualifies under NGPA sections 102(d), 104, 106(a), 107(c)(5) 108 or 109. Applicant states that the abandonment and sales authorizations requested in the applications are a prerequisite to mutually beneficial contractual modifications between Applicant and its producer-suppliers and would, among other things, reduce Applicant's take-or-pay obligations to the benefit of its sales customers. Applicant requests that the abandonment authorization be specifically subject to Applicant's right to recall and purchase the released supplies at any time as required in Applicant's reasonable discretion to provide adequate service to its customers. Applicant states that no transportation authority is requested under the application and that all transportation by Applicant of gas subject to the applications would occur under the terms of Applicant's blanket transportation authority or other NGA section 7 authorizations.

[7] Applicant requests (1) blanket limited-term abandonment of all certificated producer sales of natural gas to Applicant, regardless of Natural Gas Policy Act (NGPA) pricing category; (2) a blanket limited-term certificate of public convenience and necessity with pre-granted abandonment authorizing interruptible sales of released gas in interstate commerce; (3) waiver of the requirement for producer rate filings under Parts 154 and 271 of the Commission's Regulations with respect to producers' spot market sales of released gas under the program; and (4) expedited consideration of Applicant's applications in accordance with the policy enunciated in Order 436, in recent orders issued by the Commission encouraging releases and spot sales programs, and in the policy statement set out in 18 CFR 2.77 on take-or-pay obligations. Applicant states that by its applications it seeks to address an immediate crisis situation on its system resulting from existing and threatened legal actions against it for injunctive relief and decrees of specific performance in various courts that have the potential of requiring Applicant to take more gas into its system than it can sell, and from increasingly serious problems of declining markets, mounting take-or-pay exposure, and the imminent curtailment of Applicant's takes of casinghead gas. Applicant states that it has two sales customers, United Gas Pipe Line Company (United) and Southern Natural Gas Company (Southern). Applicant states that its sales to these customers have declined drastically over the past several years, from 238 Bcf in 1981 to 119 Bcf in 1985. Applicant states that during 1986, sales have continued to deteriorate at an even greater pace, with sales during the first five months of 1986 of only 35.7 Bcf. Applicant states that in late April 1986, United gave Applicant notice that it was ceasing its purchases altogether until further notice. Applicant states that although Southern has continued to purchase gas from Applicant at a level of 96,000 Mcf per day, Southern has recently notified Applicant that a reduction in purchase to approximately 50,000 Mcf per day will be implemented on August 1, 1986. Applicant states that the loss of sales on its system has caused substantial cuts in its takes from its producers and has led to the accumulation of significant take-or-pay exposure. According to Applicant, at the end of the first quarter of 1986, Applicant reported take-or-pay claims against it in excess of $150 million, or more than three times the value of Applant's equity. In contrast to Applicant's current market of 96,000 Mcf per day, which will be reduced to 50,000 Mcf per day on August 1, Applicant states that the total deliverability under contract to Applicant is in excess of 500,000 Mcf per day. Applicant states that under injunctions and court orders currently in effect, it is required to take a quantity up to 39,000 Mcf of gas-well gas per day from one producer and 15,000 Mcf of gas-well gas per day from another. In addition to these requirements, Applicant states it has casinghead production capacity connected to its system of approximately 47,000 Mcf per day. With the cuts in its sales on August 1, 1986, Applicant states it will be forced to curtail substantially its takes of casinghead gas, so long as the existing injunctions remain in effect. In addition, Applicant may soon be in a position where the amount of gas it is required to take by court orders is greater than the volume its system physically can accommodate. Accordingly, Applicant states that as it seek to allocate its limited market over conflicting producer demands, including potential requests for injunctions, it must be able to provide its producers a relief mechanism to move all categones of shut-in gas to alternate markets. Applicant further states that all of the gas connected to its system is NGPA section 104, 109 and 102(d) gas, which continues to be subject to the Commission's certificate and abandonment jurisdiction under the Natural Gas Act. Applicant states that it seeks the same authorization for its producer-suppliers that the Commission has granted in LTA proceedings. E.g., *Tenneco Oil Co.*, 33 F.E.R.C. ¶ 61,134 (1985), *extended sub nom. Columbia Gas Transmission Corp.*, 34 F.E.R.C. ¶ 61,407 and *Marathon Oil Co.*, 34 F.E.R.C. ¶ 61,417 (1986). Applicant states that because of the almost total loss of Applicant's market, which will necessitate further cuts in its takes from producers, including curtailment of casinghead gas, Applicant proposes to include gas from all NGPA pricing categones. Applicant states it is willing to submit quarterly reports on sales of released gas to the extent the Commission finds it in the public interest to do so. Applicant states that its proposed program will extend through March 31, 1987, and will be conditioned so that Applicant will be absolved of take-or-pay liability for released volumes sold by its producers to third parties.

Filing Code: A—Initial Service. B—Abandonment. C—Amendment to add acreage. D—Amendment to delete acreage. E—Total Succession. F—Partial Succession.

[FR Doc. 86-17495 Filed 8-1-86; 8:45 am]

BILLING CODE 6717-01-M

ENVIRONMENTAL PROTECTION AGENCY

[OPPE-FRL-3058-3]

Agency Information Collection Activities Under OMB Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: Section 3507(a)(2)(B) of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) requires the Agency to publish in the **Federal Register** a notice of proposed information collection requests (ICRs) that have been forwarded to the Office of Management and Budget (OMB) for review. The ICR describes the nature of the solicitation and the expected impact, and where appropriate includes the actual data collection instrument. The following ICRs are available for review and comment.

FOR FURTHER INFORMATION CONTACT: Nanette Liepman, (202) 382-2740 or FTS 382-2740.

SUPPLEMENTARY INFORMATION:

Office of Air and Radiation

Title: Non-compliance of Motor Vehicles with Federal Emission Standards (EPA ICR #0222). (This is a renewal of a currently approved ICR; its only change is the omission of the dealership survey, one of the four surveys in the original ICR.)

Abstract: Owners of passenger cars and light duty trucks supply information about their vehicles' maintenance and usage history. This information is used to determine whether motor vehicle manufacturers are meeting the current emissions standards of the Clean Air Act.

Respondents: Owners of passenger cars and light duty trucks.

Title: New Source Performance Standards, Subpart MM—Automobile and Light Duty Truck Surface Coating Operations (EPA ICR #1064). (This is an extension of a currently approved ICR; there are no changes.)

Abstract: Owners or operators of automobile and light-duty truck surface coating facilities must report initial performance tests, monthly non-compliance activity, and quarterly excess emissions. If incinerators are used, owners or operators must maintain records of incinerator temperatures and performance. The information is used to ensure continuous compliance with the standard.

Respondents: Owners and operators of automobile and light-duty truck surface coating facilities.

Office of Water

Title: Water Quality Standards Regulation (EPA ICR #0988). This is a renewal of an existing ICR; no changes are proposed.)

Abstract: The Clean Water Act requires States to review their water quality standards at least once every three years and revise them, as appropriate. States submit the results of reviews to EPA for determination of compliance with the Act.

Respondents: State water quality agencies.

Agency PRA Clearance Requests Completed by OMB

EPA ICR #0223, Declaration Form Completed at the Time of Importation of a Motor Vehicle or Engine, was approved 7/16/86 (OMB #2060-0085; expires 7/31/89).

EPA ICR #0226, Application for Permit to Discharge Wastewater, and Associated Regulations, was approved 7/14/86 (OMB #2040-0086; expires 7/31/88).

EPA ICR #0982, New Source Performance Standards (NSPS) for Metallic Mineral Processing Plants (Subpart LL), was approved 7/16/86 (OMB #2060-0016; expires 7/31/89).

Comments on all parts of this notice may be sent to:

Nanette Liepman, U.S. Environmental Protection Agency, Office of Standards and Regulations (PM-223), Information and Regulatory Systems Division, 401 M Street SW., Washington, DC 20460

and

Wayne Leiss (ICRs #0222 and #1064), or Rick Otis (ICR #0988), Office of Management and Budget, Office of Information and Regulatory Affairs, New Executive Office Building (Room 3228), 726 Jackson Place NW., Washington, DC 20503

Dated: July 28, 1986.

Daniel J. Fiorino,

Director, Information and Regulatory Systems Division.

[FR Doc. 86-17354 Filed 8-1-86; 8:45 am]

BILLING CODE 6560-50-M

FARM CREDIT ADMINISTRATION

[Farm Credit Administration Order No. 865]

Authority Delegations; Authorization of the Assistant to the General Counsel and Assistant to the Chairman to Authenticate Documents, Certify Official Records, and Affix Seal

AGENCY: Farm Credit Administration.

ACTION: Notice.

SUMMARY: The Chairman of the Farm Credit Administration issued Order No. 865 authorizing certain employees to authenticate documents, certify official records, and affix seal. The text of the Order is as follows:

1. Isla B. Marsden, Assistant to the Chairman and Loretta M. Gascon, Assistant to the General Counsel, individually, are authorized and empowered:

a. To execute and issue under the seal of the Farm Credit Administration, statements (1) authenticating copies of, or excerpts from, official records and files of the Farm Credit Administration; (2) certifying, on the basis of the records of the Farm Credit Administration, the effective periods of regulations, orders, instructions, and regulatory announcements; and (3) certifying, on the basis of the records of the Farm Credit Administration, the appointment, qualification, and continuance in office of any officer or employee of the Farm Credit Administration, or any conservator or receiver acting under the supervision or direction of the Farm Credit Administration.

b. To sign official documents and to affix the seal of the Farm Credit Administration thereon for the purpose of attesting the signature of officials of the Farm Credit Administration.

2. The provisions of this Order shall be effective, and on that date shall supersede Farm Credit Administration Order No. 859 dated October 2, 1985 (50 FR 40449, October 3, 1985).

Frank W. Naylor, Jr.,

Chairman, Farm Credit Administration Board.

[FR Doc. 86-17507 Filed 8-1-86; 8:45 am]

BILLING CODE 6705-01-M

FEDERAL DEPOSIT INSURANCE CORPORATION

Privacy Act of 1974; Proposed New System of Records

AGENCY: Federal Deposit Insurance Corporation.

ACTION: Notice of proposed system of records: "chain bank report."

SUMMARY: In accordance with the Privacy Act of 1974 (5 U.S.C. 552a), the Federal Deposit Insurance Corporation ("FDIC") gives notice of the establishment of a new system of records entitled "Chain Bank Report."

DATE: Comments on the establishment of the system must be submitted by September 3, 1986. The system will become effective on October 8, 1986, unless superseding notice to the contrary is published before that date.

ADDRESSES: Comments should be addressed to Hoyle L. Robinson, Executive Secretary, FDIC, 550 17th Street, NW., Washington, DC 20429, or hand-delivered to the same address between 9:00 a.m. and 5:00 p.m., Monday—Friday, Comments are available for public inspection.

FOR FURTHER INFORMATION CONTACT: Margaret M. Olsen, Deputy Executive Secretary, FDIC, 550 17th Street, NW., Washington, DC 20429, telephone (202) 898–3812.

SUPPLEMENTARY INFORMATION: The FDIC is establishing a new system of records, the Chain Bank Report, as part of its supervision of insured banks. The system consolidates existing information relating to insured banks which are owned or controlled by one or more individuals (called "chain banks"). The consolidation of information into a system of records will permit identification of institutions subject to common ownership or control, coordination of Federal and State supervisory activities, and evaluation of the overall condition of the organization.

The system of records basically is information in word processing or microprocessing systems. The information in the system will relate to the individual's percentage of ownership or control of insured banks and to the insured bank, including its name, location, and date of last examination. Information will derive from examination reports, change in bank control filings and other public reports, and may include a brief comment section. Information in the system will be available to the individual.

Accordingly, the Board of Directors proposes the establishment of the following system of records:

FDIC 30–64–0008

SYSTEM NAME:

Chain Bank Report.

SYSTEM LOCATION:

Division of Bank Supervision, FDIC, 550 17th Street, NW., Washington, DC. 20429, and FDIC regional offices. (See Appendix A for the location of FDIC regional offices.)

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Individuals who directly, indirectly, or in concert with others, own or control a chain banking organization (two or more financial institutions).

ATEGORIES OF RECORDS IN THE SYSTEM:

Contains names of individuals, information relating to the person's ownership or control of banks or other financal institutions and information relating to the bank or financial institution, such as name, location, charter type, and date of last examination.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

12 U.S.C. 1817(j), 1819 and 1820(b).

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

Information in the sytem may be disclosed;

(1) To other financial institution supervisory authorities for: (a) Coordination of examining resources when the chain banking organization is composed of banks of financial institutions subject to multiple supervisory juirisdiction; (b) coordination of evaluations and analysis of the condition of the consolidated chain organization; and (c) coordination of supervisory, corrective or enforcement actions.

(2) To the appropriate Federal, State or local agency or authority responsible for investigating or prosecuting a violation of or for enforcing or implementing a statute, rule regulation or order, when the information indicates a violation or potential violation of law, whether civil, criminal or regulatory in nature, and whether arising by general statute or particular program statute or by regulation, rule or order issued pursuant thereto.

(3) To a court, magistrate, or administrative tribunal in the course of presenting evidence, including disclosures to opposing counsel or witnesses in the course of civil discovery, litigation, or settlement negotiations or in connection with criminal law proceedings.

(4) To a Congressional office in response to an inquiry made at the request of the individual to whom the record pertains.

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

STORAGE:

Information is maintained in word processing or microprocessing programs or hard copy printouts stored in file cabinets.

RETRIEVABILITY:

Indexed by name of controlling individual(s).

SAFEGUARDS:

Information in word processing or microprocessing programs is accessed only by authorized personnel; hard copy printouts will be stored in lockable file cabinets or offices.

RETENTION AND DISPOSAL:

Records are generally maintained in eletronic storage disks in an on-line capacity until needed. Certain records are archived in off-line storage. All records, including those in printout form, are periodically updated to reflect changes and maintained as long as needed.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Division of Bank Supervision, FDIC, 550 17th Street, NW., Washington, DC 20429, and for the regional office, the regional director (see Appendix A).

NOTIFICATION PROCEDURE:

Requests must be in writing and addressed to the Office of the Executive Secretary, FDIC, 550 17th Street, NW., Washington, DC 20429. The request must contain (1) the requestor's name and address and (2) the name and location of the controlled banks.

RECORD ACCESS PROCEDURES:

Same as "Notification" above.

CONTESTING RECORD PROCEDURES:

Same as "Notification" above.

RECORD SOURCE CATEGORIES:

Examination reports and related materials; regulatory filings; and Change in Bank Control Notices filed pursuant to 12 U.S.C. 1817(j).

SYSTEMS EXEMPTED FROM CERTAIN PROVISIONS OF THE ACT:

None.

By direction of the Board of Directors.

Dated at Washington, DC, this 22nd day of July 1986.

Margaret M. Olsen,

Acting Executive Secretary.

[FR Doc. 86–17475 Filed 8–1–86; 8:45 am]

BILLING CODE 6714–01–M

FEDERAL RESERVE SYSTEM

American Security Corp., et al.; Applications To Engage de Novo in Permissible Nonbanking Activities

The companies listed in this notice have filed an application under § 225.23(a)(1) of the Board's Regulation Y (12 CFR 225.23(a)(1)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to commence or to engage *de novo*, either directly or through a subsidiary, in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies. Unless outherwise noted, such activities will be conducted throughout the United States.

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Unless otherwise noted, comments regarding the applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than August 22, 1986.

A. Federal Reserve Bank of Richmond (Lloyd W. Bostian, Jr., Vice President) 701 East Byrd Street, Richmond, Virginia 23261:

1. *American Security Corporation*, Washington, DC; to engage *de novo* through its subsidiary American Security Investment Services, Inc., Washington, DC, in securities brokerage activities pursuant to § 225.25(b)(15) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, July 29, 1986.

James McAfee,

Associate Secretary of the Board.

[Fr Doc. 86-17426 Filed 8-1-86; 8:45 am]

BILLING CODE 6210-01-M

First Florida Banks, Inc.; Correction

This notice corrects a previous **Federal Register** document (FR Doc. No. 86-16720, published at page 26751 of the issue for Friday, July 25, 1986.

A. Federal Reserve Bank of Atlanta (Robert E. Heck, vice President) 104 Marietta Street NW., Atlanta, Georgia 30303:

1. *First Florida Banks, Inc.*, and 7L Corporation, both of Tampa, Florida; to acquire 100 percent of the voting shares of First Florida Bank of Pasco County, N.A., Bayonet Point, Florida, a *de novo* bank.

Comments on this application must be received by August 15, 1986.

Board of Governors of the Federal Reserve System, July 29, 1986.

James McAfee,

Associate Secretary of the Board.

[FR Doc. 86-17425 Filed 8-1-86; 8:45 am]

BILLING CODE 6210-01-M

Mellon Bank, N.A.; Corporation To Do Business Under Section 25(a) of the Federal Reserve Act

An application has been submitted for the Board's approval of the organization of a corporation to do business under section 25(a) of the Federal Reserve Act ("Edge Corporation"), the Edge Corporation would operate as a subsidiary of the applicant. The factors that are to be considered in acting on the application are set forth in § 211.4(a) of the Board's Regulation K (12 CFR 211.4(a)).

The application may be inspected at the offices of the Board of Governors or at the Federal Reserve Bank listed for that notice. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identify specifically any questions of fact that are in dispute, and summarize the evidence that would be presented at a hearing. Any person wishing to comment on the application should submit views in writing to be received not later than August 15, 1986.

A. Board of Governors of the Federal Reserve System (William W. Wiles, Secretary) Washington, DC 20551:

1. *Mellon Bank, N.A.*, Pittsburgh, Pennsylvania; to establish a corporation to be known as Mellon Overseas Investment Corporation, Wilmington, Delaware. This application may be inspected at the Federal Reserve Bank of Cleveland.

Board of Governors of the Federal Reserve System, July 29, 1986.

James McAfee,

Associate Secretary of the Board.

[FR Doc. 86-17427 Filed 8-1-86; 8:15 am]

BILLING CODE 6210-01-M

United Jersey Banks; Formation of, Acquisition by, or Merger of Bank Holding Companies; and Acquisition of Nonbanking Company

The company listed in this notice has applied under § 225.14 of the Board's Regulation Y (12 CFR 225.14) for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) to become a bank holding company or to acquire voting securities of a bank or bank holding company. The listed company has also applied under § 225.23(a)(2) of Regulation Y (12 CFR 225.23(a)(2)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to acquire or control voting securities or assets of a company engaged in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies, or to engage in such an activity. Unless otherwise noted, these activities will be conducted throughout the United States.

The application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party

commenting would be aggrieved by approval of the proposal.

Comments regarding the application must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than August 25, 1986.

A. **Federal Reserve Bank of New York** (William L. Rutledge, Vice President) 33 Liberty Street, New York, New York 10045:

1. *United Jersey Banks*, Princeton, New Jersey; to merge with Commercial Bancshares, Inc., Jersey City, New Jersey, thereby indirectly acquire Commercial Trust Company of New Jersey, Jersey City, New Jersey, Fidelity Bank & Trust Company of New Jersey, Pennsauken, New Jersey, The Wood Ridge National Bank, Wood-Ridge, New Jersey, Lenape State Bank, West Deptford, New Jersey, The Edgewater National Bank, Englewood Cliffs, New Jersey, and First Bank of Colonia, Colonia, New Jersey.

Applicant has also applied to acquire Trico Mortgage Company, Inc., Woodbridge, New Jersey and N.A. Home Investors Mortgage Corporation, Hackensack, New Jersey, and thereby engage in all aspects of mortgage lending, including origination, purchase, sale and servicing of mortgage loans pursuant to section 12 CFR 225.25(b)(1) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, July 29, 1986.

James McAfee,

Associate Secretary of the Board.

[FR Doc. 86-17428 Filed 8-1-86; 8:45 am]

BILLING CODE 6210-01-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of Human Development Services

Intent to Reallot Basic Support and Protection and Advocacy Funds to States for Developmental Disabilities Expenditures

AGENCY: Administration on Developmental Disabilities, Office of Human Development Services, HHS.

ACTION: Notice of intent to reallot funds.

SUMMARY: The Administration of Developmental Disabilities herein gives notice of intent to reallot funds which will not be obligated or expended by States or Territories by September 30, 1986. This notice is given in accordance with section 125(d) of the Developmental Disabilities Act of 1984, Pub. L. 98-527. To be considered for receipt of additional funds under this reallotment, each State or Territory must provide the following information in writing:

(1) The amount of funds that will not be obligated or expended by September 30, 1986, under its approved State Plan. If all funds will be so used, provide a statement to that effect;

(2) The amount of additional funds that can be obligated or expended by September 30, 1986, if any; or

(3) A statement that no additional funds can be used by that date.

This information will be used to calculate the amounts to be reallotted. It should be submitted no later than September 3, 1986 to: Bettye J. Mobley, Grants and Contracts Management Division, Office of Human Development Services, Department of Health and Human Services, 200 Independence Avenue, SW., Room 341F.4 HHH Bldg., Washington, DC 20201.

A State or Territory which does not provide the written notice as described above will not receive a reallocation of additional funds for Fiscal Year 1986.

FOR FURTHER INFORMATION CONTACT: Bettye J. Mobley, (202) 245-7220.

(Catalog of Federal Domestic Assistance Program No. 13-630 Developmental Disabilities-Basic Support and Advocacy Grants)

Dated: July 27, 1986.

Casimer R. Wichlacz,

Acting Commissioner, Administration on Developmental Disabilities.

Approved: July 28, 1986.

Jean K. Elder,

Acting Assistant Secretary for Human Development Services.

[FR Doc. 86-17472 Filed 8-1-86; 8:45 am]

BILLING CODE 4130-01-M

Public Health Service

National Center for Health Services Research and Health Care Technology Assessment; Cardiac Catheterization When Performed in Any Freestanding Setting, Including an Ambulatory Surgical Center (ASC)

The Public Health Service (PHS) through the Office of Health Technology Assessment (OHTA) announces that it is coordinating an assessment of what is known of the safety and effectiveness of, and indications for ambulatory cardiac catheterization when performed in any freestanding setting, including an ambulatory surgical center (ASC). Cardiac catheterization is a procedure in which a small plastic tube is inserted through the skin of the arm or leg into an artery or vein. The tip of the catheter is positioned in or near the heart so that studies may be performed on the heart's chambers and/or x-ray pictures of the arteries may be obtained revealing any dangerous or potentially dangerous narrowing of the vessels.

Cardiac catheterization has been performed as a hospital inpatient procedure for years. More recently, the study has been undertaken on hospital outpatients. This assessment seeks to determine whether cardiac catheterization can be undertaken safely and effectively in a freestanding facility including an ASC. Specific questions to be answered by this assessment include: (1) Is cardiac catheterization safe when performed in a freestanding setting or an ASC? (2) Are complications and rates of complications the same for ambulatory cardiac catheterization when performed in ASCs as for catheterization performed in hospitals? (3) Do complications associated with cardiac catheterization pose an unacceptable risk to patients when the procedure is performed in a freestanding setting or ASC? (4) When performed in a freestanding setting or ASC, is cardiac catheterization any less safe or effective than when performed in a hospital inpatient or outpatient setting? (5) Is there any situation or patient population where ambulatory cardiac catheterization in a freestanding setting or ASC is appropriate or preferable to a hospital setting? This assessment also seeks to determine what is known about the cost of cardiac catheterization when performed in this setting.

PHS assessments consist of a synthesis of information obtained from appropriate organizations in the private sector as well as from PHS agencies and other departments and agencies throughout the Federal Government. The assessments are based on the most current knowledge concerning the safety and effectiveness of a technology. Based on this assessment, a PHS recommendation will be formulated to assist the Health Care Financing Administration (HCFA) in establishing Medicare coverage policy.

The information being sought is a review and assessment of past, current and planned research related to this technology, a bibliography of published controlled clinical trials and other well designed clinical studies. Information related to the characterization of the patient population most likely to benefit, as well as on clinical acceptability and the effectiveness of this technology when used in these settings is being sought. Proprietary information is not being sought. Any person or group wishing to provide OHTA with information relevant to this assessment

should do so in writing no later than October 30, 1986.

Written material should be submitted to: Morgan Jackson, M.D., M.P.H., National Center for Health Services Research and Health Care Technology Assessment, Park Building, Room 3–10, 5600 Fishers Lane, Rockville, MD 20857, (301) 443–4990.

Dated: July 21, 1986.

Morgan N. Jackson,

Acting Director, Office of Health Technology Assessment, National Center for Health Services Research and Health Care Technology Assessment.

[FR Doc. 86–17473 Filed 8–1–86; 8:45 am]

BILLING CODE 4160–17–M

National Center for Health Services Research and Health Care Technology Assessment; Chemical Aversion Therapy in the Treatment of Alcoholism

This is to amend the previous notice of June 19, 1986, (FR 51 (118): 22356), announcing an assessment of chemical aversion therapy in the treatment of alcoholism, to reflect the fact that this assessment is being performed at the request of both the Office of Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS) and the Health Care Financing Administrtion (HCFA). Information generated by this assessment will result in recommendations to both OCHAMPUS and HCFA as to whether or not these techniques should be covered under OCHAMPUS or Medicare. Any person or group wishing to provide OHTA with information relevant to this assessment should do so in writing no later than October 30, 1986.

Written material should be submitted to: Morgan N. Jackson, M.D., M.P.H., Office of Health Technology Assessment, NCHSR&HCTA, Park Building, Room 3–10, 5600 Fishers Lane, Rockville, MD 20857, (301) 443–4990.

Dated: July 23, 1986.

Morgan N. Jackson,

Acting Director, Office of Health Technology Assessment, National Center for Health Services Research and Health Care Technology Assessment.

[FR Doc. 86–17474 Filed 8–1–86; 8:45 am]

BILLING CODE 4160–17–M

Health Resources and Services Administration; Statement of Organization, Functions and Delegations of Authority

Part H, Chapter HB (Health Resources and Services Administration) of the Statement of Organization, Functions and Delegations of Authority of the Department of Health and Human Services (47 FR 38409–24, August 31, 1982, as amended most recently at 51 FR 21629, June 13, 1986), is amended to reflect the transfer of the PHS hospital and clinic records function within the Bureau of Health Care Delivery and Assistance.

Under HB–10, Organization and Functions amend the functional statements for the *Bureau of Health Care Delivery and Assistance (HBC)* as follows:

(1) Under *Division of National Hansen's Disease Programs (HBC8)* delete the word "and" before item number (6), change the period after item number (6) to a semicolon, and add the following:

"and (7) responds to requests for information or copies of the PHS hospital and clinic medical records."

(2) Under *Division of Federal Occupational and Beneficiary Health Services (HBCA)* delete item number (19), change the semicolon after item number (18) to a period, and insert the word "and" after item number (17).

This transfer is effective on October 31, 1986.

Dated: July 22, 1986.

Wilford J. Forbush,

Director, Office of Management, PHS.

[FR Doc. 86–17477 Filed 8–1–86; 8:45 am]

BILLING CODE 4160–15–M

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. N–86–1625]

Submission of Proposed Information Collections to OMB

AGENCY: Office of Administration, HUD.

ACTION: Notices.

SUMMARY: The proposed information collection requirements described below have been submitted to the Office of Management and Budget (OMB) for review, as required by the Paperwork Reduction Act. The Department is soliciting public comments on the subject proposals.

ACTION: Interested persons are invited to submit comments regarding these proposals. Comments should refer to the proposal by name and should be sent to: Robert Fishman, OMB Desk Officer, Office of Management and Budget, New Executive Office Building, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Davide S. Cristy, Reports Management Officer Department for Housing and Urban Development, 451 7th Street, SW., Washington, DC 20410, telephone (202) 755–6050. This is not a toll-free number.

SUPPLEMENTARY INFORMATION: The Department has submitted the proposals described below for the collection of information to OMB for review, as required by the Paperwork Reduction Act (44 U.S.C. Chapter 35).

The Notices list the following information: (1) The title of the information collection proposal; (2) the office of the agency to collect the information; (3) the agency form number, if applicable; (4) how frequently information submissions will be required; (5) what members of the public will be affected by the proposal; (6) an estimate of the total number of hours needed to prepare the information submission; (7) whether the proposal is new or an extension or reinstatement of an information collection requirement; and (8) the names and telephone numbers of an agency official familiar with the proposal and of the OMB Desk Officer for the Department.

Copies of the proposed forms and other available documents submitted to OMB may be obtained from David S. Cristy, Reports Management Officer for the Department. His address and telephone number are listed above. Comments regarding the proposals should be sent to the OMB Desk Officer at the address listed above.

The proposed information collection requirements are described as follows:

Notice of Submission of Proposed Information Collection to OMB

Proposal: Requisition for Funds-Advance Loans.
Office: Public and Indian Housing.
Form No.: HUD–5402.
Frequency of Submission: On Occasion.
Affected Public: Businesses or Other For-Profit.
Estimated Burden Hours: 9,000.
Status: Extension.
Contact: George C. Davis, HUD, (202) 755–7920; Robert Fishman, OMB, (202) 395–6880

Authority: Sec. 3507 of the Paperwork Reduction Act, 44 U.S.C. 3507; Sec. 7(d) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

Dated: June 23, 1986.

Proposal: Tenancy and Administrative Grievance Procedure, 24 CFR Part 966
Office: Public and Indian Housing
Form No.: None
Frequency of Submission: Single-Time
Affected Public: Individuals or Households and State or Local Governments
Estimated Burden Hours: 26,000
Status: New

Contact: Joyce Anne Bassett, HUD, (202) 426–0744; Robert Fishman, OMB, (202) 395–6880

Authority: Sec. 3507 of the Paperwork Reduction Act, 44 U.S.C. 3507; Sec. 7(d) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

Dated: July 21, 1986.

Proposal: Requirement for Repurchase Agreements for Public Housing Agencies (PHAs) and Indian Housing Authorities (IHAs)
Office: Public and Indian Housing
Form No.: None
Frequency of Submission: On Occasion
Affected Public: State or Local Governments
Estimated Burden Hours: 60
Status: New
Contract: Stephanie Avery-Boyd, (202) 755–6444; Robert Fishman, OMB, (202) 395–6880

Authority: Sec. 3507 of the Paperwork Reduction Act, 44 U.S.C. 3507; Sec. 7(d) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

Dated: July 21, 1986.

Proposal: Tenancy and Administrative Grievance Hearing, 24 CFR Part 966
Office: Public and Indian Housing
Form No.: None
Frequency of Submission: On Occasion
Affected Public: Individuals or Households and State or Local Governments
Estimated Burden Hours: 14,600
Status: New
Contract: Joyce Anne Bassett, HUD, (202) 426–0744; Robert Fishman, OMB, (202) 395–6880

Authority: Sec. 3507 of the Paperwork Reduction Act, 44 U.S.C. 3507; Sec. 7(d) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

Dated: July 21, 1986.

Donald J. Keuch, Jr.,

Deputy Assistant Secretary.

[FR Doc. 86–17423 Filed 8–1–86; 8:45 am]

BILLING CODE 4210–01–M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[OR 36826; (OR–090–06–4212–13: GP6–302)]

Realty Action—Exchange; Oregon

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of realty action—exchange of public lands in Lane County, Oregon.

SUMMARY: The following described public land has been examined and determined to be suitable for transfer out of Federal ownership by exchange under Section 206 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1716):

Willamette Meridian, Oregon

T. 19 S., R. 1 E.,
Sec. 18: Unnumbered Lot in NE¼NW¼.
T. 20 S., R. 1 W.,
Sec. 6: Lot 18.
T. 18 S., R. 11 W.,
Sec. 7: NE¼NW¼.
Containing 116.46 acres.

In exchange for these lands, the United States will acquire the following described municipal lands from the Eugene Water and Electric Board:

Willamette Meridian, Oregon

T. 16 S., R. 3 E.,
Sec. 32: Lots 13, 14 less Metes & Bounds.
T. 17 S., R. 3 E.,
Sec. 5: Lots 2, 3, SW¼NE¼ less Metes & Bounds.
Containing 159.14 acres, more or less.

The purpose of the exchange is to improve the resource management program of the Bureau of Land Management and the property management program of the Board. The public lands to be exchanged are relatively isolated parcels. The Board intends to sell these lands to generate revenue. The Board lands have important recreational, timber, visual and wildlife habitat values that merit retention in public ownership. These lands will be managed for multiple use along with the adjoining public lands. The public interest will be well served by making this exchange.

The value of the lands to be exchanged is approximately equal, and the acreage will be adjusted to bring the values as close as possible upon completion of the final appraisal of the lands. Full equalization of values will be achieved by payment to the United States of funds in an amount not to exceed 25 percent of the total value of the public land to be transferred. All mineral rights will be transferred with the surface except for oil and gas rights on the NE¼NW¼ Section 7, T. 18 S., R. 11 W., W.M., which will be reserved by the United States.

The exchange will be subject to:

1. All valid existing rights, including any right-of-way, easement, permit or lease of record.

2. A reservation of the United States of a right-of-way for ditches and canals constructed by authority of the United States under the Act of August 30, 1890 (43 U.S.C. 945).

Publication of this notice in the **Federal Register** segregates the public land, described above, from appropriation under the public land laws, including the mining laws, but not from exchange pursuant to Section 206 of the Federal Land Policy and Management Act of 1976. The segregative effect of this notice will terminate upon issuance of patent or in two years, whichever occurs first.

DATE: For a period of 45 days from the date of publication of this notice in the **Federal Register**, interested parties may submit comments to the Eugene District Manager at the address shown below. Any objections will be reviewed by the Oregon State Director, Bureau of Land Management, who may sustain, vacate, or modify this realty action. In the absence of any objections, this realty action will become the final determination of the Department of the Interior.

ADDRESSES: Detailed information concerning this exchange, including the environmental assessment, is available for review at the Eugene District Office, P.O. Box 10226 (1255 Pearl Street), Eugene, Oregon 97440.

FOR FURTHER INFORMATION CONTACT: Ronald Wold, Eugene District Office, at (503) 687–6895.

Date of Issue: July 28, 1986.

Melvin D. Clausen,

District Manager.

[FR Doc. 86–17445 Filed 8–1–86; 8:45 am]

BILLING CODE 4310–33–M

Fish and Wildlife Service

Issuance of Permits for Marine Mammals

On June 18, 1986, a notice was published in the **Federal Register** (Vol. 51, No. 117) that an application had been filed with the Fish and Wildlife Service by Dr. Donald Siniff (PRT–678319) for a permit to tag 960 Alaskan sea otters, 160 of which would be surgically implanted with radio transmitters and tracked.

Notice is hereby given that on July 21, 1986, as authorized by the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361–1407), the Fish and Wildlife Service issued the requested permit subject to certain conditions set forth therein.

On April 3, 1986, a notice was published in the **Federal Register** (Vol. 51, No. 64) that an application has been filed with the Fish and Wildlife Service by Hubbs Marine Research Institute (PRT–705521) for a permit to take (harass) 165 Alaskan sea otters to develop capture & herding techniques. On June 17, 1986, a permit was issued to authorize take of 75 otters, excluding mother/pup pairs.

Notice is hereby given that on July 14, 1986, as authorized by the provisions of the Marine Mammal Protection Act 1972 (16 U.S.C. 1361–1407), the Fish and Wildlife Service issued an amendment to the permit, subject to certain conditions set forth therein, authorizing inclusion of 5 mother/pup pairs in the 75 otters authorized, as requested in the permittee's original application.

The permits are available for public inspection during normal business hours at the Fish and Wildlife Service's Office in Room 605, 1000 North Glebe Road, Arlington, Virginia 22201.

Dated: July 30, 1986.

Earl B. Baysinger,

Chief, Federal Wildlife Permit Office.

[FR Doc. 86–17461 Filed 8–1–86; 8:45 am]

BILLING CODE 4310–55–M

Receipt of Application for Permit

The public is invited to comment on the following applications for permits to conduct certain activities with marine mammals. The applications were submitted to satisfy requirements of the Marine Mammal Protection Act of 1972, *as amended* (16 U.S.C. 1361 *et seq.*, the Endangered Species Act of 1973, *as amended* (16 U.S.C. 1531, *et seq.*) and the regulations governing marine mammals and endangered species (50 CFR Parts 17 and 18).

Applicant

PRT–710248

Name: Nagasaki Aquarium, Shukumachi 3, Nagasaki, Japan

Type of Permit: Public Display

Name of Animals: Alaskan sea otter (*Enhydra lutris lutris*-3-

Summary of Activity to be Authorized: The applicant proposes to take (capture) these animals and export them to Nagasaki Aquarium for public display.

Source of Marine Mammals for Display: Prince William Sound, Green Island, or as designated by Alaska Department of Fish & Game.

Period of Activity: September 1, 1986 to December 31, 1986.

Applicant

PRT–672624

Name: Bob Brownell, U.S. Fish & Wildlife Service, San Simeon, CA

Type of Permit: Scientific Research

Name and Number of Animals: 450 California sea otters (*Enhydra lutris nereis*)

Summary of Activity to be Authorized: The applicant amends his original application published June 18, 1986 (FR Vol. 51, No. 117) to tag 240 sea otters, by requesting authorization to inject transponders under the skin of, not only the animals he has requested to tag, but also other California sea otters captured under other research permits and rehabilitated otters released back to the wild. The transponder is approximately the size of a pencil lead, is injected with a syringe (sedation not necessary), is read with a scanner, and provides a permanent means of identifying the animal.

Source of Marine Mammals: Off the coast of California

Period of Activity: 3 years.

Applicant

PRT–709567

Name: Vancouver Public Aquarium, P.O. Box 3232, Vancouver, BC Canada

Type of Permit: Public Display

Name and Number of Animals: 2 Alaskan sea otters (*Enhydra lutris lutris*)

Summary of Activity to be Authorized: The applicant proposes to take these animals for the purpose of public display and captive propagation.

Source of Marine Mammals for Public Display: Prince William Sound near Cordova, Alaska, or as designated by Alaska Department of Fish and Game.

Period of Activity: September 1 through December 31, 1986.

Concurrent with the publication of this notice in the **Federal Register**, the Federal Wildlife Permit Office is forwarding copies of this application to the Marine Mammal Commission and the Committee of Scientific Advisors for their review.

Written data or comments, requests for copies of the complete applications, or requests for a public hearing on these applications should be submitted to the Director, U.S. Fish and Wildlife Service (FWPO), 1000 North Glebe Road, Room 611, Arlington, Virginia 22201, within 30 days of the publication of this notice. Anyone requesting a hearing should give specific reasons why a hearing would be appropriate. The holding of such hearing is at the discretion of the Director.

Documents submitted in connections with the above applications are available for review during normal business hours (7:45 am to 4:15 pm) in Room 601 N. Glebe Road, Arlington, Virginia.

Dated: July 30, 1986.

Earl B. Baysinger,

Chief, Federal Wildlife Permit Office.

[FR Doc. 86–17462 Filed 8–1–86; 8:45 am]

BILLING CODE 4310–55–M

INTERSTATE COMMERCE COMMISSION

[Finance Docket No. 29720 (Sub-No. 1)]

Guilford Transportation Industries, Inc., et al; Control

AGENCY: Interstate Commerce Commission.

ACTION: Date for filing comments or evidence.

SUMMARY: A trackage rights application was filed in these proceedings on June 27, 1986 by the Canadian National Railway Company (CN). The application, entitled Finance Docket No. 29720 (Sub-No. 2) Canadian National Railway Company—Trackage Rights In Maine, seeks rights over a main line of Maine Central Railroad Company (MEC) between Danville Junction and Bangor, ME and over tributary branch lines of MEC between Rumford and Leeds Junction, ME, Oakland and Madison, ME, Fairfield and Shawmut, ME and Bangor and Bucksport, ME. The trackage rights would be utilized by the CN in connection with its own lines between Danville Junction and westerly points such as Chicago, IL.

DATES: Persons not already parties of record in the lead proceeding, Finance Docket No. 29720 (Sub-No. 1), may file comments or evidence in opposition to the described trackage rights application of CN in the Sub-No. 2 proceeding with the Commission on or before September 3, 1986.

ADDRESS: An original and six copies of the comments or evidence must be filed with: Case Control Branch, Room 1324, Interstate Commerce Commission, Washington, DC 20423.

FOR FURTHER INFORMATION CONTACT: Paul S. Cross, Administrative Law Judge, Interstate Commerce Commission, Washington, DC 20423, (202) 275–7474.

SUPPLEMENTAL INFORMATION: The comments or evidence of a "new" party also must be served upon CN and other existing "active" parties of record. Upon request, CN must provide any new party who desires to participate in this matter with a copy of the trackage rights application and with a listing of active parties.

CN's representative is: Hamel & Park, 888 Sixteenth Street, NW., Washington, DC 20006, (202) 835–8095.

New parties desiring to submit evidence (as opposed to comments) shall do so in the form of verified written statements, and shall specifically indicate whether they wish to participate as an active party of record. Any necessary cross-examination of witnesses submitting verified statements will take place during an oral hearing session in middle September. Specific notice of the date and place of hearing will be given.

Decided July 29, 1986.

By the Commission, Paul S. Cross, Administrative Law Judge.

Noreta R. McGee,

Secretary.

[FR Doc. 86-17480 Filed 8-1-86; 8:45 am]

BILLING CODE 7035-01-M

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

Methylenedianiline Mediated Rulemaking Advisory Committee

AGENCY: Occupational Safety and Health Administration, Labor.

ACTION: Notice of meetings and agendas.

SUMMARY: Under the provisions of the Federal Advisory Committee Act (Pub. 92-463, as amended), notice is hereby given of the schedule of six Committee meetings to be held from August 1986 through January 1987. Notice is also given of the tentative topics of discussions. It is anticipated that the meetings will last from one to three days but this may vary as the work of the Committee proceeds. For the purpose of this notice only the beginning dates will be given. Locations of the meetings are also provided in the notice. Information on room numbers will be available in the lobbies of the designated buildings.

DATES: The meetings are scheduled to begin on:

August 5, 1986 at 9:30 a.m. at the Hyatt Regency Washington, 400 New Jersey Avenue NW., Washington, DC 20001, (202) 737-1234;

September 9, 1986 at 9:30 a.m. at the Little American Hotel, 500 South Main Street, Salt Lake City, Utah 84101, (801) 363-6781;

October 7, 1986 at 9:30 a.m. in the Frances Perkins Department of Labor Building, 200 Constitution Avenue NW., Washington, DC 20210;

November 18, 1986 at 9:30 a.m. in the Department of Labor Building indicated above;

December 9, 1986, at 9:30 a.m. at the Phoenix Park Hotel, 520 North Capitol Street NW., Washington DC 20001, (202) 638-6900; and

January 13, 1987 at 9:30 a.m. in the Department of Labor Building indicated above.

Status: These meetings will be open to the public.

ADDRESS: Submissions presented in response to this notice should be sent in quadruplicate to the Docket Officer, Docket No. H-040, Room N3670, Occupational Safety and Health Administration, 200 Constitution Avenue NW., Washington, DC 20210; (202) 523-7894. Written comments received, as well as other information in Docket H-040, will be available for inspection and copying at this address, Monday through Friday, 8:15 a.m. to 4:45 p.m.

FOR FURTHER INFORMATION CONTACT: Mr. Tom Hall, Division of Consumer Affairs, Occupational Safety and Health Administration, U.S. Department of Labor, Room N-3637, 200 Constitution Avenue NW., Washington, DC 20210; Telephone (202) 523-8615.

SUPPLEMENTARY INFORMATION: On October 22, 1985, OSHA announced its intent to make use of mediated rulemaking in developing a proposed standard for MDA (50 FR 42790-42793). The notice also set forth the basic concepts of mediated rulemaking and outlined the participant selection criteria which OSHA expected to use in establishing an MDA Mediated Rulemaking Committee.

OSHA established the committee in accordance with the Federal Advisory Committee Act (FACA) and section 7(b) of the Occupational Safety and Health Act (OSH Act) to mediate issues associated with the development of a Notice of Proposed Rulemaking on MDA.

Appointees to the committee include representatives from labor, industry, health and safety groups, and government agencies.

Members of the public wishing to submit written statements to the Committee that are germane to the agenda may do so. Such statements should be in reproducible form and should be submitted to the OSHA Division of Consumer Affairs at least 5 days before the meeting. In addition, the Mediator or Chairman of the Committee has the authority to decide to what extent oral presentations by members of the public may be permitted at the meeting.

At the first meeting held in Washington on July 22-23, 1986, the topics and the order of their discussion were established. For the purpose of 29 CFR 1912.28 these constitute the Agendas for the meetings and are as follows:

August 5, 1986: Scope and Application, Definitions, Recordkeeping, Emergencies, Hygiene Facilities and Housekeeping;

September 9, 1986: Personal Protective Equipment, Exposure Monitoring, and site visit;

October 7, 1986: Health Effects, Risk Assessment, Medical Surveillance, Medical Appendices, Biological Monitoring, and Removal and Rate Retention;

November 18, 1986: Technological and Economic Feasibility;

December 9, 1986: Permissible Exposure Limits, Including Short Term Exposure Limits and Action Level Discussions; and

January 13, 1987: Review of Committee Recommendations for Federal Register Publication.

Minutes of these meetings will be available for public inspection at the OSHA Docket Office, U.S. Department of Labor, Rm. N-3670, 200 Constitution Ave. NW., Washington, DC 20210; Telephone (202) 523-7894.

Signed in Washington, DC this 30 day of July 1986.

John A. Pendergrass,

Assistant Secretary of Labor.

[FR Doc. 86-17532 Filed 7-31-86; 11:44 am]

BILLING CODE 4510-26-M

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards; Meeting

In accordance with the purposes of sections 29 and 182b. of the Atomic Energy Act (42 U.S.C. 2039, 2232b), the Advisory Committee on Reactor Safeguards will hold a meeting on August 7-9, 1986, in Room 1046, 1717 H Street NW., Washington, DC. Notice of this meeting was published in the Federal Register on July 24, 1986.

Thursday, August 7, 1986

8:30 A.M.—8:45 A.M.: Report of ACRS Chairman (Open)—The ACRS Chairman will report briefly regarding items of current interest to the Committee.

8:45 A.M.—10:45 A.M.: Standardized Nuclear Plants (Open)—The members of the Committee will discuss proposed ACRS comments and recommendations to the NRC regarding a proposed policy statement by the Nuclear Regulatory Commission on standardized nuclear plants. Members of the NRC Staff will participate as appropriate.

11:00 A.M.—1:00 P.M.: Improved Light Water Reactors (Open)—The members will discuss proposed Committee comments and recommendations to the NRC regarding proposed characteristics for improved light water reactors.

2:00 P.M.—3:00 P.M.: Seismic Qualification of Equipment (Open/Closed)—The members will hear presentations as appropriate and will discuss proposed ACRS comments and recommendations regarding the proposed program to seismically qualify safety-related equipment in operating nuclear plants. Representatives of the

NRC Staff will take part in this session as appropriate.

Portions of this session will be closed as necessary to discuss Proprietary Information applicable to this matter.

3:00 P.M.—4:00 P.M.: NRC Regulatory Process (Open)—The members will discuss proposed ACRS comments and recommendations to the NRC regarding reevaluation of the nuclear regulatory process.

4:14 P.M.—6:30 P.M.: Long Range Planning (Open)—The members will hear and discuss the report of its subcommittee on a proposed guide for the preparation of a long range plan for NRC activities.

Friday, August 8, 1986

8:30 A.M.—9:30 A.M.: Activities of the NRC Office of Nuclear Material Safety and Safeguards (Open/Closed)—The members will hear a briefing by the Director, NMSS, regarding NMSS activities of mutual interest, including safeguards and security at nuclear power plants, fuel cycle facilities, and nuclear waste processing, storage, and repository facilities.

Portions of this session will be closed as necessary to discuss a licensee's or applicant's detailed security provisions at facilities of the types being considered when the public disclosure of such information could reasonably be expected to have a significant adverse effect on the health and safety of the public or the common defense and security.

9:30 A.M.—10:15 A.M.: Management and Disposal of Radioactive Wastes (Open)—The members will hear and discuss the report of its subcommittee on topics related to radioactive waste management and disposal, including residual radiation limits for the disposition of land, buildings, equipment, and metals resulting from the decontamination and decommissioning of nuclear power plants and fuel facilities, salvaging of contaminated smelted alloys, and the NRC radioactive waste management program.

10:15 A.M.—12:15 P.M.: San Onofre Nuclear Power Station Unit 1 (Open/Closed)—The members will hear and discuss reports of its subcommittee and NRC Staff representatives as appropriate regarding changes in the San Onofre Nuclear Station resulting from the November 21, 1985 loss of feedwater at this facility. Representatives of the licensee will participate as appropriate.

Portions of this session will be closed as necessary to discuss Proprietary Information applicable to this facility.

12:15 P.M.—12:30 P.M.: Future ACRS Activities (Open/Closed)—The members will discuss anticipated subcommittee activities, items proposed for consideration by the full Committee, and proposed activities of individual ACRS members. The proposed schedule for full Committee meetings during CY 1987 will also be discussed.

Portions of this session will be closed as necessary to discuss information the release of which would represent a clearly unwarranted invasion of personal privacy.

1:30 P.M.—3:00 P.M.: Human Factors Issues (Open)—The members will hear and discuss reports from its subcommittee and representatives of the NRC Staff as appropriate regarding proposed activities related to consideration of human factors, including fitness for duty requirements, guidance for nuclear power plant operators and senior reactor operators, and educational requirements for senior reactor operators.

3:15 P.M.—5:15 P.M.: Operating Experience (Open)—The members will hear and discuss the reports of its subcommittee and representatives of the NRC Staff regarding recent operating experience and incidents at nuclear facilities.

5:15 P.M.—6:30 P.M.: TVA Reorganization (Open)—The members of the Committee will discuss proposed ACRS comments and recommendations regarding the proposed reorganization of TVA nuclear activities.

Saturday, August 9, 1986

8:30 A.M.—12:30 P.M.: Preparation of ACRS Reports to the Nuclear Regulatory Commission (Open/Closed)—The members will discuss proposed reports to the NRC regarding matters considered during this meeting. In addition, the members will discuss proposed ACRS reports on safety-related matters such as aptitude testing of nuclear power plant personnel.

Portions of this session will be closed as required to discuss Proprietary Information applicable to the matters being discussed.

1:30 P.M.—3:00 P.M.: Activities of ACRS Subsommittees (Open)—The members will hear and discuss the reports of ACRS subcommittees regarding assigned activities on radioactive waste management and disposal in geologic repositories, nuclear power plant scram system reliability, degraded primary system piping, management of ACRS activities, and procedures for conduct of ACRS activities.

Procedures for the conduct of and participation in ACRS meetings were published in the **Federal Register** on October 2, 1985 (50 FR 191). In accordance with these procedures, oral or written statements may be presented by members of the public, recordings will be permitted only during those portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Committee, its consultants, and Staff. Persons desiring to make oral statements should notify the ACRS Executive Director as far in advance as practicable so that appropriate arrangements can be made to allow the necessary time during the meeting for such statements. Use of still, motion picture and television cameras during this meeting may be limited to selected portions of the meeting as determined by the Chairman. Information regarding the time to be set aside for this purpose may be obtained by a prepaid telephone call to the ACRS Executive Director, R.F. Fraley, prior to the meeting. In view of the possibility that the schedule for ACRS meetings may be adjusted by the Chairman as necessary to facilitate the conduct of the meeting, persons planning to attend should check with the ACRS Executive Director if such rescheduling would result in major inconvenience.

I have determined in accordance with subsection 10(d) Pub. L. 92–463 that it is necessary to close portions of this meeting as noted above to discuss Proprietary Information [5 U.S.C. 552b(c)(4)] applicable to the facilities being discussed, detailed information related to the security arrangements at a nuclear power plant [5 U.S.C. 552b(c)(3)], and information the release of which would represent a clearly unwarranted invasion of personal privacy [5 U.S.C. 552b(c)(6)].

Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted can be obtained by a prepaid telephone call to the ACRS Executive Director, Mr. Raymond F. Fraley (telephone 202/634–3265), between 8:15 A.M. and 5:00 P.M.

Dated: July 29, 1986.

Samuel J. Chilk,

Acting Advisory Committee Management Officer.

[FR Doc. 86–17501 Filed 8–1–86; 8:45 am]

BILLING CODE 7590–01–M

Commission Policy Statement on Fitness for Duty of Nuclear Power Plant Personnel

AGENCY: Nuclear Regulatory Commission.

ACTION: Policy statement.

SUMMARY: This statement presents the policy of the Nuclear Regulatory Commission (NRC) with respect to fitness for duty of nuclear power plant personnel and describes the activities that the NRC will use to execute its responsibilities to ensure the health and safety of the public. To provide reasonable assurance that all nuclear power plant personnel with access to vital areas at operating plants are fit for duty, licensees and applicants are developing and implementing fitness for duty programs using guidance of the Edison Electric Institute's (EEI's) "EEI Guide to Effective Drug and Alcohol/Fitness for Duty Policy Development." It remains the continuing responsibility of the NRC to independently evaluate applicant development and licensee implementation of fitness for duty programs to ensure that desired results are achieved. Nothing in this Policy Statement limits NRC's authority or responsibility to follow up on operational events or its enforcement authority when regulatory requirements are not met. However, while evaluating the effectiveness of this guidance, the NRC intends to exercise discretion in enforcement matters related to fitness for duty programs for nuclear power plant personnel and refrain from new rulemaking in this area for a period of at least 18 months from the effective date of this Policy Statement. The Commission invites interested members of the public to provide comments on this policy statement.

DATES: Effective Date: August 4, 1986. Submit comments by November 3, 1986.

ADDRESSES: Comments should be sent to: Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, ATTN: Docketing and Service Branch. Hand deliver comments to: Room 1121, 1717 H Street NW., Washington, DC between 8:15 a.m. and 5:00 p.m.

FOR FURTHER INFORMATION CONTACT: Loren Bush, Operating Reactor Programs Branch, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492–8080.

SUPPLEMENTARY INFORMATION:

Introduction

The Nuclear Regulatory Commission (NRC) recognizes drug and alcohol abuse problems to be a social, medical, and safety problem affecting every segment of our society. Given the pervasiveness of the problem it must be recognized that it exists to some extent in the nuclear industry. Prudence, therefore, requires that the Commission consider additional appropriate measures to provide reasonable assurance that a person who is under the influence of alcohol or any substance legal or illegal which affects that person's ability to perform duties safely, is not allowed access to a vital area at a nuclear power plant.

The nuclear power industry, with assistance from programs developed and coordinated by EEI and the Institute of Nuclear Power Operations (INPO), has made and is continuing to make substantial progress in this area.

Background

A Task Force on Drug Abuse Problems, Policies, and Programs established in 1982 by EEI's Industrial Relations Division Executive Advisory Committee, published guidelines in 1983 to help the industry address the issue of how to establish comprehensive fitness for duty programs. They were subsequently revised in 1985 as the "EEI Guide to Effective Drug and Alcohol/Fitness for Duty Policy Development" and were provided to all nuclear utilities.

A series of EEI sponsored regional conferences in the fitness for duty area in 1982 and 1983 provided a forum for discussion of industry concerns related to development and implementation of fitness for duty programs. Topics addressed at the conferences included union participation, legal aspects, training, and methods for handling controlled substances. An industrywide conference sponsored by EEI in October 1985 provided the basis for additional discussions on fitness for duty based on the current EEI guidelines which had been expanded to include information on chemical testing. As a result of increased awareness in this area, the nuclear industry has worked to develop and implement improved fitness for duty programs. These programs concentrate on the training of managers, supervisors, and others in methods for identifying and dealing with personnel potentially unfit for duty.

On August 5, 1982, the Commission published in the **Federal Register** a proposed rule on fitness for duty (47 FR 33980). The proposed rule would have required licensees to establish and implement written procedures for ensuring that personnel in a nuclear power plant are fit for duty. Due to the initiatives taken by the nuclear industry, the Commission has decided to defer implementation of the rule subject to successful implementation of fitness for duty programs by the industry as described in this Policy Statement. NRC is publishing a separate notice in the **Federal Register** withdrawing the proposed rule, analyzing the comments on the rule, and explaning its intent to reassess the possible need for rulemaking after an 18-month period, if circumstances warrant. The following statement sets forth the Commission's policy on fitness for duty and describes how it will execute its responsibilities in this area to ensure the health and safety of the public.

Policy Statement

The Commission recognizes that the industry, through the initiatives of the Nuclear Utility Management and Resources Committee (NUMARC), EEI, and INPO, has made progress in developing and implementing nuclear utility employee fitness for duty programs. The Commission stresses the importance of industry's initiative and wishes to further encourage such self-improvement.

Subject to the continued success of industry's initiatives in implementing fitness for duty programs and NRC's ability to monitor the effectiveness of those programs, the Commission will refrain from new rulemaking on fitness for duty of nuclear power plant personnel for a minimum of 18 months from the effective date of this Policy Statement. The Commission's decision to defer implementation of rulemaking in this area is in recognition of industry efforts to date and the intent of the industry to utilize the EEI Guidelines in developing fitness for duty programs. The Commission will exercise this deference as long as the industry programs produce the desired results. However, the Commission continues to be responsible for evaluating licensee's efforts in the fitness for duty area to verify effectiveness of the industry programs. The Commission will reassess the possible need for further NRC action based on the success of those programs during the 18-month period.

At the Commission's request, the industry agreed to undertake a review of the program elements and acceptance criteria for a fitness for duty program. EEI modified and issued the revised "EEI Guideline to Effective Drug and Alcohol/Fitness for Duty Policy Development." Further, INPO enhanced its performance objectives and criteria for its periodic evaluations to include appropriate criteria for fitness for duty. Copies of the documents describing the

program elements and criteria for fitness for duty programs developed by the industry are provided to NRC for review and comment.

The NRC will evaluate the effectiveness of utility fitness for duty programs by its normal review of industry activities, through reviews of INPO program status and evaluation reports, periodic NRC observation of the conduct of INPO evaluations, and direct inspections conducted by the NRC's Performance Appraisal Teams, Regional Office, and Resident Inspectors. NRC will also monitor the progress of individual licensee programs.

By way of further guidance to licensees, Commission expectations of licensee programs for fitness for duty of nuclear power plant personnel may be summarized as follows:

- It is Commission policy that the sale, use, or possession of alcoholic beverages or illegal drugs within protected areas at nuclear plant sites is unacceptable.
- It is Commission policy that persons within protected areas at nuclear power plant sites shall not be under the influence of any substance, legal or illegal, which adversely affects their ability to perform their duties in any way related to safety.
- An acceptable fitness for duty program should at a minimum include the following essential elements:

(1) A provision that the sale, use, or possession of illegal drugs within the protected area will result in immediate revocation of access to vital areas and discharge from nuclear power plant activities. The use of alcohol or abuse of legal drugs within the protected area will result in immediate revocation of access to vital areas and possible discharge from nuclear power plant activities.

(2) A provision that any other sale, possession, or use of illegal drugs will result in immediate revocation of access to vital areas, mandatory rehabilitation prior to reinstatement of access, and possible discharge from nuclear power plant activities.

(3) Effective monitoring and testing procedures to provide reasonable assurance that nuclear power plant personnel with access to vital areas are fit for duty.

The industry, by periodic briefings or other appropriate methods, is expected to keep the Commission informed on program status. The NRC may also from time to time ask individual licensees to provide such information as the Commission may need to assess program adequacy.

Enforcement

Violations of any applicable reporting requirement or instances of a person being unfit for duty such that plant safety is potentially affected will be subject to the enforcement process. Any NRC staff enforcement action pertaining to fitness for duty of nuclear power plant personnel during the 18-month grace period will be undertaken only with Commission concurrence.

In addition to required reports and inspections, information requests under 10 CFR 50.54(f) may be made and enforcement meetings held to ensure understanding of corrective actions. Orders may be issued where necessary to achieve corrective actions on matters affecting plant safety.

In brief, the NRC's decision to use discretion in enforcement to recognize industry initiatives in no way changes the NRC's ability to issue orders, call enforcement meetings, or suspend licenses should a significant safety problem be found.

Nothing in this Policy Statement shall limit the authority of the NRC to conduct inspections as deemed necessary or to take appropriate enforcement action when regulatory requirements are not met.

The separate views of Commissioner Asselstine follow:

This Policy statement is a step in the right direction. Human error is a dominant factor in the risk associated with the operation of nuclear power plants. An adequate fitness for duty program is essential to reduce the chance that human error will be caused by utility personnel performing safety-related work in a drug or alcohol impaired state. This policy statements puts the Commission on record as endorsing the concept of a drug and alcohol free workplace at plant sites, and that is useful. The statement also gives some guidance on what the Commission expects of licensee fitness for duty programs. However, I believe that the Commission should have gone further.

Instead of merely issuing a policy statement, the Commission should have promulgated a rule. The rule should be a relatively simple, nonprescriptive rule which would do two things. First, it would prohibit anyone who is unfit for duty from being permitted access to vital areas of plants. Second, it would require licensees to have a program and procedures to ensure that no one who is unfit for duty gains access to vital areas. The Commission should then work with the industry to develop guidance on what are the essential elements of an adequate fitness for duty program. There are several reasons why I believe that this would be a better approach.

The most important reason for my preference for a rule and specific guidelines is that a rule is enforceable while a policy statement is not. With a rule the Commission would have a clear basis for enforcement action in all cases in which a utility fails to establish and maintain an effective finess for duty program. The NRC has broad authority under the Atomic Energy Act to take enforcement action by issuing an order should there be an immediate threat to public health and safety. The Commission would also be able to take enforcement action if it could tie a specific safety problem to a lapse in the licensee's fitness for duty program. However, the Commission is unlikely to be able to do so. For example, if a maintenance worker makes a mistake in assembling safety equipment because he is under the influence of drugs or alcohol and equipment later malfunctions, it is unlikely that the true cause of the mistake would be discovered. In fact, the problem would most likely be attributed to some defect in the worker's training. Further, waiting until a specific safety problem surfaces or an immediate threat occurs and then trying to correct the fitness for duty program after the fact is not the best way to ensure that licensees have effective fitness for duty programs. Thus, our general enforcement authority does not provide us with enough flexibility to deal with all potential fitness for duty problems in a timely manner. Absent a specific event, it would not allow us to do much of anything if a licensee simply has not developed or implemented an adequate program. This policy statement represents a continuation of the reactive approach to regulation which has so often failed in the past.

A second reason for my preference for a rule with minimum guidelines is that the policy statement is too amorphous. Even the "specific" guidance the Commission does provide is fairly vague. The policy statement provides little insight into what the Commission considers to be an adequate fitness for duty program or what standard the staff is supposed to use as it monitors the progress of the industry over the next eighteen months.

The Commission should work together with the industry to identify the essential elements of an adequate fitness for duty program. While the policy statement comments favorably upon the EEI guidelines developed by the industry, those guidelines are optional, not mandatory. The utilities can, therefore, pick and choose among

the various elements and decide whether to include them in their programs. Moreover, the EEI guidelines themselves are quite general in nature, and are subject to varying interpretations. Absent further guidance on what is an acceptable fitness for duty program, the utilities can and probably will adopt widely differing approaches on such elements as chemical testing and offsite drug use. Not all approaches are likely to be acceptable. The Commission should not wait until 18 months from now, when all the utilities are supposed to have their programs in place, to let the industry know whether the Commission agrees with what they have done. The Commission and the industry ought to decide now which elements are absolutely essential to an adequate program, and then everyone will be working from a common base of understanding.

The Commission and the industry should also establish the specific criteria against which individual licensee programs will be evaluated so that the ground rules for evaluating programs and for monitoring progress will be in place before the 18 month monitoring period begins. Absent such guidelines, it is difficult to see how INPO and NRC staff reviews of these programs will provide any meaningful insights as to their adequacy.

Thus, to ensure enforceability, to set the ground rules in advance and to ensure that all utilities meet at least a minimum set of standards, I believe the Commission should issued a rule and should establish guidance, in cooperation with the industry, on just exactly what are the essential elements of a fitness for duty program.

The additional views of the Commission follow:

The Commission does not share Commissioner Asselstine's great concern about the legally non-binding character of the policy statement per se. The Commission's hands are not tied if it finds inadequate compliance with straight-forward and explicit policy guidelines. The Atomic Energy Act confers broad authority for the Commission to take prompt enforcement action should any licensee facility, in the Commission's judgment, not be operated in a manner that protects the public health and safety. A policy statement, at this juncture, offers the quickest means to achieve the end we all desire.

Dated at Washington, DC, this 30th day of July 1986.

For the Nuclear Regulatory Commission.

Lando W. Zech, Jr.,

Chairman.

[FR Doc. 86-17497 Filed 8-1-86; 8:45 am]

BILLING CODE 7590-01-M

SMALL BUSINESS ADMINISTRATION

Agency Information Collection Activities

ACTION: Notice of reporting requirements submitted for review.

SUMMARY: Under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35), agencies are required to submit proposed reporting and recordkeeping requirements to OMB for review and approval, and to publish a notice in the **Federal Register** notifying the public that the agency has made such a submission.

DATE: Comments should be submitted within 21 days of this publication in the **Federal Register.** If you intend to comment but cannot prepare comments promptly, please advise the OMB Reviewer and the Agency Clearance Officer before the deadline.

Copies: Copies of forms, request for clearance (S.F. 83s), supporting statements, instructions, and other documents submitted to OMB for review may be obtained from the Agency Clearance Officer. Submit comments to the Agency Clearance Officer and the OMB Reviewer.

FOR FURTHER INFORMATION CONTACT:

Agency Clearance Officer: Richard Vizachero, Small Business Administration, 1441 L Street, NW., Room 200, Washington, DC 20416, Telephone: (202) 653-8538

OMB Reviewer: Patricia Aronsson Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Washington, DC 20503, Telephone: (202) 395-7231

Title: Executive Qualifications Questionnaire
Frequency: On occasion
Description of Respondents: This information is requested from applicants for SES positions to assist in evaluating qualifications for a vacancy.
Annual Responses: 400
Annual Burden Hours: 400
Type of Request: Extension

Title: Secondary Participation Guaranty and Certification Agreement and Request for Certification
Form nos. SBA 1085, 1086
Frequency: On occasion
Description of Respondents: These forms describe the rights and responsibilities of the SBA, a lender, and the investor when the guaranteed portion of a loan is sold.
Annual Responses: 3,200
Annual Burden Hours: 12,000
Type of Request: Extension

Title: Profile of Score/ACE Volunteer with international trade experience
Form no. SBA 1202
Frequency: On occasion
Description of Respondents: Information is collected by SCORE/ACE chapters when new members join the organization, if they have international trade experience.
Annual Responses: 500
Annual Burden Hours: 34
Type of Request: Extension

Title: Financial assistance request to participate in International Trade Exhibition or mission
Form no. SBA 1369
Frequency: On occasion
Description of Respondents: The information requested is necessary for SBA to evaluate a firm's eligibility to receive a grant or financial assistance to participate in an international trade exhibition or mission.
Annual Responses: 100
Annual Burden Hours: 175
Type of Request: Extension

Title: Client Export File
Form no. SBA 1174
Frequency: On occasion
Description of Respondents: This information is necessary in order to identify the firm's needs and is used to create a program of export development for the small business requesting counseling in international trade.
Annual Responses: 5,000
Annual Burden Hours: 850
Type of Request: Extension

Title: Personal Financial Statement
Form no. SBA 413
Frequency: On occasion
Description of Respondents: This information is used to assist the Agency in determining the financial strength of an individual for a loan or loan guaranteed by SBA.
Annual Responses: 76,500
Annual Burden Hours: 76,500
Type of Request: Revision

Title: Inquiry Record
Form no. SBA 149
Frequency: On occasion
Description of Respondents: This information is required at the time of interview so that the applicant can communicate the loan needs to agency, and to determine the size and

purpose eligibility and credit worthiness.

Annual Responses: 240,000

Annual Burden Hours: 120,000

Type of Request: Revision

Title: This information is required from applicants applying for financial assistance and used to make credit decisions.

Form nos. SBA 4, 4I 4 Sch. A

Frequency: On occasion

Description of Respondents: Information is collected by SCORE/ACE chapters when new members join the organization, if they have international trade experience.

Annual Responses: 30,000

Annual Burden Hours: 600,000

Type of Request: Revison

Richard Vizachero,

Chief, Administrative Procedures and Documentation Section, Small Business Administration.

[FR Doc. 86-17429 Filed 8-1-86; 8:45 am]

BILLING CODE 8025-01-M

[License No. 02/02-5496]

Trico Venture, Inc.; Application, Hearings, Determinations, etc.

On April 1, 1986, a notice was published in the **Federal Register** (62 FR 11134) stating that an application had been filed by Trico Venture, Inc., 805 Avenue L, Brooklyn, New York 11230, with the Small Business Administration (SBA), for a license to operate as a small business investment company (SBIC), pursuant to § 107.102 of the Regulations governing SBICs (13 CFR 107.102 (1986).

Interested parties were given until the close of business April 30, 1986, to submit their comments on the application to SBA. No comments were received.

Notice is hereby given that, pursuant to section 301(d) of the Small Business Investment Act of 1958, as amended, after having considered the application and all other information, SBA issued License No. 02/02-5496 to Trico Venture, Inc. on June 27, 1986 to operate as a section 301(d) SBIC.

(Catalog of Federal Domestic Assistance Program No. 59.011, Small Business Investment Companies).

Dated: July 25, 1986.

Robert G. Lineberry,

Deputy Associate Administrator for Investment.

[FR Doc. 86-17430 Filed 8-1-86; 8:45 am]

BILLING CODE 8025-01-M

DEPARTMENT OF TRANSPORTATION

Office of the Secretary

Reports, Forms, and Recordkeeping Requirements: Submittals to OMB on July 29, 1986

AGENCY: Office of the Secretary, DOT.

ACTION: Notice.

SUMMARY: This notice lists those forms, reports, and recordkeeping requirements imposed upon the public which were transmitted by the Department of Transportation on July 29, 1986, to the Office of Management and Budget (OMB) for its approval in accordance with the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35).

FOR FURTHER INFORMATION CONTACT: John Chandler, Annette Wilson, or Cordelia Shepherd, Information Requirements Division, M-34, Office of the Secretary of Transportation, 400 Seventh Street SW., Washington, DC 20590, telephone (202) 366-4735, or Gary Waxman or Sam Fairchild, Office of Management and Budget, New Executive Office Building, Room 3228, Washington, DC 20503, (202) 395-7340.

SUPPLEMENTARY INFORMATION:

Background

Section 3507 of Title 44 of the United States Code, as adopted by the Paperwork Reduction Act of 1980, requires that agencies prepare a notice for publication in the **Federal Register**, listing those information collection requests submitted to the Office of Management and Budget (OMB) for initial, approval, or for renewal under that Act. OMB reviews and approves agency submittals in accordance with criteria set forth in that Act. In carrying out its responsibilities, OMB also considers public comments on the proposed forms, reporting and recordkeeping requirements. OMB approval of an information collection requirement must be renewed at least once every three years.

Information Availability and Comments

Copies of the DOT information collection requests submitted to OMB may be obtained from the DOT officials listed in the "For Further Information Contact" paragraph set forth above. Comments on the requests should be forwarded, as quickly as possible, directly to the OMB officials listed in the "For Further Information Contact" paragraph set forth above. If you anticipate submitting substantive comments, but find that more than 10 days from the date of publication are needed to prepare them, please notify the OMB officials of your intent immediately.

Items Submitted for Review by OMB

The following information collection requests were submitted to OMB on July 29, 1986.

DOT No: 2767

OMB No: 2127-0049

By: National Highway Traffic Safety Administration

Title: 49 CFR Part 575, Consumer Information Regulations (Excluding UTQGS)

Form(s): None

Frequency: On occasion

Respondents: Motor Vehicle Manufacturers

Need/Use: These regulations establish a system by which information about the performance and safety features on new motor vehicles is made available to vehicle purchasers and prospective purchasers.

DOT No: 2768

OMB No: 2125-0074

By: Federal Highway Administration

Title: Endorsement for Motor Carrier Policies of Insurance

Form(s): MCS-90 and MCS-82

Frequency: Other: During period policy is in effect.

Respondents: Affected Motor Carriers

Need/Use: To meet the requirements for motor carriers to retain the endorsement and surety bond at its principal place of business and to make available the endorsement and surety bond to the public.

DOT No: 2769

OMB No: 2120-0101

By: Federal Aviation Administration

Title: Physiological Training

Form(s): AC Form 3150-7

Frequency: On occasion

Respondents: Pilots

Need/Use: This report is necessary to establish qualifications of eligibility to receive voluntary physiological training and will be used as evidence of training. This form is filled out by pilots and air crewmembers for application to receive voluntary training.

DOT No: 2770

OMB No: 2106-0005 [1]

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[1] OMB No. 2106-0014 is consolidated in 2106-0005.

By: DOT/Office of the Secretary of Transportation
Title: 14 CFR Part 380 Public Charters
Form(s): OST 4532, 4533, 4534, 4535, and 4530
Frequency: On occasion
Respondents: U.S. and Foreign Public Charter Operators

Need/Use: Certification of binding contracts with direct air carriers and financial institutions, and registration of foreign operators are needed prior to the operation of Public Charters in air transportation.

DOT No: 2771

OMB No: 2115–0076
By: United States Coast Guard
Title: Security Zones, Regulated Navigation Areas and Safety Zones
Form(s): N/A
Frequency: On occasion
Respondents: Waterways Users

Need/Use: This information collection requirement is needed and used to: (1) Establish security zones to control and limit access into an area by prohibiting marine traffic, requiring reduced speed, controlling spectators, and other restrictions; (2) determine that certain areas of the navigable waters of the U.S. require special regulations to assure safe navigation of vessels; and (3) establish water or waterfront safety zones to protect vessels, structures, water or shore areas.

DOT No: 2772

OMB No: 2127–0541
By: National Highway Traffic Safety Administration
Title: Owner's Manual Requirements—Motor Vehicle and Motor Vehicle Equipment—49 CFR 571.126, 205, 208, 210, and 575.105
Form(s): None
Frequency: Annually
Respondents: Manufacturers

Need/Use: Certain safety information which could benefit the vehicle operator by reducing the risk of harm must be included in the vehicle Owner's Manual to provide for safe operation by users.

DOT No: 2773

OMB No: 2120–0040
By: Federal Aviation Administration
Title: Aviation Maintenance Technician School
Form(s): FAA Form 8310–6
Frequency: On occasion
Respondents: Businesses, State and Local governments
Need/Use: FAA Act of 1958, Section 607 authorizes certification of civil aviation mechanic schools: FAR 147 prescribes requirements for certification and operation of aviation mechanic schools. Information collected is needed to determine applicant eligibility and compliance.

DOT No: 2774

OMB No: 2127–0051
By: National Highway Traffic Safety Administration
Title: Vehicle Identification Number—Basic Requirements, FMVSS No. 115 and Vehicle Identification Number—Contract Requirements, Part 565
Form(s): None
Frequency: On occasion
Respondents: Vehicle manufacturers

Need/Use: The purpose of these requirements are to specify general physical requirements for a vehicle identification number (VIN); and its installation, format, and content to simplify information retrieval and increase the accuracy and efficiency of vehicle defect recall campaigns.

DOT No: 2775

OMB No: 2125–003
By: Federal Highway Administration
Title: Statement of Materials and Labor Used by Contractors on Highway Construction
Form(s): FHWA 47
Frequency: On occasion
Respondents: Highway Construction Contractors/State and local highway agencies

Need/Use: To obtain information on usage of materials and labor in Federal highway construction.

DOT No: 2776

OMB No: 2120–0103
By: Federal Aviation Administration
Title: Application for Parking Permits at Washington National Airport and Dulles International Airport
Form(s): MA Form 1780–1 and 4665–1
Frequency: Annually
Respondents: DCA and IDA Employees

Need/Use: The purpose of this information collection activity is the administration of the employee parking program in order to issue qualified applicants airport parking permit.

DOT No: 2777

OMB No: 2120–098
By: Federal Aviation Administration
Title: Airplane Operator Security—FAR 108
Form(s): FAA Form 1650–17
Frequency: On occasion
Respondents: Airplane Operators/Businesses

Need/Use: FAR Part 108 requires air carriers to check radiation leakage on X-ray equipment used for property security screening at least annually, evaluate and record personal dosimeter readings monthly, and report aircraft piracy as part of the required security program, and maintain security training records.

DOT No: 2778

OMB No: 2138–0018
By: Research and Special Programs Administration
Title: Form 251 Report of Passengers Denied Confirmed Space
Forms: RSPA Form 251
Frequency: Quarterly
Respondents: Large domestic and foreign scheduled air carriers

Need/Use: This report supplies DOT with data to monitor the compliance of the air transportation industry with DOT's policy on overbooking.

Issued in Washington, DC, on July 29, 1986.

John E. Turner,
Director of Information Resource Management.

[FR Doc. 86–17502 Filed 8–1–86; 8:45 am]
BILLING CODE 4910–62–M

[Order 86–7–72; Docket 42262]

Proposed Revocation of the Section 401 Certificate of Westates Airlines, Inc.

AGENCY: Department of Transportation, Office of the Secretary.

ACTION: Notice of order to show cause, order 86–7–72; Docket 42262.

SUMMARY: The Department of Transporation is directing all interested persons to show cause why it should not issue an order revoking the certificate of Westates Airlines, Inc., issued under section 401 of the Federal Aviation Act.

DATES: Persons wishing to file objections should do so no later than August 19, 1986.

ADDRESSES: Responses should be filed in Docket 42262 and addressed to the Documentary Service Division, Department of Transporation, 400 7th Street, SW., Room 4107, Washington, DC 20590 and should be served on the parties listed in Attachment A to the order.

FOR FURTHER INFORMATION CONTACT: Kathy A. Lusby, Special Authorities Division, P–47, U.S. Department of Transportation, 400 7th Street, SW., Washington, DC 20590, (202) 366–2337.

Dated: July 29, 1986.

Matthew V. Scocozza,
Assistant Secretary for Policy and International Affairs.

[FR Doc. 86–17505 Filed 8–1–86; 8:45 am]
BILLING CODE 4910–62–M

Aviation Proceedings; Agreements Filed During the Week Ending, July 25, 1986

The following agreements were filed with the Department of Transportation under the provisions of 49 U.S.C. 408, 409, 412, and 414. Answers may be filed within 21 days of date of filing.

Docket No. 44185–R–1–R–25

Parties: Members of International Air Transport Association
Date Filed: July 21, 1986
Subject: Composite Cargo
Proposed Effective Date: October 1, 1986

Docket No. 44186–R–1–R–18

Parties: Members of International Air Transport Association
Date Filed: July 21, 1986
Subject: North Atlantic Cargo Rates
Proposed Effective Date: October 1, 1986

Docket No. 44190–R–1–R–3

Parties: Members of International Air Transport Association
Date Filed: July 22, 1986
Subject: Japan/Canada—U.S. Cargo Rates
Proposed Effective Date: October 1, 1986

Docket No. 44191–R–1–R–3

Parties: Members of International Air Transport Association
Date Filed: July 22, 1986
Subject: Japan—TC1 (Except Canada/U.S.)
Proposed Effective Date: October 1, 1986

Docket No. 44192–R–1–R–11

Parties: Members of International Air Transport Association
Date Filed: July 22, 1986
Subject: North Central Pacific—TC1 Rates
Proposed Effective Date: October 1, 1986

Docket No. 44197–R–1–R–28

Parties: Members of International Air Transport Association
Date Filed: July 24, 1986
Subject: TC2 Cargo Rates
Proposed Effective Date: October 1, 1986

Docket No. 44195

Parties: Air Traffic Conference of America
Date Filed: 7–24–86
Subject: Application of Air Traffic Conference of America requests amendment to an Air Traffic Conference Resolution. In addition requests approval of an exemption from the antitrust laws to the extent necessary to enable such person to proceed with the transactions specifically approved by the Board, pursuant to the provisions of Section 414 of the Act.

Docket No. 44202

Parties: Presidential Airways, Inc. and Key Airlines, Inc.
Date Filed: 7–25–86
Subject: Application of Presidential Airways, Inc. requests an exemption from Sections 408 and 401(h) of the Act to the extent necessary to permit Presidential to acquire all of the outstanding stock of Key Airlines, Inc.

Phyllis T. Kaylor,
Chief, Documentary Services Division.
[FR Doc. 86–17503 Filed 8–1–86; 8:45 am]
BILLING CODE 4910–62–M

Applications For Certificates of Public Convenience and Necessity and Foreign Air Carrier Permits Filed Under Subpart Q During the Week Ended

July 25, 1986.

The following applications for certificates of public convenience and necessity and foreign air carrier permits were filed under Subpart Q of the Department of Transportation's Procedural Regulations (See 14 CFR 302.1701 et. seq.). The due date for answers, conforming application, or motions to modify scope are set forth for each application. Following the answer period DOT may process the application by expedited procedures. Such procedures may consist of the adoption of a show-cause order, a tentative order, or in appropriate cases a final order without further proceedings.

Docket No. 44199

Date Filed: July 25, 1986
Due Date for Answers, Conforming Applications, or Motion to Modify Scope: August 22, 1986
Description: Application of Piedmont Aviation, Inc. pursuant to section 401 of the Act and Subpart Q of the Regulations applies for a certificate of public convenience and necessity to provide round-trip air transportation between Charlotte, North Carolina and London, England.

Docket No. 44201

Date Filed: July 25, 1986
Due Date for Answers, Conforming Applications, or Motion to Modify Scope: August 22, 1986.
Description: Application of the Flying Tiger Line Inc. pursuant to section 401 of the Act and Subpart Q of the Regulations for a certificate of Public convenience and necessity to engage in scheduled foreign air transportation of property and mail between points in the United States and the Kingdom of Saudia Arabia.

Phyllis T. Kaylor,
Chief, Documentary Service Division.
[FR Doc. 86–17504 Filed 8–1–86; 8:45 am]
BILLING CODE 4910–62–M

Coast Guard

[CGD 86–048]

Houston/Galveston Navigation Safety Advisory Committee; Meeting

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463; 5 U.S.C. App. I) notice is hereby given of the twelfth meeting of the Houston/Galveston Navigation Safety Advisory Committee. The meeting will be held on Thursday, September 25, 1986 in the BLACKTHORN Pavilion at U.S. Coast Guard Base Galveston at the end of the Ferry Road on Fort Point, Galveston, Texas. The meeting is scheduled to begin at approximately 10:00 a.m. and end at approximately 5:00 p.m. The agenda for the meeting consists of the following items:

1. Call to Order
2. Discussion of previous recommendations made by the Committee
3. Presentation of any additional new items for consideration of the Committee
4. Adjournment

The purpose of this Advisory Committee is to provide recommendations and guidance to the Commander, Eighth Coast Guard District on navigation safety matters affecting the Houston/Galveston area.

Attendance is open to the public. Members of the public may present written or oral statements at the meeting.

Additional information may be obtained from Commander D.F. Withee, USCG, Executive Secretary, Houston/Galveston Navigation Safety Advisory Committee, c/o Commander, Eighth Coast Guard District (mps), Room 1341, Hale Boggs Federal Building, 500 Camp Street, New Orleans, LA 70130–3396, telephone number (504) 589–6901.

Dated: July 18, 1986.

E.B. Acklin,
Captain, U.S. Coast Guard, Acting Commander, 8th Coast Guard District.
[FR Doc. 86–17468 Filed 8–1–86; 8:45 am]
BILLING CODE 4910–14–M

[CGD 86-046]

Houston/Galveston Navigation Safety Advisory Committee; Inshore Waterway Management Subcommittee Meeting

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. I) notice is hereby given of a meeting of the Inshore Waterway Management Subcommittee of the Houston/Galveston Navigation Safety Advisory Committee. The meeting will be held on Thursday, September, 11, 1986 in the Blackthorn Pavilion at U.S. Coast Guard Base Galveston at the end of Ferry Road on Fort Point, Galveston, Texas. The meeting is scheduled to begin at 9:00 a.m. and end at 10:30 a.m. The agenda for the meeting consists of the following items:

1. Call to Order
2. Discussion of previous recommendations made by the full Advisory Committee and the Inshore Waterway Management Subcommittee
3. Presentation of any additional new items for consideration to the Subcommittee
4. Adjournment

Attendance is open to the public. With advance notice, members of the public may present oral statements at the meeting. Prior to presentation of their oral statements, but no later than the day before the meeting, members of the public shall submit, in writing, to the Executive Secretary of the Houston/Galveston Navigation Safety Advisory Committee, the subject of their comments, a general outline signed by the presenter, and the estimated time required for presentation. The individual making the presentation shall also provide his/her name, address, and , if applicable, the organization he/she is representing. Any member of the public may present a written statement to the Advisory Committee at any time.

Additional information may be obtained from Commander D.F. Withee, USCG, Executive Secretary, Houston/Galveston Navigation Safety Advisory Committee, c/o Commander, Eighth Coast Guard District (mps), Room 1341, Hale Boggs Federal Building, 500 Camp Street, New Orleans, LA 70130-3396, telephone number (504) 589-6901.

Dated: July 18, 1986.

E.B. Acklin,

Captain, U.S. Coast Guard, Acting Commander, 8th Coast Guard District.

[FR Doc. 86-17466 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-14-M

[CGD 86-047]

Houston/Galveston Navigation Safety Advisory Committee; Offshore Waterway Management Subcommittee Meeting

Pursuant to seciton 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. I) notice is hereby given of a meeting of the Offshore Waterway Management Subcommittee of the Houston/Galveston Navigation Safety Advisory Committee. The meeting will be held on Thursday, September 11, 1986 in the Blackthorn Pavilion at U.S. Coast Guard Base Galveston at the end of Ferry Road on Fort Point, Galveston, Texas. The meeting is scheduled to begin at 10:30 a.m. and end at 12:00 p.m. The agenda for the meeting consists of the following items:

1. Call for Order
2. Discussion of previous recommendations made by the full Advisory Committee and the Offshore Waterway Management Subcommittee
3. Presentation of any additional new items for consideration to the Subcommittee
4. Adjournment

Attendance is open to the public. With advance notice, members of the public may present oral statements at the meeting. Prior to presentation of their oral statements, but no later than the day before the meeting, members of the public shall submit, in writing, to the Executive Secretary of the Houston/Galveston Navigation Safety Advisory Committee, the subject of their comments, a general outline signed by the presenter, and the estimated time required for presentation. The individual making the presentation shall also provide his/her name, address, and, if applicable, the organization he/she is representing. Any member of the public may present a written statement to the Advisory Committee at any time.

Additional information may be obtained from Commander D.F. Withee, USCG, Executive Secretary, Houston/Galveston Navigation Safety Advisory Committee, c/o Commander, Eighth Coast Guard District (mps), Room 1341, Hale Boggs Federal Building, 500 Camp Street, New Orleans, LA 70130-3396, telephone number (504) 589-6901.

Dated: July 18, 1986.

E.B. Acklin,

Captain, U.S. Coast Guard, Acting Commander, 8th Coast Guard District.

[FR Doc. 86-17467 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-14-M

Federal Aviation Administration

Intent To Prepare an Environmental Impact Statement on New Runway 2R-20L at Nashville Metropolitan Airport, Nashville, TN; Scoping Meeting

The Federal Aviation Administration, Southern Region acting as lead agency, intends to prepare a Federal Environmental Impact Statement on: New 9,000 foot runway 2R-20L with a parallel taxiway; connecting taxiways; taxiway bridges over Donaldson Pike; Category II/III runway lighting system; Medium Intensity Approach Lighting System (MALSR), on runway 2R and ALSF-2 on runway 20L; realignment of Donaldson Pike; Construction of retention dam on McCrory Creek; Relocation of TVA transmission line; Colonial Pipeline Company gas line and local electric service; land acquisition; construction of additional roads along the east boundary; and construction of a Crash, Fire and Rescue facility. Alternatives runway alignments of 2R-20L, 13-31 and no development will be evaluated.

A Federal Scoping meeting will be held on Thursday, September 4, 1986, at 2:00 P.M. at the Tennessee Air National Guard Facility, Main Hangar Building 721, Metropolitan Nashville Airport. An Environmental Assessment Report is available for review at any branch of the Nashville Metropolitan Public Library System, thru September 4, 1986. The meeting will be held to identify the significant issues related to the proposed development and consider a scope of work to address those issues to this EIS. As part of the follow up scoping process, the study team members will be available from 5:30 P.M. to 8:00 P.M. on the same day and at the same location to further discuss the relevant issues with inerested persons. All interested agencies, organizations, and persons are invited to attend and provide input and comments to finalize the scope of work.

Inquiries about the proposed action should be directed to: Otis T. Welch, Principal Planner/Programmer, FAA Airports District Office, 3973 Knight Arnold Road, Memphis, TN 38118-3004 Telephone Number (901) 521-3495.

Issued in Memphis, Tennessee, July 15, 1986.

Otis T. Welch,

Principal Planner/Programmer, Memphis Airports District Office.

[FR Doc. 86-17418 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-13-M

Flight Service Station at Salt Lake City, UT; Closing

Notice is hereby given that on about August 5, 1986, the flight service station at Salt Lake City, Utah, will be closed. Services to the aviation public formerly provided by this facility will be provided by the automated flight service station in Cedar City, Utah. This information wil be reflected in the FAA Organization Statement the next time it is issued.

(Sec. 313(a), 72 Stat. 752; 49 U.S.C. 1354)

Issued in Seattle, Washington, on July 22, 1986.

Wayne J. Barlow,

Director, Northwest Mountain Region.

[FR Doc. 86-17410 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-13-M

National Highway Traffic Safety Administration

National Highway Safety Advisory Committee; Public Meeting

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463, 5 U.S.C. App. I), notice is hereby given of a meeting of the National Highway Safety Advisory Committee to be held August 13-14, 1986, in Washington, DC. The meeting will be held in Room 2230 at the DOT Headquarters Building, 400 Seventh St. SW., from 9:00 a.m. to 4:00 p.m. on August 13, and 8:30 a.m. to 4:00 p.m. on August 14. The newly appointed Members will receive an orientation briefing and will be sworn-in. The members will also receive an overview of NHTSA and FHWA programs and in-depth briefings on NHTSA's safety belt and alcohol programs.

The meeting is open to the interested public, but may be limited in attendance to the space available. Members of the public may present a written statement to the Committee at any time. With the approval of the Chairperson, members of the public may present oral statements at the meeting. Additional information is available from the NHTSA Executive Secretariat, Room 5221, DOT Headquarters Building, telephone 202-336-2870.

Issued in Washington, DC on: July 29, 1986.

Joseph Cameron,

Acting Director, Executive Secretariat.

[FR Doc. 86-17409 Filed 8-1-86; 8:45 am]

BILLING CODE 4910-59-M

DEPARTMENT OF THE TREASURY

Public Information Collection Requirements Submitted to OMB for Review

Dated: July 25, 1986.

The Department of Treasury has submitted the following public information collection requirement to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of this submission may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Room 7221, 1201 Constitution Avenue, NW., Washington, DC 20220.

Internal Revenue Service

OMB Number: 1545-0028
Form Number: Forms 940 and 940 PR
Type of Review: Revision
Title: Empoyer's Annual Federal Unemployment (FUTA) Tax Return Planilla Para la Declaracion Anual del Patrono—La Contribucion Federal Para el Desempleo (FUTA)
Clearance Officer: Garrick Shear (202) 566-6150, Room 557, 1111 Constitution Avenue, NW., Washington, DC 20224
OMB Reviewer: Robert Neal (202) 395-6880, Office of Mangement and Budget, Room 3208, New Executive Office Building, Washington, DC 20503

Douglas J. Colley,

Departmenal Reports Management Office.

[FR Doc. 86-17437 Filed 8-1-86; 8:45 am]

BILLING CODE 4810-25-M

VETERANS ADMINISTRATION

Agency Form Under OMB Review

AGENCY: Veterans Administration.

ACTION: Notice.

The Veterans Administration has submitted to OMB for review the following proposal for the collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35). This document contains a new collection and lists the following information: (1) The department or staff office issuing the form, (2) the title of the form, (3) the agency form number, if applicable, (4) how often the form must be filled out, (5) who will be required or asked to report, (6) an estimate of the number of responses, (7) an estimate of the total number of hours needed to fill out the form, and (8) an indication of whether section 3504(h) of Pub. L. 96-511 applies.

ADDRESSES: Copies of the form and supporting documents may be obtained from Jill Cottine, Agency Clearance Officer (732), Veterans Administration, 810 Vermont Avenue NW., DC 20420, (202) 389-2146. Comments and questions about the items on the list should be directed to the VA's OMB Desk Officer, Dick Eisinger, Office of Management and Budget, 726 Jackson Place NW., Washington, DC 20503, (202) 395-7316.

DATES: Comments on the information collection should be directed to the OMB Desk Officer within 60 days of this notice.

Dated: July 30, 1986.

By direction of the Administrator.

David A. Cox,

Associate Deputy Administrator for Management.

New

1. Department of Veterans Benefits
2. Notice of Default and Intention to Foreclose
3. VA Form 26-6850a
4. On occasion
5. Businesses or other for-profit
6. 85,192 responses
7. 28,397 hours
8. Not applicable

[FR Doc. 86-17463 Filed 8-1-86; 8:45 am]

BILLING CODE 8320-01-M

Sunshine Act Meetings

Federal Register
Vol. 51, No. 149
Monday, August 4, 1986

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).

CONTENTS

	Item
Commodity Futures Trading Commission	1–5
Federal Deposit Insurance Corporation	6, 7
Tennessee Valley Authority	8

1

COMMODITY FUTURES TRADING COMMISSION

TIME AND DATE: 10:00 a.m., August 12, 1986.

PLACE: 2033 K Street, NW., Washington, DC, 5th Floor Hearing Room.

STATUS: Open.

MATTERS TO BE CONSIDERED:

Application of the New York Cotton Exchange for designation as a contract market in U.S. Dollar Index Options.

Proposed Linkage between the Commodity Exchange, Inc. and Sydney Futures Exchange, Ltd.

CONTACT PERSON FOR MORE INFORMATION: Jean A. Webb, 254–6314.

Jean A. Webb,

Secretary of the Commission.

[FR Doc. 86–17543 Filed 7–31–86; 12:26 pm]

BILLING CODE 6351–01–M

2

COMMODITY FUTURES TRADING COMMISSION

TIME AND DATE: 11:00 a.m., August 12, 1986.

PLACE: 2033 K Street, NW., Washington, DC, 8th Floor Conference Room.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

Enforcement Matters.

CONTACT PERSON FOR MORE INFORMATION: Jean A. Webb, 254–6314.

Jean A. Webb,

Secretary of the Commission.

[FR Doc. 86–17544 Filed 7–31–86; 12:26 pm]

BILLING CODE 6351–01–M

3

COMMODITY FUTURES TRADING COMMISSION

TIME AND DATE: 10:00 a.m., August 19, 1986.

PLACE: 2033 K Street, NW., Washington, DC, 8th Floor Conference Room.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

Enforcement Matters.

CONTACT PERSON FOR MORE INFORMATION: Jean A. Webb, 254–6314.

Jean A. Webb,

Secretary of the Commission.

[FR Doc. 86–17545 Filed 7–31–86; 12:26 pm]

BILLING CODE 6351–01–M

4

COMMODITY FUTURES TRADING COMMISSION

TIME AND DATE: 10:00 a.m., August 27, 1986.

PLACE: 2033 K Street, NW., Washington, DC, 5th Floor Hearing Room.

STATUS: Open.

MATTERS TO BE CONSIDERED:

Advance Notice of proposed rulemaking of Federal Speculative Position Limits

Quarterly Objectives—First Quarter FY 1987

CONTACT PERSON FOR MORE INFORMATION: Jean A. Webb, 254–6314.

Jean A. Webb,

Secretary of the Commission.

[FR Doc. 86–17546 Filed 7–31–86; 12:26 pm]

BILLING CODE 6351–01–M

5

COMMODITY FUTURES TRADING COMMISSION

TIME AND DATE: 11:00 a.m., August 27, 1986.

PLACE: 2033 K Street, NW., Washington, DC, 8th Floor Conference Room.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

Enforcement Quarterly Objectives

Rule enforcement review

Enforcement Matters

CONTACT PERSON FOR MORE INFORMATION: Jean A. Webb, 254–6314.

Jean A. Webb,

Secretary of the Commission.

[FR Doc. 86–17547 Filed 7–31–86; 12:26 pm]

BILLING CODE 6351–01–M

6

FEDERAL DEPOSIT INSURANCE CORPORATION

Changes in Subject Matter of Agency Meeting

Pursuant to the provisions of subsections (e)(2) of the "Government in the Sunshine Act" (5 U.S.C. 552b(e)(2)), notice is hereby given that at its open meeting held at 2:00 p.m. on Tuesday, July 29, 1986, the Corporation's Board of Directors determined, on motion of Chairman L. William Seidman, seconded by Mr. Robert J. Herrmann, acting in the place and stead of Robert L. Clarke (Comptroller of the Currency), concurred in by Director C.C. Hope, Jr. (Appointive), that Corporation business required the addition to the agenda for consideration at the meeting, on less than seven days' notice to the public, of the following matters:

Application of Foothill Thrift and Loan, an operating noninsured industrial bank located at 1304 Foothill Drive, Salt Lake City, Utah, for Federal deposit insurance.

Application of Dumas State Bank, Dumas, Arkansas, an insured State nonmember bank, for consent to purchase the fixed assets of and assume the liability to pay deposits made in the Dumas Office of FirstSouth, F.A., Pine Bluff, Arkansas, a non-FDIC-insured institution, and for consent to establish the Dumas Office of FirstSouth, F.A. as a branch of Dumas State Bank.

Application of First National Bank of Phillips County, Helena, Arkansas, for consent to purchase certain assets of and assume the liability to pay certain deposits made in the Helena Office of FirstSouth, F.A., Pine Bluff, Arkansas, a non-FDIC-insured institution.

Application of National City Bank, Cleveland, Ohio, for consent to purchase certain assets of and assume the liability to pay deposits made in 14 branches of The Broadview Savings and Loan Company, Cleveland, Ohio, a non-FDIC-insured institution.

Application of National City Bank, Akron, Akron, Ohio, for consent to purchase certain assets of and assume the liability to pay deposits made in three branches of The Broadview Savings and Loan Company, Cleveland, Ohio, a non-FDIC-insured institution.

Application of The Third National Bank of Sandusky, Sandusky, Ohio, for consent to purchase certain assets of and assume the liability to pay deposits made in the Sandusky Branch of The Broadview Savings and Loan Company, Cleveland, Ohio, a non-FDIC-insured institution.

The Board further determined, by the same majority vote, that no earlier notice of these changes in the subject matter of the meeting was practicable.

Dated: July 30, 1986.

Federal Deposit Insurance Corporation.

Margaret M. Olsen,

Deputy Executive Secretary.

[FR Doc. 86–17530 Filed 7–31–86; 11:09 am]

BILLING CODE 6714–01–M

7

FEDERAL DEPOSIT INSURANCE CORPORATION

Changes in Subject Matter of Agency Meeting

Pursuant to the provisions of subsections (e)(2) of the "Government in the Sunshine Act" (5 U.S.C. 552b(e)(2)), notice is hereby given that at its closed meeting held at 2:30 p.m. Tuesday, July 29, 1986, the Corporation's Board of Directors determined, on motion of Chairman L. William Seidman, seconded by Director C.C. Hope, Jr. (Appointive), concurred in by Mr. Robert J. Herrmann, acting in the place and stead of Director Robert L. Clarke (Comptroller of the Currency), that Corporation business required the addition to the agenda for consideration at the meeting, on less than seven days' notice to the public, of the following matters:

Recommendations regarding the Corporation's assistance agreements with insured banks.

Memorandum regarding the Corporation's payroll and personnel system.

The Board further determined, by the same majority vote, that no earlier notice of these changes in the subject matter of the meeting was practicable; that the public interest did not require consideration of the matters in a meeting open to public observation; and that the matters could be considered in a closed meeting by autthority of subsections (c)(2), (c)(4), (c)(6), (c)(8), and (c)(9)(A)(ii) of the "Government in the Sunshine Act" (5 U.S.C. 552b(c)(2), (c)(4), (c)(6), (c)(8), and (c)(9)(A)(ii)).

Dated: July 30, 1986.

Federal Deposit Insurance Corporation.

Margaret M. Olsen,

Deputy Executive Secretary.

[FR Doc. 86-17531 Filed 7-31-86; 11:10 am]

BILLING CODE 6714-01-M

8

TENNESSEE VALLEY AUTHORITY

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: 51 FR 144 (July 28, 1986).

PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING: 9:30 a.m. (edt), Wednesday, July 30, 1986.

PREVIOUSLY ANNOUNCED PLACE OF MEETING: TVA West Tower Auditorium, 400 West Summit Hill Drive, Knoxville, Tennessee.

STATUS: Open.

ADDITIONAL MATTERS: The following items are added to the previously announced agenda:

Old Business Items

3. Supplement No. 1 to personal services Contract No. TV-67471A with Management Analysis Company, San Diego, California, requested by the Office of Nuclear Power, which provides for termination of the contract effective July 25, a reduction in contract rates of approximately 28 percent below the original contract rates effective April 1, and an increase in the total contract amount from $970,000 to $1,600,000 to cover additional costs incurred at TVA's request.

New Business Items

D. Personnel Items

1. Employee Loan Agreement with Management Analysis Company (Contract No. TV-69288A) for the services of two individuals to assume Office of Nuclear Power line management postions as loaned employees at a total cost of $500,000, effective January 1, 1986, and terminating December 31, 1986, requested by the Office of Nuclear Power.

2. Supplement to personal services Contract No. TV-68729A with EQE Incorporated, San Francisco, California, covering arrangements for seismic evaluations at Browns Ferry and Sequoyah Nuclear Plants, requested by Office of Nuclear Power.

CONTACT PERSON FOR MORE INFORMATION: Craven H. Crowell, Jr., Director of Information, or a member of his staff can respond to requests for information about this meeting. Call 615-632-8000, Knoxville, Tennessee. Information is also available at TVA's Washington Office, 202-245-0101.

SUPPLEMENTARY INFORMATION:

TVA Board Action

The TVA Board of Directors has found, the public interest not requiring otherwise, that TVA business requires the subject matter of this meeting be changed to include the additional items shown above and that no earlier announcement of this change was possible.

The members of the TVA Board voted to approve the above findings and their approvals are recorded below:

Dated: July 30, 1986.

Approved.

C.H. Dean, Jr.,

Director and Chairman.

John B. Waters,

Director.

[FR Doc. 86-17519 Filed 7-31-86; 9:32 am]

BILLING CODE 8120-01-M

Federal Register

Monday
August 4, 1986

Part II

Environmental Protection Agency

40 CFR Part 61

National Emission Standards for Hazardous Air Pollutants; Standards for Inorganic Arsenic; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 61

[AD-FRL-2779-3]

National Emission Standards For Hazardous Air Pollutants; Standards For Inorganic Arsenic

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: On June 5, 1980, EPA listed inorganic arsenic as a hazardous air pollutant under section 112 of the Clean Air Act (48 FR 37886). Standards were subsequently proposed for inorganic arsenic emissions from high-arsenic primary copper smelters, low-arsenic primary copper smelters, and glass manufacturing plants on July 20, 1983 (48 FR 33112). Additional control measures for high-arsenic primary copper smelters and associated arsenic plants were proposed in a December 16, 1983, **Federal Register** notice (48 FR 55880) and additional control options for glass manufacturing plants were proposed in a March 20, 1984, **Federal Register** notice (49 FR 10278). This **Federal Register** notice reaffirms the Administrator's decision that inorganic arsenic is a hazardous air pollutant and responds to comments on and promulgates standards for inorganic arsenic emissions from primary copper smelters, glass manufacturing plants, and arsenic plants.

Six other categories of sources emitting inorganic arsenic were also identified and discussed in the July 20, 1983, **Federal Register** notice: primary lead smelters, secondary lead smelters, primary zinc smelters, zinc oxide plants, cotton gins, and arsenic chemical manufacturing plants. This **Federal Register** notice responds to comments on the decision that standards for these sources were not warranted and reaffirms the Administrator's decision not to regulate these sources.

EFFECTIVE DATE: August 4, 1986. Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia circuit within 60 days of today's publication of this notice. Under section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

ADDRESSES: *Background Information Documents.* The background information documents (BID's) may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please specify:

EPA-450/3-83-010b Inorganic Arsenic Emissions from Primary Copper Smelters and Arsenic Plants—Background Information for Promulgated Standards.

EPA-450/3-83-011b Inorganic Arsenic Emissions From Glass Manufacturing Plants—Background Information for Promulgated Standards.

EPA-450/5-85-001 Inorganic Arsenic NESHAP: Responses to Public Comments on Health, Risk Assessment, and Risk Management.

EPA-450/5-85-002 Inorganic Arsenic Risk Assessment for Primary and Secondary Lead Smelters, Primary Zinc Smelters, Zinc Oxide Plants, Cotton Gins, and Arsenic Chemical Plants.

The BID's for the promulgated standards each contain: (1) A summary of all public comments on the proposed standard, including comments that are not discussed in this preamble, and EPA's responses to these comments; (2) a summary of changes to the standard since proposal; and (3) the final environmental impact statement (EIS), which summarizes the impacts of the standard.

For background information on the health effects and carcinogenicity of inorganic arsenic, please refer to "Health Assessment Document for Inorganic Arsenic," EPA-600/8-83-021F. This document also may be obtained at the above address.

Dockets. Dockets containing supporting information considered in developing the promulgated standards are available for public inspection and copying between 8:00 a.m. and 4:00 p.m. Monday through Friday, at EPA's Central Docket Section, West Tower Lobby, Gallery 1, Waterside Mall, 401 M Street, SW., Washington, DC 20460. A reasonable fee may be charged for copying. The following dockets are available.

- OAQPS-79-8 Listing of arsenic as a hazardous pollutant
- A-80-40 High-arsenic and low-arsenic copper smelters
- A-83-8 Glass manufacturing plants
- A-83-9 Secondary lead
- A-83-10 Cotton gins
- A-83-11 Zinc oxide plants
- A-83-23 Primary zinc, primary lead, arsenic chemical manufacturing.

FOR FURTHER INFORMATION CONTACT: For further information concerning the background technical information supporting the promulgated standards, contact Dr. James Crowder, Industrial Studies Branch, MD-13, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, telephone (919) 541-5601. For information on the regulation of inorganic arsenic emissions and the promulgated standards, contact Mr. Robert L. Ajax, Standards Development Branch, MD-13, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5578. For information concerning the listing of inorganic arsenic as a hazardous air pollutant, contact Mr. Robert Kellam, Pollutant Assessment Branch, MD-12, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, telephone (919) 541-5645.

SUPPLEMENTARY INFORMATION: The discussion of the promulgated standards and their basis and the decision not to regulate certain source categories is organized as follows:

I. Overview
  1. Background
  2. Basis for Promulgated Standards
  3. Summary of Standards and Actions
II. Risk Management Policy and General Health Issues
  1. Health Effects and Listing of Inorganic Arsenic
  2. Public Exposure and Health Risk Estimates
  3. Risk Management
III. Primary Copper Smelters
  1. Summary of Promulgated Standard
  2. Summary of Environmental, Health, Energy, and Economic Impacts
  3. Significant Changes Since Proposal
  4. Additional Analyses
  5. Basis for Standard
  6. Discussion of Comments
  7. Impacts of Reporting and Recordkeeping Requirements
IV. Glass Manufacturing Plants
  1. Summary of Promulgated Standard
  2. Summary of Environmental, Health, Energy, and Economic Impacts
  3. Significant Changes Since Proposal
  4. Additional Analyses
  5. Basis for Standard
  6. Discussion of Comments
  7. Impacts of Reporting and Recordkeeping Requirements
V. Arsenic Trioxide and Metallic Arsenic Production Facilities
  1. Summary of Promulgated Standard
  2. Summary of Environmental, Health, Energy, and Economic Impacts
  3. Significant Changes Since Proposal
  4. Additional Analyses
  5. Basis for Standard
  6. Discussion of Comments
  7. Impacts of Reporting and Recordkeeping Requirements
VI. Negative Determinations
  1. Summary of Decisions
  2. Significant Changes Since Proposal
  3. Additional Analyses

4. Basis for Decisions
5. Discussion of Comments
VII. Miscellaneous
1. Docket
2. Reporting and Recordkeeping
3. Executive Order 12291
4. Regulatory Flexibility Analysis
5. Regulatory Flexibility Act Certification

The Overview section presents a brief summary of the basis for the standards and a summary of the standards, while the sections on the standards present more detailed discussions. The discussion of the risk management policy and health issues presented in the second part of this preamble is limited to issues generally applicable to the actions. Policy and health issues specific to individual source categories are presented as part of the specific discussion on the standard.

I. Overview

Background

In 1977, Congress amended the Clean Air Act (the Act) to address airborne emissions of arsenic. Section 122 of the Act required the Administrator of EPA to determine whether or not emissions of arsenic into the ambient air will cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health. On June 5, 1980, EPA published a **Federal Register** notice listing inorganic arsenic as a hazardous air pollutant under section 112 of the Act (44 FR 37886).

Concurrent with the decision to list inorganic arsenic as a hazardous air pollutant, EPA began a series of studies of the sources of inorganic arsenic emissions. The purpose of the earliest studies in the series was to identify which types of sources merited more detailed study toward possible regulation, and the purpose of the final studies in the series was to develop the detailed information needed to support the proposal of standards. The EPA Administrator was sued by the State of New York, and was subsequently ordered on January 12, 1983, by the United States District Court for the Southern District of New York, to publish proposed emission standards for inorganic arsenic by July 11, 1983, *New York* v. *Gorsuch*, 554 F. Supp. 1060, 1066 (S.D.N.Y. 1983).

On July 11, 1983, EPA proposed standards (48 FR 33112, July 20, 1983) for inorganic arsenic emissions from the following source categories: High-arsenic primary copper smelters, low-arsenic primary copper smelters, and glass manufacturing plants. The EPA also identified other categories of sources which emitted inorganic arsenic; but, after careful study, determined that proposal of standards for these source categories was not warranted. These sources are primary lead smelters, secondary lead smelters, primary zinc smelters, zinc oxide plants, cotton gins, and arsenic chemical manufacturing plants. During the consideration of public comments on the proposed actions, new information on emissions and costs as well as new regulatory approaches were published for public comment. Specifically, on December 16, 1983, EPA proposed in the **Federal Register** (48 FR 55880) for comment additional controls for fugitive emission sources at high-arsenic primary copper smelters and any associated arsenic plant. The comment period for the proposed standard on glass manufacturing plants was reopened on March 20, 1984, (49 FR 10278) to take public comment on proposed options for controlling emissions from furnaces producing soda-lime glass and the method for calculating zero production offsets. On September 20, 1984, the public comment period was reopened to take comments on the revised cost and emission estimates for low-arsenic primary copper smelters (49 FR 36877). The public comment period on this last **Federal Register** notice closed on November 5, 1984.

At the time of proposal, the standard proposed for high-arsenic primary copper smelters affected only the smelter owned and operated by ASARCO, Incorporated, located in Tacoma, Washington. On June 27, 1984, ASARCO announced plans to close its primary copper smelting operations at Tacoma, Washington, by June 30, 1985; and subsequently ceased copper smelting operations at Tacoma. Because of ASARCO's action, EPA is withholding further action on the proposed standard for existing high-arsenic primary copper smelters. The EPA will continue to monitor ASARCO's actions and will reconsider the need for a separate standard applicable to existing high-arsenic smelters if there is evidence that ASARCO-Tacoma will resume copper smelting operations. However, even in the absence of a specific high-arsenic smelter standard, the standard being promulgated today would apply to the Tacoma smelter if copper smelting operations were to resume. Today's standard is applicable to all existing and any new primary copper smelters.

In the announcement of closure of the primary copper smelter at Tacoma, ASARCO also stated that it will continue to operate the arsenic trioxide and metallic arsenic plants at the site. ASARCO also indicated that the operations at the arsenic plants would be modified to reduce emissions significantly, but the actual configuration of the facilities was not specified. Therefore, EPA is promulgating the proposed standard for fugitive emission sources at arsenic plants. This standard is being established as Subpart P. The only existing arsenic plant is the ASARCO arsenic plant at Tacoma, Washington.

Public Participation

To provide interested persons an opportunity to comment on the proposed standards, public hearings were held on November 2, 3, and 4, 1983, in Tacoma, Washington, and on November 8, 1983, in Washington, DC. Both hearings were open to the public, and each attendee was given an opportunity to comment on the proposed standards and the negative determinations. During the various public comment periods, about 800 letters were received on the proposed standards for high-and low-arsenic primary copper smelters, 24 letters were received on the proposed standard for glass plants, and 11 letters were received on the listing of inorganic arsenic and the negative determinations. Most of the commenters made multiple comments, and many repeated comments made in other letters or by other commenters. All comments were carefully considered and, where determined to be appropriate by EPA, have served as the basis for changes made to the proposed standards. (Comments received on the proposed standard for high-arsenic primary copper smelters that are also pertinent to the proposed standard for low-arsenic smelters were considered in the development of the final standard for primary copper smelters.) Major comments and EPA's consideration of the issues presented for each standard are discussed in the appropriate section of this preamble. Additional comments and the detailed analyses conducted for responses to some issues are presented in the BID's for the promulgated standards (see Addresses section). All commenters on the proposed standards are identified in the appropriate BID's.

Basis For Promulgated Standards

Risk Management Approach

For carcinogenic hazardous pollutants, including inorganic arsenic, health effects thresholds have not been clearly demonstrated and, in the view of a number of researchers, may not exist. The absence of identifiable thresholds suggests that for carcinogens any level of control short of an absolute ban on emissions may pose finite health risks. For many of the substances considered

for regulation under section 112, such a ban would produce severe economic disruption if not closure of the emitting industries.

Section 112 of the Act requires EPA to establish emission standards for hazardous air pollutants that protect public health with an "ample margin of safety." In interpreting this language for the purposes of regulatory development, EPA does not believe that the word "safety" implies a total absence of risk. Many activities involve some risk, but are not considered "unsafe." In the Administrator's view, standards under section 112 should protect against significant public health risks. See *Industrial Union Department, AFL–CIO* v. *American Petroleum Institute*, 448 U.S 607, 642 (1980); *Ethyl Corp.* v. *EPA*, 541 F. 2d 1 (D.C. Cir. 1976), *cert. den.* 426 U.S. 941 (1976); H.R. Rep. No. 95–294, 95th Congress, 1st Sess. 43–51 (1977).

In establishing an appropriate level of control for carcinogens, the Administrator views the objective as a judgment of the extent to which the estimated health risks must be reduced before the degree of control can be considered amply protective. Two choices are available: either the emission standards must be set at zero to eliminate the attributable health risks or some residual risk must be permitted. In the absence of specific direction on this choice in section 112 and in recognition of the drastic economic consequences that could follow a requirement to eliminate all risk from hazardous pollutant emissions, the EPA believes that it is not the intent of this section to eliminate totally all risks and that section 112 standards which permit some level of residual risk can be considered to provide an ample margin of safety to protect public health.

The EPA's strategy for risk management under section 112 first provides for the identification of source categories that may pose significant risks to public health as a result of air emissions. Next, the Agency performs an assessment of candidate source categories to evaluate current control levels and associated health risks, future or ongoing emissions reductions from other regulatory activities (e.g., State Implementation Plans (SIP's) and Occupational Safety and Health Administration [OSHA] standards), the availability of more stringent options such as further controls or process modifications, and the costs and economic impacts associated with each option. Based on this assessment, the Administrator selects a level of control which, in his judgment, reduces the health risks to the greatest extent that can reasonably be expected after considering the uncertainties in the analysis, the residual risks remaining after the application of the selected control level, the costs of further control, and the societal and other environmental impacts of the regulation. In the consideration of the factors, no one factor is consistently overriding and the deciding factor will vary among source categories. In summary, there is no rigid formula to decide whether to regulate a source category or decide the appropriate level of control; rather, a more flexible approach is used to weigh the effects of regulation in a given situation. The Administrator believes that this flexibility is necessary to establish the appropriate level of control.

Risk Assessment Methodology

In reaching a decision on the ample margin of safety required by section 112 of the Act, the Administrator considers the nature and relative magnitude of the health hazards posed by the pollutant in question. The EPA has estimated public health risks as a result of population exposure to inorganic arsenic emissions from a number of source categories. Although uncertainties are associated with the data and the estimating procedure, the Administrator believes that these quantitative expressions of risk serve a purpose as a health-based measurement tool facilitating comparison of pollutants, sources, and emission controls, and that when used appropriately, such quantitative expressions of risk play an important role in decisionmaking.

In developing the exposure/risk relationship for inorganic arsenic, EPA has assumed that a linear, nonthreshold model appropriately describes the relationship between inorganic arsenic exposure and the risk of contracting lung cancer. This relationship, calculated from studies of occupationally exposed workers who have been subjected to relatively high exposures, is also assumed to describe mathematically the exposure/risk relationship at lower levels more characteristic of public exposure. The nonthreshold assumption implies that any nonzero exposure to inorganic arsenic poses some finite cancer risk. As described more fully in Part II, Risk Management Policy and General Health Issues, of this preamble, EPA has concluded that the assumptions of linearity and the absence of thresholds are reasonable and prudent for the protection of public health in light of presently available information.

The numerical constant that defines the exposure/risk relationship used by EPA in the linear, nonthreshold model is called the unit risk factor. The unit risk factor for an air pollutant is defined as the excess cancer risk associated with a lifetime of exposure (70 years) to an average concentration of 1 microgram per cubic meter (1 $\mu g/m^3$) of the pollutant in the air. For inorganic arsenic, the unit risk estimate is based on EPA's analysis of five sets of the latest smelter worker epidemiological data collected by four researchers at two smelters. Based on this analysis, EPA has revised the unit risk estimate used in the proposed regulations from 0.00295 to 0.00429 per $\mu g/m^3$, a 40-percent increase. The linear nonthreshold risk extrapolation model is believed to produce plausible upper-bound estimates of risk since other plausible risk models give lower risk estimates. When the projected lifetime public exposure to inorganic arsenic approaches 1 $\mu g/m^3$, the public exposure also approaches the range of occupational exposure as measured by some epidemiological studies. In this high range of exposure, the difference between models is less and the risk estimate is more accurate. At lower levels of inorganic arsenic concentrations where most of the public exposure occurs, the Agency believes that the risk model generally produces upper-bound but plausible risk estimates, if the exposure is accurately known.

The unit risk factor is one of two elements required in the estimation of public health risks. The second required element is the estimation of public exposure, i.e., the number of people exposed and the concentrations of inorganic arsenic to which they are exposed. To estimate public exposure, EPA uses computer models that calculate: (1) Nearby ambient concentration profiles that occur due to the source's emissions, and (2) the location and number of people exposed to the arsenic concentrations. Arsenic concentration profiles are estimated through the use of atmospheric dispersion models. Plants are located by latitude and longitude, and then estimated or measured emissions data are supplied along with other plant parameters and local prevailing weather patterns as inputs to the computer model to estimate ambient air concentrations within a specified distance from the source. When data are available and where feasible, the Agency compares the predicted concentrations to the measured concentrations, and adjustments are made in the exposure estimates to reflect more closely the measured

concentrations. The number and location of people exposed are derived from 1980 census data broken down into clusters called individual block group and enumeration districts that are located within the assessment area.

By combining the population data with predicted concentrations, the computer model estimates exposure at selected distances from the source and sums the exposure estimates. As used in this notice, the term "exposure" refers to the product of the estimated ambient air concentration of inorganic arsenic and the estimated number of people exposed to that concentration. Exposure is expressed in units of "people-$\mu g/m^3$."

The modeled concentrations and exposure estimates are combined to produce two measures of health risk: "annual incidence" and "maximum lifetime risk." "Annual incidence" represents the aggregate number of cancer cases that may occur in the population residing within a specified distance from plant or plants. This risk reflects the average number of cases that would be expected each year in the exposed population based on predicted exposure. "Maximum lifetime risk" represents the probability of contracting cancer for those individuals assumed to be exposed for a lifetime to the highest measured or predicted average concentration.

Due to the highly complex interactions between individuals and airborne arsenic, EPA has made a number of simplifying assumptions in estimating inorganic arsenic health risks. Major assumptions of the exposure model are that individuals remain in the vicinity of their residences for a lifetime, are exposed for that period to the predicted concentrations, and are equally as susceptible to contracting cancer as occupationally exposed individuals. Also, site-specific factors such as the plant's emissions are, for calculation purposes, assumed to remain constant over a lifetime. In addition, two simplifying assumptions generally have been used in the air dispersion modeling analysis: That the readily available meteorological data at the site nearest the plant are representative of the local meteorology and that the terrain surrounding the plant is relatively flat.

There are also numerous uncertainties in the analysis. For example, scientific uncertainties not resolved to date include the amount of overestimation of the true risk in the use of the linear nonthreshold model in extrapolating from high-dose occupational exposure to low-dose public exposure at ambient air concentrations. There also is uncertainty with exposure estimates because of difficulty in obtaining precise data on emission rates; atmospheric dispersion patterns and population concentrations around individual sources; and lack of information on short-term and long-term movement (migration) of people and indoor versus outdoor toxic air pollutant concentration patterns. Finally, there are uncertainties concerning possible additive effects of multiple sources or pollutants, synergistic or antagonistic health effects, and heightened susceptibilities to some cancers by some population groups.

In view of this, EPA took a number of actions. Where better data were available and more detailed study was feasible, EPA performed a limited number of more sophisticated site-specific air dispersion analyses that consider local meteorology and terrain features. Also, EPA used measured ambient arsenic data to confirm the concentration profiles predicted by the air dispersion analysis and reviewed community epidemiology studies to check the risk assessment projections.

The Administrator has considered the uncertainties of the analysis and the risk assessment methodology and has concluded that the calculated risks for inorganic arsenic exposure represent the best estimates of the actual health risks that the Agency can generate within the available resources.

Summary of Standards and Actions

Primary Copper Smelters

The standard applies to all existing and new primary copper smelters. The standard requires monitoring, recordkeeping, and reporting of the average annual inorganic arsenic feed rate to converters. For all affected primary copper smelters with average annual arsenic feed rates to the converters greater than 75 kilograms per hour (kg/h) (164 pounds/h [lb/h]), the standard requires capture and collection of secondary inorganic arsenic emissions from converters. The standard is expressed in terms of equipment and design specifications and work practices for the capture system and a maximum allowable particulate emission limit for the control device. The required equipment consists of a secondary hood system, the principal components of which are a hood enclosure, a horizontal air curtain, fans, and auxiliary equipment. The standard limits emissions from the control device to 11.6 milligrams of particulate per dry standard cubic meter of exhaust gas (mg/dscm) (0.005 grains per dry standard cubic foot of exhaust gas [gr/dscf]).

Compliance with the particulate matter emission limit will be determined using EPA Reference Method 5. The average annual arsenic charging rate to the converters will be determined using monthly average weight percent arsenic in feed materials and the charging rates. The weight percent arsenic in feed materials will be determined using Method 108A. Continuous monitoring of the opacity of gases exiting the control device and of the airflow through the converter secondary hood is required to ensure proper operation and maintenance of the system. The reporting requirements of the standard include: (1) Annual reports of average inorganic arsenic charging rate to the converters; (2) quarterly reports of airflows less than 80 percent of the reference flow rate; and (3) quarterly reports of excess opacity levels.

Glass Manufacturing Plants

The standard applies to each glass manufacturing furnace that uses commercial arsenic as a raw material. The standard for existing glass manufacturing furnaces requires the owner or operator to either: (1) Limit uncontrolled arsenic emissions to 2.5 megagrams (Mg) (2.75 tons) per year, or less, or (2) reduce total arsenic emissions by 85 percent. New or modified glass furnaces must keep uncontrolled arsenic emissions below 0.4 Mg (0.44 tons) per year or reduce emissions by 85 percent.

Compliance with the emission limit will be determined using Method 108 unless the furnace is exempted. Existing furnaces are exempt from the emission test requirement if less than 8.0 Mg (8.8 tons) of arsenic is added to the furnace annually, and new or modified furnaces are exempt if less than 1.0 Mg (1.1 tons) of arsenic is added annually; and the owner or operator can demonstrate through a material balance that the applicable emission limit is being met. The standard also requires continuous monitoring of the temperature of the gas entering the control device and of the opacity of the gas discharged to the atmosphere from the control device. The reporting requirements of the standard include: (1) Semiannual reports of occurrences of excess opacity at facilities subject to the 85 percent reduction emission limit, and (2) semiannual reports of occurrences of uncontrolled emission rates greater than 2.5 Mg (2.75 tons) per year at existing furnaces and greater than 0.4 Mg (0.44 tons) per year at new or modified furnaces at facilities subject to those limits.

Arsenic Trioxide and Metallic Arsenic Plants

The standard applies to facilities recovering arsenic trioxide from low grade arsenic bearing materials by a roasting-condensation process and to metallic arsenic plants. The standard requires the owner or operator to develop a detailed inspection, maintenance, and housekeeping plan that will be used to minimize fugitive emissions; to take steps to minimize emissions during malfunctions and upsets; and to monitor ambient concentrations of inorganic arsenic near the plants.

Compliance with the standard will be determined by the development of an approvable plan and implementation of that plan. Continuous monitoring of the opacity of gases exiting from the control device is required to ensure proper operation and maintenance of the control device. The regulation also requires continued operation and maintenance of existing ambient monitoring systems for arsenic in the vicinity of the arsenic plants. Reporting requirements of the standard include: (1) Quarterly reports of occurrences of excess opacity; (2) quarterly reports of ambient concentrations of arsenic monitored near the facility; and (3) semiannual reports on pilot plant studies on alternative arsenic trioxide production technologies.

Negative Determinations

At proposal, EPA identified several inorganic arsenic source categories for which standards were not warranted. After consideration of public comments on these negative determinations, the Administrator is reaffirming his decision not to regulate these sources at this time. The primary reasons for this decision are that the estimated health risks are small; and additional emission reduction either can be achieved only through closure or will impose control costs that are likely to result in closure, or are excessive compared to any small possible health benefit that might result.

II. Risk Management Policy and General Health Issues

This part of the preamble presents a discussion of comments on health effects of inorganic arsenic and the risk management policy that apply to all categories considered in the July 20, 1983, notice. Health and risk issues that pertain only to one source category are presented in the discussion on the specific source category.

Health Effects and the Listing of Inorganic Arsenic

A fundamental element in this rulemaking is the Administrator's conclusion that inorganic arsenic is a hazardous air pollutant and the decision on June 5, 1980, to list inorganic arsenic under section 112 of the Act (45 FR 37885). After a substance is listed as a hazardous air pollutant, section 112 requires the Administrator to subject the listing decision to public review following the proposal of the emission standards to determine if "such pollutant is clearly not a hazardous air pollutant" (section 112(b)(1)(B)). Thus, in the July 20, 1983, proposal the Agency specifically requested comments on the listing decision and the Administrator's judgment that inorganic arsenic is a hazardous air pollutant. Of those who responded to this request, the majority of commenters expressed support for EPA's decision to list inorganic arsenic as a hazardous air pollutant and to require standards to protect public health. However, there were a number of commenters who disagreed with the listing decision. Most of their arguments fell into the following two categories.

One group of commenters called for the Administrator to act under section 112 only when there is an absolute certainty that inorganic arsenic is a human carcinogen and when there is a clear association between inorganic arsenic emissions and lung cancer. For instance, these commenters noted that inorganic arsenic is not a proven animal carcinogen, and in fact, low levels of inorganic arsenic appear to be a nutritional requirement for certain animals. Also, several commenters stated that the mutagenic potency of inorganic arsenic is weak or negligible when compared to other known metal mutagens and that this, therefore, casts some doubt on inorganic arsenic being classified as a human carcinogen. There also were flaws, a few commenters said, in the occupational studies on which EPA's listing decision was based.

Another set of commenters felt that a reasonable link had been established between the high levels of inorganic arsenic exposure and increased lung cancer rates. But, they pointed out that certain studies, such as those of Higgins, *et al.*, indicate the existence of a cancer threshold, i.e., a certain level of inorganic arsenic exposure below which no carcinogenic effect was observed in those exposed. Furthermore, they noted that the apparent inorganic arsenic threshold level (as suggested by Higgins, *et al.*) is well above the measured or estimated public exposure levels near any of the inorganic arsenic sources. Also referenced by these commenters were several community studies, such as Frost, *et al.*, that did not detect any increases of lung cancer in the community near the ASARCO primary copper smelter in Tacoma, Washington. These commenters agreed with the Administrator's finding that there is a high probability that inorganic arsenic is carcinogenic to humans at high levels of exposure, but they felt that there are either no risks or insignificant risks associated with the lower levels of public exposure to inorganic arsenic emissions.

The Administrator stated at the time of proposal, and many commenters agreed, that there are uncertainties in the health data base and EPA's risk assessment and that a significant public health risk in the general community has not been absolutely proven. But, neither the Act nor prudent public health protection policy requires absolute proof of health risks before the Agency invokes its authority to act under section 112.

When the decision to propose inorganic arsenic standards was made, the Administrator was aware, via an extensively updated draft document entitled "Health Assessment Document for Inorganic Arsenic" (EPA–600/8–83–021), of the issues and the data subsequently presented by many of the dissenting commenters. This draft document presented, on balance, a strong case for inorganic arsenic being a human carcinogen. In September 1983, the Science Advisory Board (SAB), an advisory group of nationally prominent scientists from outside EPA, reviewed the document in a public meeting. The SAB subsequently concurred with the report's conclusion that the weight of evidence places inorganic arsenic in a group of pollutants that are characterized as "carcinogenic to humans." This conclusion is based on two general observations. First, associations between cancer and inorganic arsenic exposure have been demonstrated in several different occupational settings, such as copper smelters, pesticide manufacturing, and agricultural work, and in nonoccupational populations using arsenical drugs on consuming arsenic-contaminated drinking water and/or food. Second, the results from several human studies have consistently demonstrated the same study findings, that is, the same high relative risks, and specificity of tumor sites (skin and lungs). The EPA has now published these conclusions in the final health document (EPA–600/8–83–021F), which can be obtained from EPA at the

address given in the Addresses section of this preamble.

Others have made similar findings regarding inorganic arsenic's carcinogenicity. Widely respected scientific groups such as the National Cancer Institute (NCI), the National Academy of Sciences (NAS), and the International Agency for Research on Cancer (IARC) have concluded that there is sufficient evidence to conclude that inorganic arsenic is carcinogenic to humans. In addition, the OSHA also recently reviewed the substantial body of evidence and concluded that inorganic arsenic "is clearly a human carcinogen" (43 FR 19584).

The EPA health document indicates that consistent demonstration of inorganic arsenic as an animal carcinogen, using different chemical forms, routes of exposure, and various experimental species, has not been observed. However, recent data indicate that lung tumorigenicity and possibly carcinogenicity can be demonstrated in animals if the retention of inorganic arsenic in the lung is increased. The additional observations reported from two laboratories that calcium arsenate is only slowly cleared from the lung suggest that this agent may be carcinogenic. Upon review of the available data and the public comments, the Administrator has concluded that the data do not clearly demonstrate the lack of carcinogenicity of inorganic arsenic in animals.

The possible nutritional value of inorganic arsenic was mentioned by commenters in support of the idea that at low levels inorganic arsenic is beneficial to humans. That inorganic arsenic appears to be an essential element in small quantities in certain animal species is based on a number of detrimental effects noted by several researchers when administering arsenic-deprived diets to rats, goats, chicks, and guinea pigs. However, EPA's review of the literature and the public comments found no data which support the view that inorganic arsenic is beneficial to such animals when inhaled or deposited in the trachea, and EPA is unaware of any data that demonstrate the essentiality of inorganic arsenic in man.

Many researchers have noted that a number of probable carcinogens have also been shown to be probable mutagens as well, and have linked the two responses together. Commenters, in applying this association in reverse, pointed to inorganic arsenic's weakness in producing mutagenic responses in numerous test systems as supporting a conclusion that inorganic arsenic is not carcinogenic. The EPA's final health assessment document points out that various inorganic compounds of arsenic have been tested for mutagenicity in a variety of systems ranging in complexity from bacteria to lymphocytes in the blood of exposed human beings. Although much of the data are contradictory, the weight of evidence supports the following conclusions:

1. Arsenic is either inactive or extremely weak for the induction of gene mutations in cell cultures.

2. Arsenic causes chromosomal breakage and induces sister chromatid exchanges, an indicator of chromosomal damage, in a variety of cell types, including human cell cultures.

3. Arsenic does not appear to induce chromosome aberrations in experimental animals (one available study).

4. Several studies suggest that human beings exposed to arsenic demonstrate higher frequencies of sister chromatid exchanges and chromosomal aberrations in blood lymphocytes; however, the quality of these studies is generally poor.

5. Arsenic may affect DNA by the inhibition of DNA repair processes or by its occasional substitution for phosphorus in the DNA structure.

Although the data do not present a clear picture, inorganic arsenic may be a weak or inactive gene mutagen with the potential to cause chromosomal changes in human beings. The Administrator cannot conclude, based on the available data, that inorganic arsenic is clearly a nonmutagen in humans, as some commenters have suggested.

The information the commenters have presented is indirect evidence for the case of inorganic arsenic not being a human carcinogen, and when closely studied is inconclusive as evidence to refute the Administrator's findings. On the other hand, a number of independent occupational studies provide direct evidence of inorganic arsenic's carcinogenicity in humans. As commenters pointed out, each study contains flaws and EPA carefully reviewed the comments regarding those flaws. But, the collective documentation in the human health data base, which demonstrates in several different occupational settings the same study findings, the same high relative risks, and the same specificity of tumor sites, overwhelms the flaws in each individual occupational study and the inconclusive, indirect data from the animal studies. On balance, the Administrator concludes, after reviewing the public comments and the available data, that inorganic arsenic is a human carcinogen.

The second set of commenters, although agreeing with the Administrator's findings regarding the carcinogenicity of inorganic arsenic, questioned the assumption that inorganic arsenic poses some finite lung cancer risk at low levels of exposure. They felt that several scientific studies had shown that there was a threshold or level of exposure below which increased cancer risks are nonexistent. The EPA recognized at the time of listing that epidemiological studies had not proven that exposure to inorganic arsenic at ambient levels causes cancers. Epidemiological methods that have successfully revealed associations between occupational exposure and cancer for inorganic arsenic are not as easily applied to the public sector, with its increased number of confounding variables, much more diverse and mobile exposed population, lack of consolidated medical records, much lower exposures, and almost total absence of historical exposure data. Given the above characteristics, EPA considers it improbable that any community epidemiological association with arsenic exposure, short of very large increases in cancer or very unusual pathology, can be detected with any reasonable certainty. The NAS noted that in considering the possibility of thresholds for carcinogenesis, it is important to understand that there is no agent, chemical or physical, that induces a form of cancer in man that does not occur in the absence of that agent. In other words.

> . . . . when there is exposure to a material, we are not starting at an origin of zero cancers. Nor are we starting at an origin of zero carcinogenic agents in our environment. Thus, it is likely that any carcinogenic agent added to the environment will act by a particular mechanism on a particular cell population that is already being acted on by the same mechanism to induce cancer.

In discussing experimental dose-response curves, the NAS observed that most information on carcinogenesis is derived from studies on ionizing radiation with experimental animals and with humans, which indicate a linear, nonthreshold dose-response relationship at low doses. They added that although some evidence exists for thresholds in some animal tissues, by and large thresholds have not been established for most tissues. The NAS concluded that establishing such low-dose thresholds would require large-scale experiments and recognized that the U.S. population is a genetically heterogeneous group exposed to a large variety of toxic agents. This fact, coupled with the known genetic variability to carcinogenesis and the predisposition of some individuals to some form of cancer, makes it extremely

difficult, if not impossible, to identify a threshold.

For these reasons, EPA has taken the position, shared by other Federal regulatory agencies, that in the absence of sound scientific evidence to the contrary, carcinogens should be considered to pose some cancer risk at any exposure level. This nonthreshold assumption is based on the view that as little as one molecule of a carcinogenic substance may be sufficient to transform a normal cell into a cancer cell. Evidence is available from both the human and animal health literature that cancers may arise from a single transformed cell. Mutation research with ionizing radiation in cell cultures indicates that such a transformation can occur as the result of interaction with as little as a single cluster of ion pairs. In reviewing the available data and the public comments regarding carcinogenicity, EPA found no compelling scientific reason to abandon the nonthreshold presumption for inorganic arsenic.

In support for the existence of an inorganic arsenic threshold, several commenters cited community studies that did not demonstrate a link between increased lung cancer risks and arsenic exposure. For instance, Dr. Frost of the Washington State Department of Social and Health Services (DSHS) forwarded to EPA a recently completed community study that provided new data on women who have died in Pierce County from 1935 through 1969. The Frost, *et al.*, analysis showed that all three study areas near the ASARCO primary copper smelter in Tacoma, Washington had mortality rates that were slightly less than the U.S. white-female lung cancer rates, even though these women were living near a very large inorganic arsenic source in the U.S. Unfortunately, this kind of study cannot directly quantify the female lung cancer rates for people who had lived in the study areas without inorganic arsenic exposure (i.e., there is no control group) and, therefore, such studies do not provide a clear demonstration of the absence of increased cancer risks in an exposed population in relation to a similar but unexposed population. However, the Frost, *et al.*, study does provide an indication that the ASARCO emissions have not been causing an epidemic of lung cancers in the communities surrounding the smelter and that EPA has not grossly underestimated public risks.

Several other community studies with both "positive" and "negative" results were mentioned by commenters. Except for the Frost, *et al.*, study which was completed during the public comment period, many of these studies identified by the respondents were already mentioned in EPA's draft health assessment document and had been considered by the Agency. The following section provides a summary of the known community studies that consider arsenic exposure.

1. *Blot and Fraumeni, 1975* Lung cancer mortality was shown to be significantly higher among males and females in 36 U.S. counties with copper, lead, and zinc smelters and refineries than in the rest of the U.S. counties. The increase, corrected for demographic variables, was 17 percent for males and 15 percent for females over the years 1950–1969.

2. *Lyon, et al., 1977* Using a population based cancer registry, addresses at diagnosis of lung cancer cases were compared to malignant lymphoma controls to assess the possible carcinogenic effect of the Salt Lake City copper smelter. The distribution of distances from the smelter of lung cancer cases and lymphoma controls was similar.

3. *Rom, et al., 1982* Using the same methodology as Lyon, *et al.*, lung cancer cases around the El Paso, Texas, smelter were shown to have the same distance distribution from the smelter as breast and prostate cancer controls.

4. *Greaves, et al., 1981* Greaves, using the same methods as Lyon, *et al.* and Rom, *et al.*, studied the distances of residences at diagnosis, or death, of lung cancer cases and controls (prostate, colon, and breast cancers) from the ten primary copper smelters and one lead-zinc smelter. The distance distribution of lung cancer was not significantly different from the distribution of the control cancers in any of the areas studied.

5. *Pershagen, et al., 1977* Mortality in the region around the Ronnskar smelter in northern Sweden was studied. The population residing within 15 kilometers (km) (9 miles) of the smelter was compared to the population residing 200 km (124 miles) away. The lung cancer mortality in the exposed population (<15 km) was significantly different in comparison to national rates. When the occupationally exposed cases are removed, the lung cancer standard mortality ratio was reduced and was no longer statistically significantly different than the comparison population.

6. *Matinoski, et al., 1976* Cancer mortality reported on death certificates was studied in census tracts in Baltimore around a chemical plant producing calcium and lead arsenate, arsenic acid, cupric aceto-arsenite (Paris green), and sodium arsenite. An increase in lung cancer was seen in the census tract containing the plant in the years 1966–1974 in males only. No increase was seen in an earlier time period (1958–1962). Removing plant workers from the high lung cancer census tract did not eliminate the high male lung cancer mortality rate.

7. *Polissar, et al., 1979* Lung cancer mortality by census tract was examined around the Tacoma, Washington, copper smelter. The distance of the census tract from the smelter, and the concentration of sulfur dioxide over background for each census tract were used as a surrogate for arsenic exposure data. There was no excess risk of lung cancer for persons living near the smelter.

8. *Hartley, et al., 1982* Lung cancer mortality in the 35 census tracts in Tacoma, Washington, was examined for the 21 years 1950–1970, using the death certificate address for assignment to census tract. Lung cancer mortality was no higher in the census tracts near the smelter than in those farther away.

9. *Milham, et al., 1982* Class rosters of children enrolled at the Ruston elementary school (91m [100 yards] from the Tacoma, Washington, smelter) were examined. A cohort of 283 children who were enrolled for three or more years during the years 1900–1919 was developed. Surviving cohort members were contacted and death records were obtained for decedent members. Using life table comparisons, mortality of men in this cohort was shown to be favorable (more survivors to 1980 than expected). It also did not appear that lung cancer was increased in the male cohort (1 lung cancer death among 20 for whom death certificates were obtained). Forty percent of the men in this cohort were employed at the smelter at some time.

10. *Newman, et al., 1976* Although this was primarily a study of lung cancer cell type in two Montana copper mining and smelting counties, it demonstrated an increase in lung cancer incidence in both men and women in the towns of Butte and Anaconda, but the same increase was not seen in the counties as a whole.

In addition, there were a number of community morbidity studies referenced by commenters.

1. *Milham and Strong, 1974* In the population around the Tacoma smelter, children were shown to have increased levels of arsenic in hair and urine. Urinary arsenic decreased with distance from the smelter. Mean urinary arsenic for children living within 0.8 km (0.5) miles of the smelter was 0.30 ppm (parts per million) (normal 0.014). Vacuum

cleaner dust and attic dust contained over 1000 ppm of arsenic.

2. *Morse, et al., 1979* Children exposed to arsenic in air and drinking water in Ajo, Arizona, near a copper mine and smelter were studied. Hair and urinary arsenic were elevated in children and decreased with distance from the smelter. No clinical or hematologic abnormalities attributable to arsenic were found.

3. *Baker, et al., 1977* In 19 U.S. towns with primary nonferrous smelters, 1-to 5-year-old children were studied for arsenic, lead, and cadmium absorption. Urine arsenic was elevated near 10 of 11 copper smelters.

4. *Milham, 1977* Hearing, hematological status, and school attendance of children living in Ruston, Washington (near the Tacoma smelter), were the same as children living further away from the smelter. The Ruston children had increased levels of urinary and hair arsenic.

5. *Nordstrom, et al., 1978* Frequencies of congenital malformations were studied in offspring of female employees of the Ronnskar smelter and in the population living near the smelter. In the offspring of the employees, the frequency of multiple malformations was increased. However, there was no increase in total frequency of malformations or in type of malformations in the population around the smelter.

6. *Nordstrom, et al., 1978* Frequency of spontaneous abortion and birthweight distributions in female smelter employees and women who lived near the Ronnskar smelter were examined. Women working at the smelter had an increased frequency of spontaneous abortion and low birthweight infants. Women living near the smelter showed no increase in spontaneous abortions, but had a tendency to have infants slightly lighter than women who lived at a distance from the smelter.

Such community studies generally suffer from two shortcomings: They lack a well-defined control group and they lack the necessary statistical power to detect the predicted number of increased lung cancer cases.

A control group is a number of people who are not exposed to inorganic arsenic yet who live in the same or a similar area, have similar life styles, and are similarly exposed to other carcinogenic agents. National data indicate significantly different lung cancer rates between states and even cities; thus, the ideal control group would live in the same city or area, but would remain unexposed to arsenic. Obviously, such a group of any useful size does not exist.

The second shortcoming of community studies is that negative study results do not conclusively prove that there is no increased risk in the community due to exposure. The ability of a study to detect an excess risk that truly exists, or the probability of not missing a true excess risk, is quantified by a statistical parameter called "power." In a community epidemiological study, the research may not have the statistical power or be able to detect excesses in lung cancer rates when, in fact, such excesses are actually occurring. Key factors that determine the study's power are the number of expected lung cancer cases in the study group and the relative magnitude of the excess risk in relation to expected risk.

For inorganic arsenic, EPA's assessment estimated that the increase in lung cancer risk due to the inorganic arsenic source categories is for most of the exposed population a small fraction of the expected community lung cancer risk. Considering the above, it is not reasonable to expect the referenced community studies to detect the increased lung cancers predicted by the Agency.

In particular, the Nordstrom, *et al.*, studies were not designated specifically to study the effects of arsenic but rather to study the effects, in general, of the smelter works pollutants on neighboring populations; the diverse agents involved preclude making conclusive statements about the specific effects of inorganic arsenic. In 1981, the Swedish National Health Board Expert Committee published a report that discredited or questioned almost every finding that would be suitable for making determinations regarding the potential human reproductive effects caused by inorganic arsenic exposure.

These community studies have provided the Administrator with very little new information regarding the risks associated with inorganic arsenic emissions other than that increased cancer risks are not likely to be substantially greater than EPA's estimates and could be substantially less than estimated. Such studies also have not clearly proven the existence of an inorganic arsenic threshold.

The Administrator, upon review of the available data and the public comments, reaffirms his position stated in the proposal that inorganic arsenic emissions pose significant risks to the public health.

Public Exposure and Health Risk Estimates

A number of commenters were concerned that specific portions of the exposure and health risk models represented sources of uncertainty. A few commenters recommended that 1980 census data or recent maps of the areas near sources, rather than 1970 census data, be used to estimate the exposed populations. Also, EPA's simplifying assumption that individuals are exposed to the same arsenic concentration continuously over 70 years was questioned by several commenters.

Other commenters noted that EPA's models did not consider such factors as risks to sensitive subpopulations, exposure to arsenic at places other than a person's residence, and risks to people residing beyond 20 km (12 miles) from sources.

Another group of commenters questioned the usefulness of the quantitative exposure and risk model results in decisionmaking. For instance, several commenters expressed opinions about the degree of conservatism of the models. Most felt that EPA's risk estimates were overly conservative, representing an extreme worst-case estimate of risk. In particular, some thought the linear, nonthreshold model used to calculate risk from exposure estimates was too conservative, although a few supported use of this model. Others thought that the linear, nonthreshold model was moderate, and might underestimate health risk. Also, several commenters questioned the need for the Agency to use exposure and/or health risk models at all. Instead, they suggested that the Agency should use direct measurements of public health effects and lung cancer rates instead of mathematical models. Others suggested that urinary arsenic content or measured ambient arsenic concentrations rather than dispersion model estimates be used to estimate public exposure.

In the Overview—Basis for Promulgated Standards section of this preamble, EPA has briefly described the public exposure/risk methodology and a more detailed explanation can be found in each BID for the inorganic arsenic source categories (see **ADDRESSES** section of this preamble). Basically, there are four phases of the risk assessment process: (1) Emission and emission parameter estimation; (2) air quality dispersion modeling; (3) public exposure estimation; and (4) risk evaluation. The first two phases are discussed elsewhere in this notice, while the following discussion focuses on comments pertaining to the third and fourth phases.

Changes in the exposure estimation methodology (the third phase) were made in response to public comments and the Agency's desire to improve the model. At the time of proposal, EPA

used 1970 U.S. Census Bureau population data which EPA extrapolated to 1980 by using 1977 U.S. Census Bureau county growth factors. These population data have been replaced with 1980 U.S. Census Bureau population data recently made available to the Agency.

At proposal, exposure and risk were estimated for people residing within 20 km (12 miles) of a source. Some commenters pointed out that since people beyond 20 km are exposed to some level of arsenic due to the source emissions, EPA's proposal analysis underestimates the total exposure and risk. EPA agrees with this comment and has expanded its analysis to 50 km (31 miles); the risk assessment results presented in today's notice reflect this change. There are several reasons for EPA to extend its analysis out to 50 km. The EPA's guidelines for use of air quality models recommend that, because of the increasing uncertainty of estimates with distance from the modeled source and because of the paucity of validation studies at larger distances, the impact analysis should generally be limited to a downwind distance of 50 km from the source. Such site-specific factors as terrain features (complex or flat), the objectives of the modeling exercise, and the distance to which the model has been validated will determine the appropriate distance (whether greater or less than the guideline distance) over which the Agency should apply the model.

Unless there are special overriding technical considerations, EPA has decided to extend the hazardous air pollutant dispersion modeling out to 50 km (31 miles). The Administrator believes that the potential to identify additional significant public exposure outweighs the increased inaccuracies of applying the models beyond the previously accepted 20-km radius.

For the exposure model, it is assumed that people stay at the same location and are exposed to the same concentration for 70 years. The complexity of human mobility in today's society makes this assumption somewhat unrealistic. However, long-term individual mobility and concurrent changes in inorganic arsenic exposure are difficult to model with any amount of certainty. For example, it is unknown how long various portions of the population remain in an area and to what concentrations of inorganic arsenic they may have been exposed in other places they have lived. Thus, the simplifying assumption of a 70-year residence in one location has been made. On a smaller scale, the exposure model also assumes that people are continuously exposed to the average ambient arsenic concentration at their residence. In reality, people travel daily within and beyond the local area and they are exposed to different concentrations at their workplaces, schools, shopping centers, etc. However, it would be extremely difficult to model local travel and indoor and outdoor exposures, and any result would be highly uncertain. For instance, even if it were possible for EPA to collect this information over one particular time period, it may not be representative of population activities in times past or in the future. It is not known if this approach over- or underestimates actual exposures.

Moreover, the Agency believes that there is merit to using the simplifying assumption of 70-year resident immobility. When estimating risk, the Agency is concerned about both the public exposure that is occurring and that could potentially occur. That group of people being exposed to the highest predicted pollutant concentrations may include individuals, who for a variety of reasons, may spend a large majority of their lifetime at a single residence. Presently, the Agency does not have detailed information on those individuals that live near the inorganic arsenic sources, nor does it intend to collect routinely those kinds of specific data. Such data would not allow the Agency to predict the exposure patterns that high exposure groups may experience in the future. Since the purpose of estimating maximum individual exposure is to anticipate a reasonable worst-case scenario, EPA regards this assumption as appropriate.

In calculating aggregate risk, the estimates of annual cancer incidence are independent of population mobility as long as there is no net change in population of each exposure subgroup and no net change in the total population in the study area (see Overview—Risk Assessment Methodology for a description of EPA's exposure model). This conclusion is based on EPA's risk model which mathematically describes cancer risk that varies in direct proportion to cumulative lifetime exposure. For example, application of EPA's risk model produces the same estimate of total cancer incidence for a certain number of people exposed for a lifetime to a particular concentration as for a group twice that number being exposed for half a lifetime to the same concentration. It is possible for communities to remain rather stable in number and location of residents despite significant migration of individuals into and from the area. For this reason, the individual exposure assumption does not impact the estimation of aggregate population risk, i.e., the annual incidence.

Another problem is that emission sources do not emit at a constant annual level for 70 years. Many sources have reduced emissions over the past decade. To the extent that this trend continues, EPA's estimates may overstate risks. Similarly, the EPA assumes that the number of people that are exposed remains constant. These uncertainties are considered to the extent possible in interpreting and applying modeled risk estimates.

One commenter noted that EPA assumed that indoor air concentrations equaled the ambient concentration near the house and that assumption probably causes overestimation of exposure and risk. When developing inorganic arsenic exposure estimates, the Agency considered this possibility. If there are no sources or sinks for inorganic arsenic in the homes, the long-term concentrations in the home should equal the concentrations measured just outside the house. However, this may not be true for many homes. For example, homes that have a filtered air handling system for heating and cooling would tend to have lower indoor inorganic arsenic concentrations. Little study has been made of the relationship between indoor and outdoor inorganic arsenic concentrations. The limited available data on particulate matter indicate that the indoor concentrations are somewhat lower than ambient concentrations but the difference is not substantial; the indoor particulate matter levels are about 10 to 30 percent lower than the outdoor air. Whether this ratio applies to homes near arsenic sources is unknown. Since people spend part of their time on their property outside the house and since the available data do not indicate that a correction for indoor inorganic arsenic concentrations is required, the assumption of equal inorganic arsenic concentrations for both indoor and outdoor air over a long term is reasonable. The EPA has not made any revisions in its current analysis to account for this factor.

The distribution of individual susceptibility to lung cancer is unknown, so risk to sensitive subpopulations or individuals could not be considered quantitatively in EPA's model. Commenters correctly indicated that the unit risk estimate is based on the study of healthy males exposed in the workplace and the application of the

unit risk estimate assumes that the exposed community has the same cancer susceptibility as the exposed workers. As stated in the background documents, this is one of the uncertainties that may cause the risks calculated by EPA to be underestimated. The EPA, in its decisionmaking, is aware of the possible risk to sensitive individuals and to the extent possible considers this in its selection of the appropriate control option.

Several commenters suggested that EPA use approaches, such as direct monitoring, other than modeled exposure estimates. While appealing, it is not feasible to directly measure exposure to ambient arsenic. In a heavily populated area such as El Paso or Tacoma, a large number of monitors would be necessary. Perhaps as many as 50 to 100 monitors within 50 km (31 miles) of the plant would be needed to determine the concentrations to which persons living near a source are exposed, since exposure will vary with distance and direction from the plant. Furthermore, air quality monitors cannot predict potential ambient concentration reductions due to a certain control option, or past or future concentrations. Conversely, dispersion models can be used to estimate time variations in exposure and to predict exposure under any emission control scenario.

Based on the Agency's present level of knowledge, EPA also has rejected the use of urinary arsenic concentrations as a measure of public exposure to smelter emissions or lung cancer risks and for developing Section 112 regulations. The primary reason is that urinary arsenic levels and how they relate to adverse effects such as cancer are not well understood, although we do know they reflect many factors in addition to the inhalation of arsenic. Arsenic in food and drinking water can account for increases and decreases in urinary arsenic concentrations. Individual metabolism and age also can cause variations in the amount of arsenic excreted. Thus, at low dose levels urinary arsenic levels cannot be used to estimate exposure to air emission sources only, because other sources of exposure contribute in unknown degrees to arsenic concentrations in urine.

Furthermore, an attempt to determine exposure to the population within 50 km (31 miles) of an inorganic arsenic source using urinary arsenic measurements would not be feasible. The analysis procedure would be relatively expensive and time consuming; to get a good "map" of exposure, one would have to measure urinary arsenic levels in many individuals living at many different locations at different times of the year under a variety of meteorological conditions. Dispersion and exposure modeling, despite its drawbacks, is a much more practical approach.

As discussed earlier, increased health risk to residents in an area surrounding a source cannot be measured directly either. Epidemiological studies have revealed an association between occupational exposure to ambient arsenic and lung cancer, but such associations are not readily measured in the general public because of the presence of many confounding factors. These include the public's greater diversity and mobility, the lack of consolidated medical records, lack of historical exposure data over each individual's lifetime, public exposure to many carcinogens besides inorganic arsenic, and the long latency period of cancer. Because of such factors, increases in cancer observed in the public can rarely be assigned to a specific chemical or emission source. Therefore, public risk is estimated by using an exposure/risk relationship developed from epidemiology studies. The Human Exposure Model (HEM) uses air dispersion and population models to estimate exposure, and then applies the exposure risk relationship to calculate risks. These assessment procedures are the only tools currently available to EPA for making such estimates.

Risks from other potential inorganic arsenic-related health effects were not modeled. For example, skin cancer also has been associated with inorganic arsenic when exposure occurred through ingestion or dermal contact. Health effects other than cancer which could result from chronic, low-level exposure to inorganic arsenic have not been well documented. These effects have not been consistently observed where exposure/risk relationships can be established. For this reason, health risks other than lung cancer cannot be quantitatively estimated or modeled. The potential for risks of other unknown health effects is considered by EPA to the extent possible during the decisionmaking procedure. It is not clear that these other effects are occurring at workplace exposure levels and, as best as can be determined, they do not occur at levels of public exposure.

Although a number of commenters had assumed that measured ambient arsenic concentration data provided the best means of calculating exposure, the Natural Resources Defense Council (NRDC) and the Attorney General's Office of New York questioned the reliability of either EPA's Or ASARCO's ambient data. The NRDC mentioned that the ASARCO monitoring program had a number of uncertainties such as the untested correspondence between the ASARCO air sampler (low-volume filtration) and EPA's air sampler (high-volume filtration), and the lack of a quality assurance program. New York questioned the reasons for changes in the measurement technique used by EPA for establishing mass of the collected arsenic and thought that the Agency's analysis was designed for measuring only certain inorganic arsenic compounds and not all arsenic compounds.

To measure the atmospheric concentrations, the Agency first collects or "captures" arsenic onto or into some medium from which analytical techniques can determine the mass of the collected arsenic. Both ASARCO and EPA use devices that draw the air through a filter to capture the ambient particulate matter and then analyze the amount of arsenic in the filtrate. The concentration of arsenic is calculated by dividing the measured mass of the pollutant of the filter by the measured volume of air that passed through the filter. Portions of the commenters' concerns centered on one of the two phases of atmospheric measurement (sampling or analysis) described above.

In the early 1970's, limited research indicated that some if not a substantial amount of arsenic was not being collected by either the high- or the low-volume sampler's filters. More recently, ASARCO conducted a more extensive test of their low-volume air sampler's collection efficency. The collection efficiency test was performed by adding arsenic gas phase collection devices behind the filter. The EPA and the Puget Sound Air Pollution Control Agency (PSAPCA) reviewed the study results and determined that the data provided evidence of the reliability of the low-volume sampler to collect arsenic. Although the data showed that the device was not 100 percent efficient (no collection device can be), generally more than 90 percent of the airborne arsenic was collected by the filter and consequently, less than 10 percent of the arsenic was collected by the impingers.

However, some of the arsenic data used in the risk assessment was collected using high-volume samplers. In addition to the impinger studies, ASARCO, in conjunction with the State of Montana, conducted a comparison study between the low-volume and the high-volume air samplers. This study indicated that the two devices provided measurements that were highly correlated, the concentrations measured

by low-volume air samplers were about 18 percent higher than those measured using high-volume samplers; the low-volume samplers' data ranged from 4 to 33 percent higher than the high-volume sampler's data. The two sampling techniques are statistically different at the 90 percent level. Thus, the combination of the two studies, the ASARCO/Montana study and the ASARCO impinger study, provide evidence to the Agency that for purposes of the inorganic arsenic risk assessment the high-volume air sampler data have adequately measured the amount of arsenic in the atmosphere.

Regarding the second phase of measurement (analysis), EPA has changed the analytical techniques used over the years. The objective of switching techniques was to improve sensitivity and accuracy, and the Agency has generally been successful in doing so. However, the commenters should note that both the Agency's and ASARCO's routine analyses measure elemental arsenic; it is more difficult to provide analyses on individual species of arsenic compounds such as arsenic trioxide or the trivalent arsenic compounds than the elemental concentrations. Also, when measuring total elemental arsenic, the Agency uses a quality control/quality assurance program to assure the best data possible.

Based on the available company data and some limited monitoring data collected at nearby sites, the Agency believes that both ASARCO and EPA arsenic data have some measure of uncertainty, but may provide more reliable information than the air dispersion modeling. For these reasons, the Agency followed through on the commenters' suggestion to check air dispersion predictions against available air quality data and this has been done where the data would provide meaningful comparisons.

Risk Management

Risk Management Approach

Several comments focused on whether the proposed inorganic arsenic standards provide an ample margin of safety as required by Section 112. These comments either directly or indirectly address the Agency's position that a Section 112 regulation can permit some level of residual risk and still provide an ample margin of safety to protect public health (see the Overview—Basis for Promulgated Standards section of this preamble for the full statement of the Agency's position). A significant number of those who commented on this issue felt that the proposed standards were entirely inadequate to provide this "ample margin of saftey." Opposing views were held by other who felt that the proposed standards were adequate to protect the health of the citizens living in the local communities.

According to several commenters, the Agency should establish a level of health risk resulting from exposure to hazardous pollutants that it considers to be acceptable. For instance, commenters felt that maximum individual risks above 1 in 1,000 were unacceptable. Some felt that risk levels below 1 in 100,000 or 1 in 1,000,000 could be considered negligible. In addition, many commenters felt that the emission standards for arsenic should be set at a zero level or at a level which would result in no deaths (zero risk); however, other commenters felt that a zero-risk standard was not possible or needed. Some said it would be difficult or impossible to determine an acceptable level of risk, while others said that EPA should determine an unacceptable level of risk before promulgating a regulation.

Many commenters sought a framework for determining the acceptabilty of the estimated risks. They suggested that comparisons of risk levels to those associated with other societal and environmental factors might be appropriate. Both voluntary risks (such as those associated with smoking) and involuntary risks (such as the risk of being struck by lightning) were suggested as a basis of comparison.

Many of these commenters, in effect, are advocating that EPA establish a target, or maximum permissible, risk level for setting standards under Section 112. Under this approach, a fixed numerical risk or expected cancer incidence rate target could be used in determining the degree of control required for carcinogens. Although EPA finds the concept of an established "acceptable" risk level appealing, it suffers, from several drawbacks. First, the Agency perceives there would be substantial difficulty in determining such levels. This perception was borne out by the wide range of opinions on what constituted acceptability in the minds of the commenters. Second, although current quantitative risk assessment techniques for chemical carcinogens are useful decisionmaking tools, considerable uncertainties are associated with these techniques at their current stage of development. Consequently, the Administrator believes that in using quantitative risk assessments, he should generally be free to consider that actual cancer risks may be significantly above or below those predicted by the estimated procedures, and not bound by a fixed target. Third, a fixed target level fails to provide the flexibility necessary for an appropriate response. For example, where risks could be reduced beyond the target without significant costs, that should be permitted. Likewise, where attainment of the risk-based goal would eliminate a highly beneficial or necessary activity, the decisionmaker should be able to consider less stringent standards. The EPA agrees with those commenters who perceived that specific acceptable risk levels are very difficult to set and are not reasonable as a basis for regulation. After reflecting on the various points presented, the Administrator supports the concept of reducing public risks to the extent possible considering the uncertainties and technical feasibility, and the environmental, economic, energy, and other impacts on society and industry. (See Basis for Standard sections of this preamble for a discussion of how these factors were specifically used to select the level of control in the final standards.)

The EPA understands the desire of the public to seek a reference for relating to the estimated risk levels associated with inorganic arsenic source categories. The EPA believes that comparing the estimated increased lung cancer risk associated with inorganic arsenic source categories, as seen in other sections of this notice, to national lung cancer rates provides a useful perspective (see Table II–1).

TABLE II–1.—NATIONAL CANCER AND LUNG CANCER RATES—ALL AGES (1982)[a]

	Annual deaths per 100,000[b,c]	Percent of total deaths[b]
Malignant neoplasms of respiratory and intrathoracic organs	50.2	5.8
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (cancer—all forms)	188.1	21.9

[a] Source: "Monthly Vital Statistics Report," National Center for Health Statistics, Vol. 31, No. 13, October 5, 1983.
[b] Based on a 10 percent sample of deaths.
[c] Rates are not age-adjusted.

Basis for Proposed Standards

Many commenters objected to EPA's setting standards based on "best available technology" (BAT). Commenters felt that basing standards on BAT placed too much emphasis on nonhealth issues such as technology, economics, and affordability. They stated that under section 112 the protection of public health, not costs or the availability of technology, is the primary consideration in developing standards. A few commenters objected

to the BAT approach because it provided no incentive on the part of industry to develop improved control technology. On the other hand, several commenters favored basing a standard on BAT, calling it a reasonable, logical approach. They felt it was a reasonable approach when considering uncertainties associated with estimating public health risks. They also felt that economic data are important and must be considered in setting standards under section 112. Some commenters noted that basing standards on BAT may allow for continued improvement. As a new technology becomes available and economically feasible, commenters thought it appropriate to require that technology for control of emissions.

Comments received on the risk management approach described in the July 20, 1983, notice of proposal suggested that many do not believe that the approach sufficiently considers protection of public health. Evidently, some commenters saw the selection of BAT as the final step in the decisionmaking process. Also, there seemed to be some level of misunderstanding as to what BAT represented and some confusion between BAT and similar terms used in other EPA programs, such as "best available control technology" (BACT) found in the Prevention of Significant Deterioration program and "best available technology" (BAT) in the water program.

Several commenters either interpreted the meaning of BAT in terms of a level of control that would force further development of control technology or desired the Agency to adopt this definition. This perception is not, however, consistent with EPA's proposed definition of BAT applied to inorganic arsenic control. Under EPA's definition at proposal, BAT was an available, feasible, and affordable technology. An option which would be technology-forcing and which might require plant closure if the technology does not evolve was defined as beyond BAT. However, commenters who are concerned that technology improvements will bypass EPA's regulation are reminded that the Agency's activities do not stop with the promulgation of standards; EPA will periodically review today's regulations and revise them appropriately in light of improved control technologies.

In addition, several commenters responded to EPA's suggestions regarding alternative strategies for using exposure/risk information to determine best available technology (BAT) for low-arsenic primary copper smelters. The BAT policy upon which the proposed decision was based gave limited weight to exposure and risk information and substantial weight to the economic feasibility of installing technologically available emission controls. The Agency sought public comment on the degree to which exposure and risk information should be used to establish BAT and, in doing so, presented two alternative strategies. Under the first alternative, called the population density approach, EPA would subdivide the source category on the basis of population density (a surrogate for public exposure) near each source before determining BAT. Sources would be put into a "high" or "low" population density category and BAT would be determined for each subcategory of sources. Under the second alternative, the risk-based approach, EPA would place sources into "high" or "low" risk categories based on consideration of the combination of estimated maximum individual risk and the annual incidence estimates. Again, BAT would be determined for each source group.

One commenter felt that under both of EPA's alternative approaches for determining BAT for low-arsenic copper smelters, EPA was making the protection that an individual deserves a function of the number of people at the same level of exposure. He, along with three other commenters, said that the population density approach had the potential for causing people in sparsely populated areas to be exposed to higher risk than people in cities. Under the risk-based approach he said a person could be exposed to shockingly high risks unless there are many people in a similar situation. He stated that the Clean Air Act does not authorize such inequitable distinctions.

Two commenters rejected both alternatives by saying that, although the cost factors associated with regulation may be excessive for smaller sources, EPA should establish required controls for the entire industry to regulate more effectively environmental pollutants. One suggested that if such an approach was going to drive somebody out of business, that individual should petition Congress and let Congress decide whether that is an unacceptable tradeoff between risk reduction and the cost of compliance. Another said that once a standard is set, penalties should be imposed for violations that are stiff enough to make compliance economically worthwhile.

Although they wanted risk information to be used in a more significant way in determining BAT, the Office of Management and Budget (OMB) was not supportive of either alternative approach presented by the Agency and said that the stepwise process of classifying sources (based on risk or exposure data) into subcategories and then determining BAT (based on technology and costs) produces inconsistent results. The OMB argued that one of the most important factors, risk reduction, could not be considered in the subcategorization process, and plants may be required to apply controls that are "too little" or "too much" in light of the reduction in public risks. Thus, for each plant, EPA would be unable to balance the effectiveness of all control options in light of likely public health gains and costs of achieving further control. The OMB went on to suggest that EPA should establish BAT in one step where the decision criteria, reduction in public health risks and costs of further controls, can be considered and balanced at the same time. If exposure and risk were considered in the process of subdividing the source category for purposes of establishing different levels of BAT, then the selection of BAT based on cost effectiveness of reducing emissions would serve as a reasonable estimate of the cost effectiveness of reducing public exposure and risk. Another commenter agreed with this basic concept, but suggested that EPA discontinue the BAT approach and use the one step that considers risk, risk reduction, available controls, and costs when making decisions to regulate each source category.

Two commenters supported EPA's proposal to subdivide low-arsenic primary copper smelters based on cancer incidence and health risk data. One felt that a more uniform risk criterion should be established for regulating each source category and preferably for each carcinogen. In fact, the commenter said, in the case of inorganic arsenic abundant risk information is available, providing confidence that safe levels can be prescribed. Risk information should play a more significant role in establishing BAT.

Three commenters disagreed with EPA's cancer incidence and health risk based approach as an alternative strategy. One felt that this approach would be based on unreliable risk estimates. Two other commenters shared his concern and stated that this regulatory alternative also suffers from other serious problems, such as the intentionally conservative assumptions in calculating risk which distort and exaggerate the risk estimates. The high risk etimates place sources in the high

risk category when, in actuality, they do not need further controls.

The OMB noted that most of the public health gains projected from the proposed rules would result from control of emissions at a distinct subset of plants. For example, control of secondary emissions from converter operations at three smelters accounts for 88 percent of the total cancer reduction for low-arsenic copper smelters but only 34 percent of the total control costs. The commenter pointed out that an alternative regulatory strategy that emphasizes the effectiveness of further controls on a particular subcategory of sources could achieve most of the health gains at a substantially lower cost.

One commenter suggested modifying the BAT approach to include a graduated risk approach for regulating existing sources. Under this approach, the lowest achievable emission rate (LAER) would be required for sources with risk levels exceeding 1,000 in one million; BAT would be required for sources with risks between 1,000 in a million and 1 in a million; and no NESHAP regulation would be required for sources with risks less than 1 in a million. The commenter also said that if EPA does not have the confidence in its risk assessment figures to set such risk levels as firm standards, then acceptable risk levels should be set as goals to be considered in the regulatory decisionmaking process.

The Agency carefully considered the above comments. Generally, there was not a strong support for either of EPA's suggested alternative approaches, and the variety of other approaches offered indicated that the public perceived major flaws in the Agency's proposed BAT subcategorization approach as well as the suggested alternatives. Based on EPA's experiences with benzene and now inorganic arsenic, the Administrator agrees that the BAT approach and its stepwise procedures are inflexible and make it difficult to weigh all the important factors at the appropriate point in the decisionmaking process.

When the Agency began formal dialogue with the public on many of these issues by proposing the air carcinogen policy in 1979 (49 FR 58642), the BAT concept was the keystone to EPA's strategy. The Agency realized that it was necessary to have a technical portion of the decisionmaking process that considered what control technologies were available and could reasonably be applied to the source category being considered for regulation. The Agency was desirous of applying a similar control requirement for most or all of the sources within the category. However, as EPA reviewed the public comments on the carcinogen policy and gained more experience with specific pollutants such as inorganic arsenic and benzene, the shortcomings of the BAT approach became more apparent.

As highlighted by the wide range of estimated risks, existing controls, and affordability for individual plants in the primary copper smelter category, the proposed and the suggested BAT approaches would in certain cases place individual sources into subcategories that, on balance, would be inappropriate. There were several reasons for this. Each of the step-wise approaches tended to downplay at least one significant piece of information. For example, the commenters pointed out their concern that a small number of people being subjected to very large unacceptable risks were not going to be appropriately protected. With the risk-based alternative regulatory strategy, a hypothetical source with very high individual risks and very low annual incidence would not be regulated.

Also, the process of selecting a cutoff, that is, an emission, risk, cost or other parameter that would separate sources into one subcategory or the other, places a large burden on the Agency when there are a number of sources near the cutoff value. Uncertainties in EPA's analysis (which may be considerable) makes the task difficult to reasonably separate sources into two subcategories. An example would be a source that narrowly fell into the low risk category but could easily afford to substantially reduce its emissions and risk. It may be reasonable, upon further scrutiny of the risk information, to regulate this source, although a straightforward application of the BAT decisionmaking routine would not require further controls. For these reasons and the reasons given in the discussion of the current approach, the Administrator has come to the conclusion that the Agency cannot, at this time, establish a mathematical formula that will accommodate all the relevant factors of managing public risk.

Therefore, the Administrator has decided to move away from the BAT approach and refine the decisional procedure into a simple one-step process designed to reduce unacceptable risks with as little social or economic disruption as possible.

As can be seen when comparing the risk management description in today's promulgation to the one given in the proposal, the term "BAT" has been removed. This change reflects more than just a revision in terms; it is a refined approach used in selecting the final control option as a basis for the Section 112 regulation. Instead of the previous multi-step process, this approach incorporates an amalgam of elements of the BAT residual risk approach combined with elements of the two risk-based alternatives set forth in the proposal. Under each control option, the residual risks were considered along with other important factors such as risk assessment uncertainties, economic and environmental impacts, and affordability. With this approach, there is no separate step for determining BAT or for examining the reasonableness of the residual risks. Rather, these are combined into a single selection process which involves considering possible control options and the technical, economic, public health, and other implications of each option. This refinement, the Administrator believes, is both rational and consistent with the intent of section 112, and it responds to many concerns of the commenters.

There are certain factors that must be evaluated, and they will remain in any process for selecting the appropriate control option. For instance, has the control technology been demonstrated at other installations as a means to reduce emissions? If required, can the control device actually be used safely on the process or the stack gases? Will the control technology create new problems such as increased pollution in another medium such as the water or land? Is the control technology so expensive that its application will shut down a large portion of the plants within the source category? In summary, there is no one consistently overriding factor in the evaluation of whether to regulate a given source category or sources within the category; rather, a more flexible approach is used to weigh the effects of regulation in a given situation. Under both the proposed BAT approach and the current risk management approach, EPA has considered and will continue to consider these technical and economic factors as part of the selection of the appropriate level of control.

Consideration of the OSHA Standard

A number of commenters compared measured or predicted ambient inorganic arsenic concentrations to the OSHA permissible exposure limit of 10 $\mu g/m^3$ in an attempt to show that exposure to ambient inorganic arsenic concentrations below 10 $\mu g/m^3$ would cause insignificant health effects. However, EPA believes that it is inappropriate to make such comparisons for several reasons.

For example, there is a difference in the averaging times of the concentration

values used by OSHA and EPA. The OSHA standard is based on an 8 hour time-weighted average for occupational exposure, while EPA's concerns are with long term average (lifetime) community exposures. For instance, a 10 $\mu g/m^3$ exposure for 8 hours per day, 5 days per week, 50 weeks per year and 45 years over a lifetime equates to a continuous lifetime exposure of less than 1.5 $\mu g/m^3$. This example demonstrates that on a technical basis, direct comparisons cannot be made between EPA's estimated long term pollutant concentrations and the OSHA standard.

In addition, OSHA did not conclude that the 10 $\mu g/m^3$ level it set left only an insignificant risk. Rather, OSHA concluded that the level it set was the lowest feasible level, and that a significant risk remained to employees at that level. It stated:

> OSHA also concludes, based on the estimates from the risk assessments and the dose-response demonstrated in many of the epidemiology studies, that a 10 $\mu g/m^3$ exposure limit, *the lowest level feasible*, together with the industrial hygiene provisions in the arsenic standard are necessary and appropriate to significantly reduce the health risk . . .

Finally, OSHA concludes that the new inorganic arsenic standard setting exposures at 10 $\mu g/m^3$ does not reduce the risk of the exposure to inorganic arsenic below the level of significance. (48 FR 1867, January 14, 1983). OSHA added,

> The linear model estimates a risk level of 7.7 to 10 excess cases of cancer per 1000 exposed workers at the 10 $\mu g/m^3$ limit. OSHA's preliminary conclusion is that significant risk is not eliminated at this risk level and that a reasonable person would take steps to reduce it if feasible (48 FR 1902).

OSHA has clearly stated their judgment that the risk level associated with their 10 $\mu g/m^3$ standard is significant and that their standard is based on the limit to which feasible engineering and work practice controls can reduce the workplace concentrations. For these reasons, the use of the OSHA standard as a reference or target concentration for the protection of public health under the Clean Air Act is inappropriate.

III. Primary Copper Smelters

As indicated in the Overview section of this preamble, on July 20, 1983, EPA proposed standards in the **Federal Register** (48 FR 33112) for inorganic arsenic emissions from low- and high-arsenic primary copper smelters. The public comment period for the proposed standards, which was extended twice at the request of members of the public, ended on January 31, 1984. The public comment period was later reopened on September 20, 1984, to allow comment on EPA's analysis of new information on emissions and costs for low-arsenic smelters. This comment period ended on November 5, 1984.

At the time of proposal, the low-arsenic smelter category included 14 smelters and it was estimated that the proposed standard would affect six of the smelters. The high-arsenic smelter category only included and affected the smelter owned and operated by ASARCO, Incorporated, located in Tacoma, Washington. On June 27, 1984, ASARCO announced plans to close its primary copper smelting operations at Tacoma, Washington, by June 20, 1985; and subsequently ceased copper smelting operations at Tacoma. Because of this, EPA is withholding further action on the proposed standard for existing high-arsenic primary copper smelters. The EPA will continue to monitor ASARCO's actions and will reconsider the need for a separate standard applicable to existing high-arsenic smelters if there is evidence that ASARCO-Tacoma will resume copper smelting operations. However, even in the absence of a specific high-arsenic smelter standard, the standard being promulgated today would apply to the Tacoma smelter if copper smelting operations were to resume. Today's standard is applicable to all existing and any new primary copper smelters.

This part of the preamble presents the final standard, its basis, and a discussion of public comments on the proposed standards. The discussion of comments includes comments made on the proposed standard for high-arsenic smelters that are also pertinent to the proposed standard for low-arsenic smelters, as well as comments made on the proposed standard for low-arsenic smelters.

Summary of Promulgated Standard

Applicability

The standard that is being promulgated today applies to each existing and new primary copper smelter. For all copper smelters, the standard requires monitoring, recordkeeping, and a reporting of average annual inorganic arsenic feed rate to the converters. For all copper smelters with average annual arsenic feed rates to the converters greater than 75 kg/h (164 lb/h), the standard requires control of secondary emissions for the converters. These facilities also are required by the standard to minimize excess emissions during malfunctions and process upsets, to monitor emissions; to maintain specific records, and to report all occurrences of excess emissions.

Standard for Converter Operations

The standard for converter operations remains the same as proposed. The standard requires capture and collection of secondary inorganic arsenic emissions from converter charging, blowing, skimming, holding, and pouring operations. The standard is expressed in terms of equipment and design specifications and work practices for the capture system, and a maximum allowable particulate emission limit for the control device. Equipment and design specifications described in the regulation are intended to ensure that the secondary hood system achieves its maximum capture efficiency. The secondary hood system specifications include: (1) The configuration and dimensions of the hood enclosure must be sized so that the converter mouth, charging ladles, skimming ladles, and other material transfer vessels are housed within the confines or influence of the hood during each mode of converter operation; (2) the back of the hood enclosure must be fully enclosed and sealed against the primary hood; (3) the edges of the hood enclosure side-walls in contact with the converter vessel must remain sealed during each mode of converter operation; (4) the size of the opening at the top and front of the hood enclosure necessary for the entry and egress of ladles and crane appratus must be minimized to the fullest extent practicable; (5) the hood enclosure must be fabricated in such a manner and of materials of sufficient strength to withstand incidental contact with ladles and crane apparatus with no significant damage; and (6) one side-wall of the enclosure must be equipped with a horizontal-slotted plenum along the top, and the opposite side-wall must be equipped with an exhaust hood.

The standard specifies that the horizontal-slotted plenum shall be connected to a fan and the air curtain fan be sized to deliver a minimum of 22,370 watts (30 air horsepower) at the slot. In addition, the converter and the air curtain secondary hood system must be operated at conditions optimum for the capture of secondary inorganic arsenic emissions. The owner or operator must visually inspect the components of the system at least once every month and maintain each converter and associated secondary hood system in a manner consistent with minimizing inorganic arsenic emissions.

Particulate emissions from the collection device may not exceed 11.6 mg/dscm (0.005 gr/dscf).

Requirements for Periods of Excess Emissions

At all times, including periods of startup, shutdown, and malfunction, the standard requires plant personnel to minimize emissions of inorganic arsenic from the converters and associated control devices to the greatest extent possible. The standard requires the owner or operator to submit a plan for control of emissions during startup, shutdown, and malfunctions of converter and associated emission control equipment. The plan shall include: (1) A systematic procedure for identifying malfunctions and for reporting them immediately to supervisory personnel; and (2) procedures that will be followed to ensure that equipment or process breakdowns due to poor maintenance or other preventable conditions do not occur.

Compliance Provisions

The Standard requires compliance within 90 days of today's date, unless a waiver of compliance is obtained from the Administrator. Waivers can be granted for a period of time needed to install controls to comply with the standard, not to exceed 2 years from today's date. Each smelter that has an average arsenic feed rate to the converters greater than 75 kg/h (164 lb/h), must have installed the required controls within 90 days of today's date to be in compliance, unless a waiver is requested and granted. Most smelters already monitor the arsenic content of feed materials throughout the smelting process and, based on historical data, should know whether they will be affected by the requirement for secondary converter controls. Should any additional smelter in the future have an annual arsenic feed rate to the converters greater than 75 kg/h, the owner or operator of that source must install the required controls within 90 days of the determination, unless a waiver is requested and granted.

The average annual arsenic charging rate to the converters shall be determined each month using the monthly average weight percent of arsenic in feed materials and charging rates to the converters for a 12-month period. The weight percent of arsenic in feed materials will be determined using Method 108A. Compliance with the particulate emission limit for copper converter control devices will be determined using EPA Reference Methods 1 through 5 in Appendix A of 40 CFR Part 60.

Continuous Monitoring

Owners or operators of facilities that must capture and control converter secondary emissions must continuously monitor the opacity of converter secondary emission streams that exit from a control device. The standard requires that reference opacity levels be established for each converter operating mode based on the highest 1-hour average opacity level monitored during a 36-hour evaluation period. Thereafter, occurrences of average opacity levels above the respective reference levels must be reported as exceedances to Administrator along with information describing the cause of the exceedances.

Continuous monitoring of air flow through the converter air curtain secondary hood system's horizontal-slotted plenum and exhaust hood is also required to ensure that the hood system is being properly operated and maintained. Occurrences of air flow rates less than 80 percent of the reference air flow rates must be reported as exceedances along with information on the causes of the exceedances.

Recordkeeping and Reporting Requirments

Owners or operators of source covered by the standard are subject to the reporting and recordkeeping requirements of the standard as well as those prescribed in the General Provisions (Subpart A) of 40 CFR Part 61. Specific reporting requirements of the promulgated standard include: (1) An initial report and subsequent annual reports of the average inorganic arsenic charging rate to the converters at each affected smelter; (2) reports of emission test results to demonstrate compliance with the particulate emission limit for control devices treating converter secondary emissions; (3) for the converter secondary hood systems, quarterly reports of occurrences of air flows less than 80 percent of the corresponding reference flow rate for any converter operating mode; and (4) for converter secondary emission collection devices, quarterly reports of excess opacity readings and the reference opacity levels set at the time the collection device demonstrated compliance. In addition, the owner or operator shall submit a report documenting the evaluation of the opacity monitoring system and the establishment of the reference opacity level.

Records of supporting data for the reports described above must be maintained at the source for a period of 2 years and made available to the Administrator upon request. These records will include the monthly arsenic charging rate to converters in existing and new smelters, and all continuous monitoring data.

Summary of Environmental, Health, Energy, and Economic Impacts

The standard being established today affects existing and new primary copper smelters. It is estimated that only one existing domestic primary copper smelter, the ASARCO smelter at El Paso, Texas, will be required to install control equipment to comply with the standard. No new domestic copper smelters are projected to be built in the next 5 years. This projection is based on EPA's conclusion that in the next 5 years annual copper industry growth in the U.S. will be accomplished by existing primary copper smelting capacity.

The standard will reduce secondary inorganic arsenic emissions from the affected smelter by about 1 to 4 Mg per year (1.1 to 4.4 tons per year). As a result of this reduction in inorganic arsenic emissions, it is estimated that the number of incidences per year of lung cancer due to inorganic arsenic exposure for persons residing within 50 km of the affected smelter would be reduced from 0.38 to 0.29 case per year. The standard would reduce the estimated maximum lifetime risk from exposure to airborne inorganic arsenic at the affected smelter from 1×10^{-3} to 8×10^{-4}. The estimated maximum lifetime risk represents the probability of a person contracting cancer who has been exposed continuously during a 70-year period to the estimated maximum long-term inorganic arsenic concentration due to emissions from the smelter. These estimated health impacts were calculated based on a number of assumptions and contain uncertainty as discussed in Appendix C of the BID for the promulgated standard (EPA–450/3–83–010b).

Application of the controls required would slightly increase the amount of solid waste handled by the smelter. The additional solid waste can be easily handled by ASARCO-El Paso. The standard also does not create any direct water pollution impacts, since the control system used at ASARCO-El Paso is a dry system (a fabric filter collector). The standard will increase electrical energy consumption by approximately 2000 MW, or approximately 0.1 percent above plant energy requirements without the standards.

Capital and annualized costs of complying with the standard are estimated to be about $1.85 million and $379,000, respectively. The primary economic impacts associated with the standard are projected decreases in profitability for the ASARCO-El Paso smelter if costs cannot be passed through. If the costs are passed forward in the form of a price increase, it is estimated that the final standard would result in a 0.3 percent increase in the price of copper. No plant closures are anticipated to result from this standard.

Significant Changes Since Proposal

Since proposal of the standard, a number of major and minor changes have been made. Significant changes have been made to the applicability of the standard, the opacity monitoring requirements, and the requirements for control of matte and slag tapping emissions. In addition, requirements for control of excess emissions during malfunctions and upsets have been added. The bases for these changes are discussed in the Basis for Standard and Discussion of Comments sections of this part of the preamble. The changes are summarized below.

Applicability of Standard. The standard is now applicable to new and existing primary copper smelters. The proposed standard was applicable to new and existing low-arsenic primary copper smelters, and a separate standard was proposed for high-arsenic smelters. The standard for converter secondary emissions now applies to all converters where the average annual arsenic feed rate to the converters is 75 kg/h (164 lb/h), or greater; the proposed level was 6.5 kg/h (14 lb/h). At proposal, it was estimated that six smelters would be required to install controls to comply with the standard. The final standard is expected to affect only one existing smelter in this manner.

Control Requirements for Matte and Slag Tapping Emissions. The standard no longer includes provisions requiring application of emission control to matte and slag tapping operations.

Requirements for Periods of Excess Emissions. Provisions have been added to the standard that require steps to be taken to minimize emissions during malfunctions and upsets and that require operation and maintenance of converters and associated air pollution control equipment in a manner that avoids preventable malfunctions.

Test Methods and Procedures. The equation for calculation of the converter arsenic charging rate was revised to clarify that all converters operating at a smelter are considered in the calculation of the arsenic charging rate and that applicability is not determined for each converter separately. This revision was made to clarify the calculation method and the basis for the cutoff, and does not represent a substantive change in the method of determining applicability. The revised equation calculates converter arsenic charging rates in a manner that is consistent with the method used to calculate the rates presented in Table III–1, given later in this notice.

Opacity Monitoring. The proposed standard required reporting of all 6-minute average opacity levels greater than the 97.5 percent upper confidence level of a normal or log-normal distribution of the 6-minute average opacity levels monitored during the emission test. This requirement has been revised to require establishment of reference opacity levels based on the highest 1-hour average opacity level monitored during a 36-hour evaluation period. The evaluation period will include the time period during which the emission test for the control device is conducted. Occurrences of 1-hour average opacity levels above the reference level must be reported as excess emissions.

Recordkeeping and Reporting. The proposed requirements were redrafted to clarify some requirements, to improve the organization of the sections, and to add additional requirements. New recordkeeping and reporting requirements added include maintenance of a record of malfunctions and all actions taken to reduce emissions until the problem is corrected; and reporting of any changes in the operating conditions of the emission capture system, control device, or the building housing the converters that might increase emissions. In addition, exceedances of opacity and air flow rate reference values are now to be reported quarterly instead of semiannually.

Additional Analyses

Because of public comments, EPA has conducted additional analyses to ensure that the final rule is based on the most complete and accurate information available. These additional analyses include revision of emission estimates, revision of dispersion modeling and risk assessments, and additional cost and economic impact analyses. The scope of these additional analyses is summarized in the paragraphs below. The conclusions are presented in the Discussion of Comments section of the preamble and are discussed in detail in the BID for the promulgated standard.

Emission Estimates

Since proposal, EPA has refined its estimates of process and fugitive emissions for the 14 primary copper smelters. These revised estimates are based either on additional information on the emission inventory or on refinements in emission estimates.

Analysis of additional information provided by copper companies for eight smelters concerning arsenic inputs, distribution, emissions, and baseline controls resulted in significant revisions to converter secondary emission estimates at seven smelters. Comments that prompted the additional analyses of emission information for these eight smelters and EPA's detailed responses are included in the BID for the promulgated standard (EPA–450/3–83–010b) along with comments received on the revised emission estimates. These comments and responses also are summarized in the Discussion of Comments—Emission Estimates section of this preamble.

The EPA also reviewed the emission estimates for the remaining low-arsenic smelters and made minor adjustments as necessary. These adjustments primarily reflected refinements in assumptions and calculations concerning distribution of arsenic between primary and secondary emission sources. These revised emission estimates are also presented in the BID for the promulgated standard.

Dispersion Modeling

At the time of proposal, EPA recognized that the estimates of public exposure to inorganic arsenic emissions from the 14 low-arsenic copper smelters needed improvement. In particular, it was known that uncertainties in emission estimates, particularly the estimates of fugitive emissions and other information used in dispersion modeling, could contribute to significant errors in estimates of ambient concentrations. Because of the recognized uncertainties in the information used in the dispersion modeling studies, EPA undertook to improve the dispersion modeling results. The EPA reviewed emission sources and quantities used as inputs to the HEM at proposal to make quantitative estimates of public exposure, current risk, and probable risk reduction resulting from application of controls. Input parameters for each smelter were revised based on results of the reanalysis of emission estimates and upon best available meteorological data for each site. The model was applied to the revised set of input parameters for each low-arsenic throughput smelter and new arsenic

dispersion estimates were obtained. The revised modeling results predicted ambient concentrations at distances up to 50 km (31 miles) from the smelter. The procedure used to estimate health risk is described in Part I of this preamble, Risk Management. Further, more sophisticated modeling of arsenic dispersion was performed for two of the smelters, as discussed below.

At the plant sites of Douglas, Arizona (Phelps Dodge), and El Paso, Texas (ASARCO), EPA performed more detailed, site-specific analyses which included the use of plant meteorological data, consideration of terrain features, and the use of more sophisticated air dispersion models. These two sites were selected because of the availability of on-site or nearby meteorological data. At the other primary copper smelter sites, similar data were not reasonably available.

In its original risk assessment, EPA did not consider terrain effects or the effect of buoyancy of the fugitive emissions escaping from the furnace buildings. Additional dispersion analyses were performed for the El Paso and Douglas sites to examine the combined effect of terrain, downwash, and buoyancy on airborne arsenic concentrations. These analyses are described in Appendix C of the BID and in a report, entitled "Atmospheric Dispersion Modeling of Long-Term Average Arsenic Concentrations in the Vicinities of Four Industrial Plants" (A–80–40/IV–A–12).

The concentration profiles predicted by both the more sophisticated model and by HEM were compared to available ambient data near the El Paso smelter to confirm the model's abilities to provide reasonable estimates of ambient arsenic concentrations. Both air dispersion models generally underpredicted the ambient concentrations at the El Paso site. The EPA expects that the dispersion models could tend to slightly underpredict ambient concentrations since the ambient monitors collect arsenic due to other nearby sources including arsenic that naturally occurs in the soil and from reentrainment of past smelter emissions. These comparisons indicate that the HEM can provide reasonable estimates of ambient concentration profiles and is suitable for estimating concentration of ambient arsenic at the remaining primary copper smelter sites at which the more sophisticated analyses were not used.

At smelter sites other than El Paso, Texas, EPA has compared its HEM predictions of ambient concentrations to available ambient data. Such comparisons were attempted at the Douglas, Ajo, Hayden, San Manuel, and Morenci copper smelter sites. For a number of technical reasons, including a lack of a significant quantity of data, the EPA was unable to make meaningful comparisons except at two sites—El Paso and Hayden. Although the model both over- and underpredicted measured concentrations, generally HEM provided reasonable, for the purpose of risk assessment, estimates of the inorganic arsenic concentrations to which people are being exposed. (The final risk estimates for each plant are listed in Table III–3, presented in the Consideration of Risks discussion.) In addition to the above, EPA meteorologists searched for more representative weather data for each of the smelter sites. For the Garfield, Utah, site, such data were identified and used in subsequent analysis. These analyses are presented in detail in Appendix C of the BID (EPA–450/3–83–010b).

Costs and Economic Analyses

Since proposal, EPA has revised its estimates of the cost and economic impacts to primary copper smelters of applying controls required by the proposed standard. For six of these smelters, copper companies supplied information concerning equipment and costs necessary for compliance with the proposed standard. The EPA reviewed the cost information supplied by the companies and analyzed the differences between these estimates and those made by EPA at proposal. For each of these smelters, EPA reviewed the reasonableness of the assumptions and reevaluated the control costs. The EPA also reviewed the comments of these copper companies on EPA's reanalysis of the control costs. The final estimates of control costs reflect consideration of all comments received throughout the public comment period.

Because of this reanalysis, the control cost estimates for converter operations and matte and slag tapping operations generally were increased over the estimates presented at proposal. Also, an economic analysis was performed for the 14 copper smelters using the revised cost and emission estimates to determine whether the standard would be affordable.

Basis for Standard

As discussed in Part I of this preamble, the risk management approach provides for a comprehensive assessment of candidate source categories, including an evaluation of current and applicable emission control alternatives, as well as the associated health risks, risk reductions, and associated costs and economic impacts. This section describes the application of this approach in the development of the standard for primary copper smelters and the rationale for extension of the standard to any new smelters. The factors considered in the development are discussed under two areas: (1) application of risk management approach including consideration of risks and control options; and (2) selection of final standard.

Application of Risk Management Approach

The standard that is being established today is based on the technology that, in the Administrator's judgment, provides the maximum reduction in risk to public health and is available and can be applied without causing widespread plant closure or imposing costs that far exceed any public health benefit. Accordingly, the Administrator considered a number of factors in selecting the final standard. The factors that were considered included the estimated emission reduction and remaining public exposure to inorganic arsenic, the level of the estimated health risks and uncertainties in these estimates, and the economic impacts of closure. The following sections describe the principal factors considered in this decision.

Consideration of Control Options. There is a range of potential control options that are applicable to low-arsenic primary copper smelters. These potential options are: (1) Converter fugitive emission controls; (2) matte and slag tapping fugitive emission controls; and (3) control of emissions during malfunctions. The evaluations of the potential control options are summarized below.

1. *Converter fugitive emission controls:* The standard proposed on July 20, 1983, would have required installation of converter secondary hoods consisting of horizontal air curtains and exhaust plenum, specific work practices to ensure effective capture by the hoods of converter secondary emissions, and venting of the captured secondary emissions to a control device for collection. A prototype air-curtain secondary hood already installed on the No. 4 converter at ASARCO-Tacoma has been evaluated and found to achieve an overall average capture efficiency of about 94 percent. Based on these test results, EPA estimates that the converter fugitive controls will reduce converter fugitive emissions by 90 percent (if captured emissions are controlled by a collection device with 96 percent efficiency (i.e., 90 percent = 94 percent

× 96 percent)). The potential emission reductions, in Mg per year, for existing copper smelters are summarized in Table III–1. The estimated annualized costs for the converter secondary controls at each of the existing smelters also are given in Table III–1. The estimated cost effectiveness ($/Mg) ranges from about $100,000 to $8 million per Mg at the 14 smelters.

TABLE III–1.—REVISED ENVIRONMENTAL AND COST IMPACTS ASSOCIATED WITH SECONDARY INORGANIC ARSENIC EMISSION CONTROL SYSTEMS FOR CONVERTER OPERATIONS

Smelter	Arsenic content of feed, percent	Arsenic feed rate to converters, kilogram per hour	Potential secondary arsenic emission, milligrams per year	Baseline secondary arsenic emissions, milligrams per year	Predicted secondary arsenic emission reduction, milligrams per year	Annualized control costs, $1,000	Cost per unit emission reduction, dollars per milligram as
ASARCO—El Paso: [1]							
(1)	0.5	98.9	98.3	13.3	[2] 3.7	379	102,430
(2)	0.5	98.9	24.6	3.4	[2] 1.0	379	379,000
ASARCO—Hayden	0.42	63.4	10.2	5.4	4.4	798	181,365
Kennecott McGill	0.033	9.3	10.1	10.1	9.2	2,201	239,240
Kennecott—Hayden	0.015	7.2	6.5	6.5	5.9	2,140	362,710
Phelps Dodge—Douglas	0.03	4.2	4.1	4.1	3.7	2,943	795,405
Inspiration—Miami	0.033	5.7	1.9	1.9	1.7	2,943	1,731,000
Phelps Dodge—Morenci	0.006	1.9	1.9	1.9	1.7	3,432	2,019,000
Kennecott—Utah (Garfield)	0.144	14.7	1.5	1.5	1.4	2,028	1,449,000
Phelps Dodge—Hidalgo	0.003	0.4	0.2	0.2	0.18	1,745	9,694,000
Tennesee Chemical—Copperhill	0.0004	0.7	0.65	0.65	0.58	1,278	2,203,000
Magma—San Manuel	0.006	0.6	0.55	0.55	0.50	3,979	7,958,000
Phelps Dodge—Ajo	0.015	0.8	0.52	0.52	0.47	1,562	3,323,000
Kennecott—Hurley	0.0005	0.8	0.46	0.46	0.42	2,296	5,467,000
Copper Range—White Pine	0.008	0.5	0.30	0.30	0.27	1,278	4,733,000
Total							

[1] El Paso figures represent secondary arsenic emissions based (1) on an emission factor for uncontrolled converter fugitive emissions of 15% of the arsenic contained in the primary converter process gases and, (2) on a 3.75% emission factor. These figures are estimated by EPA to represent the upper and lower bounds of uncontrolled converter fugitive emissions at ASARCO—El Paso.

[2] Emission reduction estimates calculated assuming no additinal control by the building evacuation system (BES) of emissions escaping the converter secondary hoods. Some control of these emissions by the BES may occur although the amount of control cannot be determined. To the extent that emissions escaping the converter secondary hoods are controlled by the BES, these emission reductions are understated.

2. *Matte and slag tapping fugitive emission controls:* The standard proposed on July 20, 1983, also would have required capture and control of matte and slag tapping secondary emissions from smelting furnaces with arsenic tapping rates greater than 40 kg/h (88 lb/h). All three smelters above this cutoff have installed localized hoods over matte and slag tapping operations and two have also installed efficient control devices to control the particulate matter emissions. The potential emission reductions and the costs to control the captured emissions at the smelters that are not currently controlling them are summarized in Table III–2. The cost effectiveness of these controls ranges from $330,000 to $7,300,000 per Mg for the 14 primary copper smelters.

TABLE III–2.—REVISED ENVIRONMENTAL AND COST IMPACTS ASSOCIATED WITH SECONDARY INORGANIC ARSENIC EMISSION CONTROL SYSTEMS FOR MATTE AND SLAG TAPPING OPERATIONS

Smelter	Arsenic process rate kilograms perhour	Potential Arsenic Emissions milligrams per year	Baseline Arsenic Emissions milligrams per year	Predicted Arsenic Emission Reduction milligrams per year	Annualized Control Costs $1,000	Cost per Unit Emission Reduction dollars per milligram as
ASARCO—Hayden	98.2	8.5	1.1	0	0	
ASARCO—El Paso	102.1	6.7	0.8	0	0	
Kennecott—Utah (Garfield)	40.4	2.0	2.0	1.7	1,914	1,126,000
Kennecott—Hayden	9.4	0.9	0.9	0.78	257	329,490
Inspiration—Miami	19.8	0.8	0.8	0.69	261	378,260
Phelps Dodge—Douglas	10.4	0.6	0.4	0.32	514	1,606,000
Kennecott—McGill	5.6	0.3	0.3	0.26	257	988,460
Phelps Dodge—Morenci	5.0	0.3	0.3	0.26	514	1,977,000
Phelps Dodge—Hidalgo	0.8	0.05	0.05	0.04	257	6,425,000
Phelps Dodge—Ajo	1.8	0.1	0.1	0.09	257	2,856,000
Kennecott—Hurley	1.6	0.1	0.1	0.09	265	2,944,000
Tennessee Chemical—Copperhill	1.1	0.09	0.09	0.08	257	3,213,000
Magma—San Manuel	1.0	0.08	0.08	0.07	514	7,343,000
Copper Range—White Pine	0.6	0.06	0.06	0.05	257	5,140,000

3. *Control of emissions during malfunctions:* Primary copper smelting operations can experience equipment malfunctions and process upsets that result in increased inorganic arsenic emissions. The effect of process upsets and equipment malfunctions on ambient arsenic concentrations has been demonstrated at the ASARCO-Tacoma smelter, where ambient arsenic concentrations have been monitored at the plant boundary for the past eight years. These monitoring data have shown that arsenic concentrations dramatically increased when increased fugitive emissions were released during upsets of the copper converters and when malfunctions of control equipment resulted in an increase in emissions. Therefore, EPA believes that all reasonably available control measures should be utilized to reduce the impact of malfunctions and process upsets on inorganic arsenic emissions.

The Administrator recognizes that malfunctions cannot be completely prevented. However, there are measures that can be taken to reduce emission rates significantly and to minimize the time during which increased emissions occur due to malfunctions and process upsets. Measures that can be taken to reduce emissions during startups, shutdowns, and malfunctions include repair of malfunctioning or damaged equipment as soon as possible and regular maintenance of potential sources of inorganic arsenic emissions to ensure that preventable breakdowns do not occur.

The emission reduction obtained by using such measures cannot be estimated. Furthermore, the control costs will vary depending on the nature of the malfunctions, specific equipment, and frequency of occurrence of

malfunctions and upsets. However, it is estimated that the costs of a program will be negligible.

Consideration of Risks. In reaching the decision on the standard, the Administrator considered of particular importance the magnitude of the estimated risks and the degree to which estimated risks can be reduced by available control measures. In addition, the Administrator also considered the general public comments on the reasonableness of risks to be an important element in consideration of risks.

Estimated Risk—Current estimated risks and the risks remaining after the application of available control technology for converter secondary emissions are summarized in Table III–3. These calculated risk estimates were developed using the procedure described in Part I of this notice, and a unit risk factor of $4.29 \times 10^{-3}/\mu g^{-m3}$. As shown in Table III–3 for each smelter, estimated maximum lifetime risks before application of controls range from 1.3×10^{-3} to 5.0×10^{-6} and the estimated annual incidence ranges from 0.38 to 0.0001 cases per year. In general, these estimates of risk are lower than those presented at proposal because of revisions to inorganic arsenic emission rate estimates resulting from public comments (for basis of revisions see Discussion of Comments—Emission Estimates).

TABLE III–3.—RISK ESTIMATES FOR PRIMARY COPPER SMELTERS

Maximum lifetime risk	Smelter [2]			Annual Incidence, cases per year		
	Baseline $\times 10^{-4}$	Converter Control [1] $\times 10^{-4}$	Reduction $\times 10^{-4}$	Baseline	Converter Control [1]	Reduction
ASARCO—El Paso:						
(1)	10	[3] 8	2	0.38	[4] 0.29	0.09
(2)	6	[4] 5	1	0.20	[4] 0.18	0.02
ASARCO—Hayden	[3] 10	[3] [4] 9	[3] 1	[3] 0.18	[3] [4] 0.16	0.02
Kennecott—Garfield (Utah)	13	12	1	0.06	0.05	0.01
Kennecott—Hayden	0.6	0.6	0	0.14	0.14	0
Inspiration—Miami	3	0.5	2.5	0.016	0.0054	0.0106
Phelphs Dodge—Douglas	1.9	1.0	0.9	0.0069	0.0034	0.0035
Kennecott—McGill	12	2	10	0.022	0.0081	0.0139
Phelps Dodge—Hidalgo	[5] 0.8	[5] 0.7	[5] 0.1	[5] 0.025	[5] 0.013	[5] 0.012
Phelps Dodge—Morenci	4	0.6	3.4	0.006	0.0015	0.0045
Phelps Dodge—Ajo	0.05	0.03	0.02	0.0001	0.0001	0
Kennecott—Hurley	0.8	0.2	0.6	0.0028	0.0009	0.0019
Tennessee Copper—Copperhill	2	1.7	0.3	0.0045	0.0038	0.0007
Magma—San Manual	1.2	0.5	0.7	0.0008	0.0003	0.0005
Copper Range—White Pine	0.6	0.1	0.5	0.003	0.0006	0.0027
	1.6	0.4	1.2	0.0026	0.0017	0.0009
	1.1	0.15	0.95	0.0004	0.0002	0.0002

[1] Control of converter fugitive emissions by a system consisting of a secondary hood with 94 percent collection efficiency.
[2] El Paso figures represent secondary arsenic emissions based: (1) on an emission factor for uncontrolled converter fugitive emissions of 15% of the arsenic contained in the primary converter process gases, and (2) on a 3.75% emission factor. These figures are estimated by EPA to represent the upper and lower bounds of uncontrolled converter fugitive emissions at ASARCO-El Paso.
[3] Risk estimates calculated using site-specific analyses (ISCLT/Valley model) and 3.75% emission factor.
[4] Risk estimates calculated assuming no additional control by the building evacuation system (BES) of emissions escaping the converter secondary hoods. Some control of these emissions by the BES may occur although the amount of control can not be determined. To the extent that emissions escaping the converter secondary hoods are controlled by the BES, these risk estimates are overstated.
[5] Risk estimates calculated using site-specific analyses (ISCLT/Valley model).

Effect of Control Options.—As described in the discussion on *Consideration of Control Options,* reductions in fugitive emission rates can be achieved with the air-curtain hoods for converter secondary emissions and controls on matte and slag tapping emissions. (Emission reductions for a malfunction and upset control program cannot be estimated.) Applying controls for converter secondary emissions would reduce the range of estimated maximum risks to between 1.2×10^{-3} and 3.0×10^{-6} from a range of 1.3×10^{-3} to 5.0×10^{-6}. The estimated annual incidence of lung cancer would be reduced to levels ranging from 0.29 to 0.0001 with application of converter secondary controls. (Before application of controls, the estimates of annual incidence ranged from 0.38 to 0.0001.) The application of controls to matte and slag tapping secondary emissions would achieve only negligible reductions in risk. Specifically, application of matte and slag tapping controls in addition to converter controls would not result in any additional reduction in maximum lifetime risk and would reduce the estimated annual incidence of lung cancer to levels ranging from 0.29 to 0.0001 (i.e. essentially no reduction).

Accuracy of Risk Estimates.—Although EPA believes that the use of quantitative risk estimates is an important element of the risk management process, the Agency recognizes and has attempted to make clear throughout this rulemaking that any such estimates contains inherent uncertainties. A part of this uncertainty arises from gaps in the health and technical data bases that (1) Cannot ever be filled; or (2) cannot be filled within the time and resource allocations available. Another part of this uncertainty derives from the simplifying assumptions that must be made to reduce the scope and detail of the analysis to manageable terms. The assumptions necessary to estimate inorganic arsenic health risks and the underlying uncertainties have led some commenters to suggest that the use of risk estimates is inappropriate in regulatory decisionmaking. Although the Agency acknowledges the potential for error in these estimates, EPA believes that, on balance, they are best estimates that the Agency can reasonably provide. Whether the risk estimates are higher or lower than the true risks to the public is unknown; although, in general, many of the assumptions which have been made tend to be conservative and, therefore, tend to ensure that the estimates are not significantly understated.

Selection of Standard

The EPA interprets the requirement of section 112 to establish emission standards at a level which "provides an ample margin of safety" as not implying that these standards must ensure that there is no remaining level of risk. Consequently, the standard being adopted today requires the use of control equipment and work practices that will reduce arsenic emissions and hence risks to the practical minimum. Equipment and work practices

requirements for the capture of converter secondary emissions are being established instead of an emission standard owing to the infeasibility of accurately measuring these emissions (see 49 FR 33132 for discussion of selection of format of the standard).

The standard reflects consideration of the magnitude of the risks, the costs and availability of further controls and associated risk reduction potential, and the potential societal impacts of regulatory alternatives. The consideration of the impacts, in particular, weighed the estimated risks achieved by and remaining after application of controls and their uncertainties against the costs to achieve the emission reduction and the potential for widespread closure. These considerations were described earlier and are summarized below.

The EPA assessed the need for the proposed converter secondary control requirements using the risk estimates and control cost estimates presented in Tables III–1 and III–3. For five of the six smelters that the proposed standard would have affected, EPA concluded that the costs were disproportionate to the risk reductions that could be obtained. Furthermore, the revised economic analysis showed that for two of these five smelters the control costs were likely to result in the smelters remaining permanently closed. The analysis of the converter control requirement also indicated for the sixth facility, ASARCO–EL Paso, that risk reduction could be obtained at a cost that does not present unreasonable economic and social effects. An additional factor considered in the assessment was that secondary hoods will be installed on all converters at ASARCO–EL Paso to comply with requirements in the Texas SIP for attainment of the NAAQS for lead. Since the costs of the controls are reasonable and the control can be implemented now, it is the Administrator's judgment that these controls should be applied at ASARCO–El Paso. Consequently, EPA revised the cutoff to distinguish between primary copper smelters where additional emission control is reasonable and those where additional emission control imposes costs that far exceed any public health benefit. The final standard, thus, requires installation and operation of the air-curtain secondary hoods and the use of work practices to ensure maximum capture of fugitive emissions at facilities where the converter arsenic feed rate is 75 kg/h (164 1b/h) or greater. Based on available information, this cutoff requires application of converter secondary controls only at the ASARCO–El Paso smelter.

The Administrator also concluded that it is appropriate to apply the standard to any new primary cooper smelters having average annual arsenic feed rates to the converters of 75 kg/h, or greater. Although no new smelters are projected to be built in the next 5 years, the standard is being applied to new smelters to ensure that any such sources are controlled. Should any new smelter be constructed, EPA will also evaluate the need for additional emission controls.

The EPA's assessment of the risk reduction achievable through application of controls on matte and slag tapping secondary emissions showed that reductions in annual incidence were less than 0.001 and that essentially no reduction in maximum lifetime risk would be obtained. The negligible reductions in risk are largely a result of the current low emission rates (less than 1–2 Mg per year). In addition, controls on matte and slag tapping operations are required by the Tripartite Agreement for ASARCO–El Paso, and no additional emission reduction would be achieved with a NESHAP requirement. Moreover, it is the Administrator's judgment that controls on matte and slag tapping operations at the remaining facilities would impose costs that are greatly disproportionate to the risk reduction achieved. Therefore, the proposed control requirement for matte and slag tapping operations is not included in the final standard.

The need for requirements to minimize emissions during process upsets and equipment malfunctions was not evaluated using a risk management analysis. Rather, the need was determined considering the availability of preventative measures and the potential for elevated ambient arsenic concentrations during such periods. Since EPA inspections of primary copper smelters identified areas where increased attention to maintenance and operations could minimize emissions due to equipment malfunctions, it is the Administrator's judgment that control measures are available and can be reasonably applied. Because the inclusion of a comprehensive list of all potential malfunctions in a regulation is impractical, the Adminstrator concluded that it would be more effective if the owner or operator were to identify potential malfunctions and upsets and the steps it would take to minimize emissions when they occur. Therefore, the final standard requires each affected smelter to submit a plan for EPA approval that outlines the specific steps that can and will be taken to reduce emissions from converter upsets and control equipment malfunctions. For the purpose of this standard, a malfunction is defined as any sudden failure of process or air pollution control equipment or of a process to operate normally that results in increased emissions of arsenic. A failure of equipment or a process upset caused entirely or in part by poor maintenance, careless operation, or other preventable upset condition or equipment breakdown, would be considered improper operation and maintenance. Improper operation and maintenance is a violation of the standard. The provisions pertaining to malfunctions that are discussed above do not excuse such violations.

Discussion of Comments

Comments on the proposed standard were received from copper companies, State and local air pollution control agencies, Federal agencies, environmental groups, the United Steelworkers of America (USWA), and private citizens. A detailed discussion of these comments and EPA's responses can be found in the BID, which is referred to in the ADDRESSES section of this preamble.

In comment letters and hearing testimony, general and specific comments were made on EPA's emission estimates, cost estimates, ambient exposure modeling and risk estimation, achievability of the standard and various technical aspects of the proposed standard. For discussion purposes, the comments have been grouped into the following areas: risk management approach, legal and policy, application of risk management approach, emission estimates, health effects, public exposure and health risk estimates, control technology, costs and economic impacts, monitoring requirements, and compliance provisions.

Risk Management Approach

Comments on the risk management approach include general comments on the methodolgy and BAT approach as well as comments on alternative risk management strategies considered for low-arsenic primary copper smelters. The comments on risk management and BAT approach, and alternative risk management strategies are considered in Part II of this notice, and will not be repeated here.

Legal and Policy

A few commenters argued that the proposed standard attempts to

circumvent Section 112 of the Clean Air Act; and that the regulation should not exempt emissions during startup, shutdown, and malfunctions from the control requirements. The commenters further argued that the regulation should encourage compliance, not provide a means and incentive for circumvention. The regulation has been revised as it applies to emissions during startups, shutdowns, and malfunctions. The final regulation includes maintenance requirements and timely repair of malfunctioning converters and pollution control equipment. The regulation also now explicitly requires that emissions of inorganic arsenic be minimized at all times.

The Sierra Club, State of New Mexico, and NRDC took issue with EPA's reliance on control measures required by SIP's, consent decrees growing out of violations of SIP requirements, and OSHA standards. The commenters thought these requirements were an inadequate substitute for Section 112 standards since the requirements can be amended and have greater flexibility in their enforcement. The Administrator believes that where standards established under separate authorities are effective in reducing emissions, redundant standards need not be established by EPA. The EPA establishes separate standards when there is evidence that either the control measures are not likely to remain in place or are unlikely to be properly operated and maintained. In the case of primary copper smelters, EPA reviewed the SIP requirements, the applicable OSHA standards and agreements, and the emission reductions achieved under these requirements. Based on this review, the Agency has concluded that adoption of redundant EPA standards would result in no emission reduction or other public health benefit beyound that which is occurring (or will occur). The EPA will continue to monitor controls and emissions at the smelters, and the standard can be later revised should this assessment prove to be incorrect.

The Sierra Club also recommended that EPA consider requiring capital investment set-asides that would be available for smelter capital improvements when EPA reviews the standard after 5 years. This would provide smelters that otherwise could not afford controls with a means of affording controls on their operations. The NRDC suggested that some form of financial relief be established to assist communities that are at particular risk from smelter inorganic arsenic emissions. Section 112 of the Act requires EPA to adopt standards that are protective of public health and places the obligation for controlling emissions on the source. The Administrator believes that requirements of capital investment set-asides and financial relief are not authorized by Section 112 of the Act and are beyond the scope of this rulemaking. Furthermore, EPA believes that since historical fluctuations in the price of copper was considered in the analysis of the affordability of controls, such a requirement is not necessary.

In their comments on the revised emission and cost estimates published for comment in the September 20, 1984, **Federal Register** notice, ASARCO, Phelps Dodge, and Kennecott requested that EPA also publish the revised risk estimates for comment. The Administrator considered this request, the extent to which the estimates have changed since proposal, and the potential effect of these changes on the final decision, and concluded that publication of the revised risk estimates for comment is not necessary. Moreover, the Administrator thought that the additional delay in issuance of the standard this would entail would not be in the public interest. Instead, to keep the public informed, EPA placed the revised estimates in the public docket (Docket No. A–80–40) and provided these commenters with copies of the revised estimates and their supporting documentation. The Administrator believes that adequate opportunity for public review of the risk estimates has been provided.

Application of Risk Management Approach

ASARCO and Kennecott commented that EPA's selection of smelters to be regulated at proposal was arbitrary and capricious since different cost-effectiveness cutoffs were used at different facilities. At proposal, smelters were selected for regulation of either converter fugitive emissions or matte and slag tapping emissions based on potential emissions and the costs to achieve the emission reduction. As discussed in Part II of this notice, several difficulties were encountered with this approach and the basis for selection of the appropriate level of control has been revised. Decisions on the level of control are now based on consideration of the risk reduction that can be obtained as well as the costs to achieve that reduction and the economic impacts of the control requirement. The Agency believes that the present risk management approach is consistent with the intent of Section 112, and it responds to many concerns of commenters.

Emission Estimates

On two occasions during the public comment period, EPA published estimates of arsenic emission rates for the low-arsenic smelters. Comments were received from several copper companies on the two estimates. The copper companies' comments on the emission estimates presented in the July 20, 1983, **Federal Register** notice were that EPA had overestimated arsenic emissions from several of their smelters. Comments of this nature were received regarding ASARCO's El Paso and Hayden smelters, Kennecott's Hayden, McGill, and Garfield (Utah) smelters, and Phelps Dodge's Morenci and Ajo smelters.

For each of these smelters, EPA reviewed the information on which the proposal emission estimates were based in light of the comments submitted. Where judged appropriate, revisions to the proposal estimates were made. These revised estimates were presented for public comment in the September 20, 1984, **Federal Register** notice (49 FR 36877). Additional comments were received regarding these revised emission estimates. In general, the copper companies thought that EPA's estimates still overstated the total amount of arsenic being emitted or the amount emitted from the converter building. The EPA reviewed these additional comments and determined that with the exception of Phelps Dodge-Hidalgo, additional revisions to the estimates were not warranted. The final emission estimates for the low-arsenic smelters are given in Tables III–1 and III–2. All of the final estimates of inorganic arsenic emissions are lower than the proposed estimates with the exception of the Kennecott-Hayden estimates, which are unchanged. The primary basis for revision of the estimates is summarized below for each smelter and discussed in detail in the BID for the promulgated standard (EPA–450/3–83–010b).

ASARCO-El Paso: The EPA concluded from a review of comments and supporting documentation that the estimated capture efficiencies for the building evacuation system at El Paso should be increased to 90 percent (from 75 percent) and that less converter secondary emissions may be generated than previously estimated due to use of a computerized gas management system; however, the amount of emission reduction is unknown. Therefore, a range of emission estimates was developed for this smelter, assuming 90 percent capture efficiency and converter secondary emission factors of 3.75 and

15 percent of the converter primary emissions, and was published in the September 20, 1984, **Federal Register** notice. ASARCO's comments on the range of emission estimates did not provide any information on the effect of the computerized damper system on fugitive emissions. Therefore, EPA continues to believe that the range of emission estimates best characterizes converter secondary emissions at ASARCO-El Paso.

ASARCO-Hayden: Based on a review of comments and material submitted regarding the estimates presented in the July 20, 1983, **Federal Register** notice, EPA determined that its estimate of the smelting furnace arsenic volatilization rate should be increased (from 49 to 78 percent), and converter secondary emissions decreased (from 15 to 3.75 percent of the primary converter process emissions). The revised percent arsenic volatilization rate falls within the range of values reported in the literature and is the rate predicted by the furnace designer (INCO) for feed materials used at the Hayden smelter. Additionally, the converter fugitive emission factor was revised to reflect the performance of high-draft primary hoods such as the hoods on the No. 1 and No. 2 converters at ASARCO-Tacoma, which the primary hoods for the converter operations at Hayden closely resemble. Since ASARCO did not provide any rationale for its estimates of 75 to 80 percent capture efficiency for the existing secondary hoods, the original estimate of 50 percent efficiency based on EPA observations was retained.

In their comments on the revised emission estimates, ASARCO disagreed with EPA's assessment of emissions escaping capture by the primary hoods, the capture efficiencies achieved by the existing secondary hoods, and the capture efficiencies air curtain secondary hoods would attain at this smelter. The EPA considered these comments and concluded that to revise the emission estimates further would require inspection of the facility and additional information. Because EPA believes that further reductions in the emission estimates achievable would not affect the standard, EPA decided this effort would not be a productive use of resources and the estimates should not be revised. If EPA were to consider revising the standard so as to cover this facility, the capture efficiency achieved by the existing secondary hoods would be re-evaluated and the specific factors that might reduce the capture efficiency of air curtain secondary hoods would be evaluated.

Kennecott-Hayden: After consideration of Kennecott's comments on the emission estimate for this smelter, EPA has not made any significant changes to the arsenic material balance. The overall arsenic material balance information provided by Kennecott was very similar to the mass balance used by EPA at proposal, with the exception of the estimates of stack emission rates and fugitive emission rates from smelter equipment. Since Kennecott did not identify the basis for their estimated stack emission rate of 0.23 kg/h (0.5 lb/h) and EPA's estimate is derived from emission test data for control devices similar to the device used at this smelter, EPA retained its estimated stack emission rate of 3.2 kg/h (7 lb/h). Further, since the potential reduction in fugitive inorganic arsenic emissions was not quantified by Kennecott, EPA has no basis for estimating the effects of the smelter improvements on fugitive emissions of inorganic arsenic. This smelter is currently closed.

Kennecott-McGill: In response to comments that the proposal arsenic balance was based on atypical concentrates that will not be smelted at this facility in the future, EPA revised the arsenic balance to reflect use of concentrates used by other low-arsenic throughput toll smelters. In comments on the revised estimates, Kennecott reiterated its belief that planned controls for converter fugitive emissions should be considered in determining emissions. The EPA considered this comment and concluded that the planned controls should not be included in the estimate of baseline emissions. Specifically, EPA believes that since the anticipated controls are not included in a Federally enforceable requirement and these controls are not yet firmly enough established to be assumed operational before application of this NESHAP, the control should not be considered in estimating baseline emissions. This smelter is currently closed.

Kennecott-Utah: The arsenic material balance was revised to reflect changes in process operations and more accurate material assays. The smelter arsenic material flow information used by EPA at proposal for developing the arsenic balance was obtained directly from information submitted by Kennecott in 1978 and 1983. In its comments on the estimate presented in the July 20, 1983, notice of proposal, Kennecott supplied a revised balance for the Utah smelter that reflected small changes in process operations and more accurate material assays. In these comments Kennecott also stated that in-house testing demonstrated that the capture efficiency of the converter secondary hoods is more than 90 percent, indicating EPA's estimate of 50 percent capture efficiency is too low. This comment was restated in Kennecott's comments on the revised emission estimates. The final emission estimate for this smelter only reflects the basic changes to the balance suggested by Kennecott. The final arsenic balance and emission estimate retains EPA's estimate of 50 percent capture efficiency by the converter secondary hoods. Kennecott's claim of greater capture efficiency for the converter secondary hoods was not accepted because the analysis failed to consider the other points in the hot metal building housing the converters where emissions could escape to the atmosphere, such as the roof monitor on the hot metal side of the building and windows and doors in the building. The EPA also considered that even if the existing converter secondary hoods were to achieve 90 percent capture efficiency, the difference in the estimate of low-level fugitive emissions would result only in small changes in risk estimates, and would not affect the promulgated standard.

Phelps Dodge-Morenci: The EPA revised the arsenic material balance for this smelter using information submitted by the company after proposal. The revised arsenic distribution is based on recent sampling at the smelter, while the balance presented at proposal was based on a theoretical distribution provided by the company. Consequently, the basic changes were accepted by EPA as more accurately predicting inorganic arsenic emissions and were incorporated into the arsenic balance.

Phelps Dodge-Hidalgo: The EPA revised the arsenic material balance for this smelter using information submitted by the company in their comments on the September 20, 1984, **Federal Register** notice. The revised arsenic distribution is based on the arsenic content of copper concentrates now being processed at the smelter (now 0.005 percent arsenic, or less). Consequently, EPA revised the arsenic balance based on this new information. The revised emission estimate is lower than the estimate presented at proposal.

Phelps Dodge-Ajo: The arsenic balance was revised to reflect the arsenic content of feed materials expected to be smelted in the future and the use of an unmodified reverberatory furnace instead of an oxy-sprinkle modified furnace. These changes were made because of information provided by the company and because of changes

in the consent decree affecting this smelter. The company also thought that the arsenic balance should reflect the fugitive emission controls on matte and slag tapping operations at the Ajo smelter. The EPA did not revise the arsenic balance regarding matte and slag tapping operations for two reasons. First, the fugitive emission controls consist of only an emission capture system (no collection or removal system), so no emission reduction is achieved. Second, the risk modeling already considered the height of release of these emissions.

Other comments on emission estimates were made by the USWA. In its comments, the USWA suggested that no set of emission estimates should be considered final and definitive. The regulation should provide for a continuing examination of inorganic arsenic emissions from all sources at the smelters, in order to identify opportunities for additional control. In particular, the USWA thought that attention should be given to intermittent operations and to process upsets. The EPA agrees that estimations of emissions from a source should not be considered final, and that continuing examinations, as circumstances warrant, should be carried out in order to have up-to-date and accurate emission information on record. It was for this reason that the Agency's estimates at proposal were re-evaluated after receipt of public comments and the revised estimates were published for public comment. Several emission estimates were revised to reflect new information on feed inorganic arsenic concentrations, smelter configurations, and process data. The final regulation was issued after considering the best information available. The regulation will be periodically reviewed after promulgation and changes made as appropriate to account for any new information relating to arsenic emission sources at smelters in this source category. In addition, the final regulation includes provisions that require steps to be taken to minimize emissions during converter upsets and emission control equipment malfunctions.

Health Effects

Phelps Dodge, Kennecott, and ASARCO stated that Section 112 was intended to apply only when emissions pose a significant risk of increased mortality or serious irreversible, or incapacitating reversible illness. Phelps Dodge felt that the evidence presented to EPA has established that inorganic arsenic emissions from U.S. primary copper smelters do not present significant risks. The evidence that the companies presented in support of their position included both (1) community and certain occupational studies that did not detect lung cancer risks associated with exposure levels at or greater than those occurring near primary copper smelters, and (2) evidence that predicted concentrations near the smelter are less than those found in some cities in the U.S.

As discussed in Part II, Risk Management Policy and General Health Issues, of this preamble, this evidence has not proven to the Agency that primary copper smelters pose insignificant or nonexistent risks to the exposed public. (The commenters did not debate that inorganic arsenic exposure was occurring.) The community and occupational studies generally do not have the statistical power to detect significant increases in lung cancer at the exposure levels that are predicted by the Agency's models. Although they did not detect increases in risk, such studies could not conclude with a high degree of statistical confidence that risk increases were not present. By applying the best information available and using a scientifically creditable exposure/risk relationship that was based on occupational data, EPA has estimated increased lung cancer risk to the public surrounding the smelters.

These three commenters also compared the ambient arsenic concentrations caused by the smelter's emissions to the highest arsenic concentrations measured in other places in the U.S. According to EPA's estimates and ambient monitoring data, the maximum concentrations of arsenic to which people may be exposed near smelters ranges from 0.003 to 0.3 $\mu g/m^3$ and the highest annual concentrations reliably reported in areas not affected by smelters occurred in Ohio and Atlanta, Georgia, where concentrations are about 0.01 $\mu g/m^3$. The comparison indicates that arsenic concentrations in most areas are well below the predicted and measured concentrations near copper smelters.

In the Administrator's judgment, primary copper smelters are posing significant risks, but in light of the level of the estimated risks and the impacts requiring further controls, most of those risks are not unreasonable.

Public Exposure and Health Risk Estimates

Commenters on the proposed standards for high- and low-arsenic primary copper smelters expressed both general and specific concerns regarding the exposure and risk estimates for primary copper smelters. The general comments included comments on the linear nonthreshold assumption, the 70-year residence assumption, the air quality modeling out to distances of 20 km (12 miles), and the failure to consider health effects other than lung cancer. The EPA's consideration of these general comments is discussed in Part II, Risk Management Policy and General Health Issues, of this preamble. The responses to specific comments on risk estimates for primary copper smelters are given in this section.

Two commenters who had carefully studied EPA's risk assessment results criticized the fact that the computerized exposure model positioned portions of exposed populations at points where people could not possibly live. For instance, in the Phelps Dodge-Ajo smelter analysis, people had been assigned to uninhabited areas near the smelter such as tailings ponds, slag heaps and waste dumps. The EPA is aware that the computer model may assign exposed people to unlikely places near the smelter. This results from the format of the census data. Of necessity, the census data are provided to EPA in a summarized form so that the data base will not overload computer storage capability. Instead of providing records on the location of each family dwelling, the U.S. Census Bureau gathers a number of people (up to 2,000 people) and locates this group of people at one point called a population centroid. Of course, most if not all of the people in the group do not acutally dwell at this population centroid. Therefore, the computer program, when calculating exposure, considers that groups of people do not live at a single point and, using a preselected formula that more realistically reflects the actual population distribution, assigns people to nearby points on the concentration profile grid. Generally, this approach causes the model's risk estimate for the most exposed person to increase since "spreading" out the population over a broader area increases the likelihood of people being placed nearer points of maximum concentrations. After the risk estimates are calculated, EPA staff review the computer printouts to ensure that the estimation of the risk to, and the location of, the most exposed individual is reasonable. This judgment is based on a study of small-scale U.S. Geological Survey (USGS) maps and discussions with Agency personnel who have visited the plants. For calculating annual incidence or aggregate risk for a large number of nearby people, such careful checking becomes very difficult to perform. When the Agency has attempted to make such corrections in

the modeling, the results have not significantly changed. The computer program simply assigns people in a more reasonable spot where the concentrations may be larger or smaller than at the centroid location. With larger populations, the corrections result in about equal positive and negative changes to the estimated risks and thus balance out. With smaller populations, the Agency reviews the reasonableness of the exposure results and where deemed necessary, makes corrections by hand calculations. The Administrator believes that the risk assessment techniques used as a basis for today's rulemaking produce reasonable exposure and risk estimates given all the other uncertainties that are associated with the risk assessment process.

Phelps Dodge commented that the location coordinates for the Ajo smelter that EPA presented in the background document for the proposed standard are inaccurate. In response, EPA checked its location data on a small-scale USGS map and has made the location correction (less than a kilometer shift in position). The current risk assessment is based on the new location data.

Several of the primary copper smelter companies said EPA should present a table for each smelter that provides the distribution of levels of exposure. (The EPA only showed this information for all smelters as a group, not for individual smelters.) They said that without this information, the public is not able to replicate or check the accuracy of EPA's exposure assessment. Therefore, EPA has expanded its risk assessment portion in the BID for primary copper smelters (and the other source categories as well) and has included in the docket (Docket No. A–80–40) copies of the exposure assessment computer printouts.

Two commenters criticized the appropriateness of meteorologic date EPA used in dispersion modeling. One commenter stated that EPA did not use accurate meteorological data. A representative of Phelps Dodge commented that the Tucson meteorologic data used to model Phelps-Dodge smelters in Ajo and Morenci, Arizona, were from a location over 160 km (100 miles) from these smelters, and the data are not representative of conditions at the smelters. He suggested that local meteorologic data should be used. Another commenter said the model, based on Tucson data, estimates the highest concentrations to the northwest and west northwest of the smelter. The commenter noted that meteorological data show Ajo's winds are primarily from the the south so the highest concentrations should be directly north of the smelter. We claimed areas north of the smelter are largely uninhabited. These two commenters believed using the Tucson data caused overestimation of exposure. One also believed assumptions about atmospheric stability should be avoided, and soundings should be taken at different heights to measure stability.

ASARCO also claimed that the Tucson data were not representative of metorological conditions near its smelter at Hayden. ASARCO commented that Tucson was over 100 km (60 miles) from Hyden, and is in a broad valley; whereas Hayden is mountainous with a narrow valley, so wind patterns would be different. ASARCO also commented that the El Paso smelter is on the other side of a ridge from the meteorologic station EPA used to model that smelter, so the data are not representative. It also cautioned that meteorologic conditions at the elevation of a tall stack may be different from those at ground level. Kennecott commented that the Tucson airport was located too far from their Hayden smelter for the meteorologic data to be representative.

As discussed under the section entitled Additional Analyses, EPA made several efforts to improve the Agency's estimates of risks near primary copper smelters. However, the analysis at only three plant sites (El Paso, Douglas, Garfield) were affected by the improvements. At other primary copper smelter sites, the Agency was unable to obtain more representative meteorological data in a format that could be used by EPA's computer models. These other smelters are generally located in rather sparsely populated areas and are not near a National Weather Service station that would collect and record the necessary surface weather observations. As the commenters point out, the selected surface weather observation (meteorological data) may not be representative of the smelter area. In this case, the Agency must use the best available information to perform its analysis. Therefore, since more representative meteorological data were not available for some smelter sites, EPA tried to obtain ambient arsenic concentrations data for comparison with the modeled exposure estimates. The following discussion explains the basis of the final exposure estimates.

The commenters suggested that the estimated risks at sites where the Agency may be using unrepresentative meteorological data are overstated. When applying the more local or representative meteorological data, EPA's experience has shown that the risk estimates may increase or decrease and because of the complexity of the dispersion and exposure models, the changes are difficult to predict in advance of completing the new analysis.

Several commenters believed the dispersion model overestimates ambient arsenic concentrations. Some commenters said EPA should have measured background arsenic present when smelters were not operating and compared this with ambient arsenic concentrations measured when the smelters were operating to determine the extent to which smelters contribute to ambient arsenic levels. These commenters and others felt EPA should base its exposure estimates on measured ambient concentrations rather than dispersion modeling results.

Some commenters presented ambient monitoring data and compared it to the dispersion model predictions in an attempt to show that the dispersion model is inaccurate. Phelps-Dodge submitted ambient arsenic concentration data obtained using a high-volume air sampler for two periods: January through April 1982 and January through April 1983. Measurements were taken at the Ajo town plaza. During the first period the Ajo smelter was operating normally. During the second period, the smelter was closed. These data were used to arrive at an estimate of 0.0014 $\mu g/m^3$ as the level of ambient arsenic concentration caused by the smelter at the plaza. Phelps-Dodge commented that EPA's model estimated maximum ambient concentrations 150 times greater, and average exposures 40 times greater than these measured concentrations.

Some commenters claimed ambient arsenic levels in Morenci are 10 percent of the levels reported by EPA in the proposed notice. ASARCO submitted quarterly concentrations of arsenic measured using ASARCO's low-volume air sampling network around El Paso and Hayden in 1982 and 1983. The commenters said the mean measured concentration at the Hayden fire station (near the town's population center) is 0.14 $\mu g/m^3$. According to ASARCO, this measurement can be multiplied by 1.67 to yield an estimate similar to that which would be obtained using a high-volume air sampler. ASARCO concluded that EPA's dispersion model estimates a concentration of about 0.417 $\mu g/m^3$ for this location, which is twice the measured concentration.

Some commenters criticized EPA's dispersion model because it does not consider terrain. They said terrain is not

level around copper smelters, in particular Phelps Dodge's Ajo smelter, ASARCO's Hayden smelter, and ASARCO's El Paso smelter. One commenter added that EPA's background document for the proposed standard states that failure of the model to consider terrain will result in underestimation of exposure in areas with uneven terrain. The commenter said this is not always the case. He said measured concentrations in Hayden were lower than modeled concentrations.

As mentioned in the section entitled Additional Analyses, EPA has made serveral changes to improve or check the exposure and risk estimates. (See Appendix C of the BID [EPA–450/3–83–010b] for a detailed presentation of the risk assessment.) In addition to significantly reducing some of the smelter's emission estimates used in the exposure model, comparisons between predicted and measured values have been made to demonstrate the exposure model's potential for estimating ambient arsenic concentrations. Because it generally does not provide a site-specific analysis that accounts for local terrain features and meteorology and because there are other sources that emit arsenic into the atmosphere, EPA expects that exposure model to both over- and underpredict measured concentrations; but, on the average, the model should slightly underpredict the measured values. As a result of a computer data base search, limited ambient arsenic data near the ASARCO-Hayden, Inspiration-Miami, Magma-San Manuel, Phelps Dodge-Ajo, Phelps Dodge-Morenci, and Phelps Dodge-Douglas sites were identified, while at the ASARCO–El Paso site, the Agency located a number of arsenic monitoring sites operated by the State Agency and ASARCO.

For El Paso, EPA's computer exposure model consistently underpredicted concentrations at 20 monitoring sites (included six company sites). At eight of these sites, the predicted concentrations were within a factor of two of the measured data and all but one of the remaining estimates were within a factor of ten of the measured data. At the one remaining site, EPA has underestimated the arsenic concentration by a factor of 40. (However, the data at this one site were collected in one year only and did not meet the air quality guidelines for calculating a representative annual average.) The amount by which EPA's exposure model underpredicted the measured concentration was higher than what EPA would consider a natural background concentration. In an attempt to improve the correlation between predicted and measured concentrations, EPA also performed a site-specific analysis of El Paso. This site-specific analysis used on-site meteorology and considered terrain features. However, the site-specific analysis also provided predicted concentrations that were lower than the measured concentrations. There are three possible explanations for this underprediction. First, as the commenters have suggested, there is some fraction of the arsenic concentration that comes from other sources, such as naturally occurring arsenic in the local soil. Second, studies have shown that pollution from past plant emissions has increased pollutant concentrations in the surrounding soil and this condition allows the reentrainment of arsenic into the atmosphere. Third, the Agency may have underestimated emissions from the plant. Some combination of reentrainment of local soil and underestimation of the plant's emissions is the suspected but undocumented cause of the underpredictions.

At the ASARCO-Hayden and Phelps Dodge-Douglas primary copper smelter sites, EPA's analysis indicated that the exposure model both over- and underpredicted the measured concentrations at those monitoring sites where meaningful comparisons could be made between predicted and measured concentrations. However, at the State-operated monitors near the smelters, the calculated long-term concentrations were based often on individual measurements that were below the minimum detectable level (MDL) of the analysis technique. Rather than record zeros, EPA assumed that the actual concentration is one-half the MDL and used that value in the analysis. Thus, when there are a number of measured concentrations below the MDL in the data base, the calculated long-term concentration become more uncertain. When considering this uncertainty of the available ambient data at the Phelps Dodge-Douglas and the ASARCO-Hayden sites, it appeared that on balance the exposure model was making reasonable if not somewhat of an overprediction of the ambient concentrations.

At those remaining primary copper smelter sites (Inspiration-Miami, Phelps Dodge-Ajo, Phelps Dodge-Morenic, and Magma-San Manuel), much of the ambient data showed concentrations below the MDL and at best, provided only a qualitative comparison to confirm the model's predicted concentrations. At the Phelps Dodge-Douglas site, EPA performed an additional site-specific analysis that was similar to that performed at the ASARCO-El Paso site. Although the Agency believes that the site-specific analysis will generally produce at any site the best estimate of ambient concentrations that occur as a result of a source's emissions, EPA's human exposure model provides ambient concentration estimates that are very similar to the site-specific analysis results and the available ambient data. (See Appendix C of the BID of a detailed discussion of the modelling.)

There were several primary copper smelter sites for which no nearby ambient data could be found. When considering the results of the model confirmation efforts described above, the Administrator believes that the ambient concentration estimates as generated by HEM are reasonable and represent the best estimates that can be provided within the limited resources available.

Several commenters said that some populations are exposed to emissions from two or more smelters. They reasoned that since the model does not consider the combined effects of the emissions from plants with overlapping emissions, exposure and risk are underestimated. This possibility, as identified by the commenters, could occur in the Hayden area since two primary cooper smelters are located in this town. The EPA agrees that in this case, there is a potential for the risk assessment to underestimate the maximum individual risk to the population exposed to both smelter's emissions. Because the ASARCO-Hayden facility emissions dominate the concentrations, the additional risk (concentration) from Kennecott-Hayden has been shown to be small, about 16 percent of the ASARCO-Hayden maximum individual risk. The commenter has made a valid point, but the maximum individual risk estimates that account for the overlapping of the ambient concentrations are essentially the same as the maximum individual risk based on only concentrations resulting from the ASARCO-Hayden emissions. To confirm this result, EPA modified the exposure model and performed as assessment that considered the combination of the two plants. The results substantiated the earlier estimates. For the annual incidence, the combined smelter exposure assessment indicated that the town of Hayden's annual incidence is simply the sum of the annual incidence associated with each plant's operations.

Some commenters said that primary cooper smelter risks were overestimated because EPA has applied a number of conservative assumptions that lead to worst case risk estimates. The EPA agrees with the commenters that some of the Agency's assumptions are conservative (e.g., the exposed people remain at their residences for a lifetime). However, in several cases, the assumptions are generally not conservative. For example, the assumption of flat terrain may result in under-prediction of ambient concentrations for those located in areas with local terrain features elevated above the source.

Upon review of the assumptions and their associated uncertainties, which are discussed in Part II of this notice, the Agency cannot demonstrate that the analysis provides an overestimate, a best estimate, or an underestimate of actual risks. Although not able to quantify all the uncertainties, the Agency believes that its risk assessment provides reasonable if not somewhat conservative estimates and is the best estimate that the Agency can reasonable make. A number of commenters have made suggestions for improving the risk estimates, as mentioned in earlier sections. The EPA has followed their suggestions where feasible (e.g, use of nearby ambient data to confirm the exposure model's prediction).

Two smelter companies made their own risk calculations, which they believed to be more accurate than those EPA presented in the BID for the proposed standard (EPA 450/3–83–010a). Their results are summarized in Table III–4. At two sites (Hayden and McGill) EPA's estimated risks are every similar to those estimated by the company. At the two remaining sites (Garfield and Ajo), there was substantially less agreement. The footnotes provide possible reasons for the differences in results. Since the standard does not regulate any of these four smelters, the companies' lower risk estimates have no effect on the Administrator's decisions.

TABLE III–4—COMPARISON OF RISK ESTIMATES AS MADE BY THE SMELTER COMPANIES AND THE EPA

Smelter	Baseline—maximum individual lifetime risk		Baseline—annual incidence individual risk (cases/yr)	
	Company	EPA	Company	EPA
Phelp Dodge-Ajo (a)	$0–6\times10^{-5}$	2×10^{-4}	0–0.00044	0.0045
Kennecott-Utah (b)	$0.8–5\times10^{-6}$	6×10^{-5}	0.0006–0.003	0.14
Kennecott-Hayden	$4.5–27\times10^{-4}$	3×10^{-4}	0.0017–0.025	0.016
Kennecott-McGill	$1.7–13\times10^{-3}$	4×10^{-4}	0.005–0.1	0.006

(a) Phelps Dodge's analysis was based on limited sampling data collected over 3 months at one site that was located approximately 1 km from the plant. The EPA's analysis was based on air dispersion models that estimate long-term (over several years) concentrations.
(b) The EPA's risk analysis considered population exposure out to 50 km, while Kennecott's analysis went out to 20 km. There was a significant number of people that lived between 20 and 50 km of the plant. This factor may account for the difference in EPA's and Kennecott's estimates of annual incidence.

Consideration of Transboundary Air Pollution. Two commenters noted that EPA's risk assessment did not consider any Mexican populations that are being exposed to emissions from U.S. primary copper smelters located near the Mexican border. Also, commenters noted that EPA's analysis did not consider U.S. public exposure to emissions from the Mexican primary copper smelters located near the border. In regard to the first comment, the Administrator has considered the potential exposure to Mexican citizens from the U.S. smelters (El Paso and Douglas) in his decisionmaking. At the present time, the Agency does not have any Mexican census data in a form similar to that supplied by the U.S. Census Bureau, so the Agency was unable to perform its standard exposure analysis to evaluate exposures in Mexico. Based on the very limited data available, the Agency did attempt a crude estimate of Mexican exposure near the Douglas smelter and found, based on this initial calculation, that exposure was small enough so as to not significantly change the risk assessment results presented in this notice. Similar estimation techniques indicated that the Mexican population exposure due to emissions from the ASARCO-El Paso smelter is more substantial, but not great enough to justify any tightening of the standard.

In regard to U.S. public exposure to emissions from Mexican smelters, the Administrator notes that he lacks authority to regulate these emissions. However, the United States and Mexico have entered into an "Agreement on the Environment in the Border Area" (signed August 14, 1983; entered into force February 16, 1984). Under this agreement, delegations from the two countries have formed a technical study group on air quality that will deal with smelting operations on both sides of the border. Arsenic emissions from the smelters may be considered by the technical study group.

Control Technology

Numerical emission limit. The American Lung Association (ALA) and NRDC commented that the proposed emission limit of 11.6 mg/dscm (0.005 gr/dscf) for the control device treating converter secondary emissions or smelting furnace tapping emissions does not reflect the control levels achievable by best available technology. Hence, the commenters thought the standard would allow application of less than best systems. The NRDC further commented that the emission limit should be established considering the best control efficiencies achieved by well-designed and -operated systems, not the worst efficiencies, and that EPA had not explained why the emission limit was based on the highest emission rate rather than the average. In contrast to NRDC's and ALA's position, ASARCO and Phelps Dodge argued that the emission rate had not been demonstrated to be achievable and the standard should be 50 mg/dscm (0.022 gr/dscf) to allow use of existing electrostatic precipitators and fabric filter collectors. ASARCO cited test data for other smelters and a retest of the El Paso converter building fabric filter collector to support its argument. The average outlet particulate matter concentration for these tests varied from 0.2 to 126 mg/dscm (0.001 to 0.05 gr/dscf). Phelps Dodge also cited EPA and company emission test data showing average particulate matter concentrations greater than 11.6 mg/dscm.

The Administrator does not agree with the commenters that the standards are either too lenient or so restrictive as to be unachievable. As explained at the time of proposal, to select the emission limit, EPA reviewed the particulate matter source test results for the control devices judged to represent best technology. The available source test data for systems used to treat converter secondary emissions consisted of one series of three test runs conducted on the fabric filter collector treating emissions from the El Paso converter building. The particulate matter emissions from the control device outlet ranged from 1.1 to 11.6 mg/dscm. The average value for the three runs was 5.1 mg/dscm (0.002 gr/dscf). The EPA believes that because an emission level of 11.6 mg/dscm (0.005 gr/dscf) is not an unexpected result during an emission test of this technology, this is the

appropriate level for the standard which is not to be exceeded. It is EPA's judgment that the 11.6 mg/dscm (0.005 gr/dscf) emission limit requires a well-designed, -operated, and -maintained control device and does not allow use of less effective control devices.

The level at which a standard should be set is a matter of judgment. As discussed above, the numerical emission limit for converter secondary emissions is based on the test results for only one control device. Because of the limited amount of data, it is EPA's judgment that a standard reflecting the lowest level or even the average level measured would not allow any margin for differences among facilities and control devices or for sampling and analytical errors in measurement of emissions. To provide this margin, the standard is based on the highest outlet concentration that was measured.

The Administrator considered the data and arguments presented by ASARCO and Phelps Dodge and concluded that it would not be appropriate to establish an emission limit of 50 mg/dscm (0.022 gr/dscf) as suggested. In reaching this conclusion, the data base for the standard, the data cited by both companies, and data for other source categories which have emissions comparable to converter secondary emissions were reviewed. This review is summarized here and presented in the BID for the promulgated standard (EPA–450/3–83–010b). Emission test data for the ASARCO-Tacoma smelter and other facilities show that uncontrolled converter secondary emissions contain less than 50 mg/dscm (0.022 gr/dscf) particulate matter. Thus, an emission limit of 50 mg/dscm (0.022 gr/dscf) would likely require no control of converter secondary emissions.

Review of the test data submitted by ASARCO and cited by Phelps Dodge showed that the data do not demonstrate that the proposed emission limit is unachievable. Specifically, with the exception of the test conducted on the El Paso converter building control device, the data were for emission streams which are not comparable to converter secondary emissions (e.g., higher inlet concentrations and significantly different particle size distributions) and for control devices with different design specifications. Therefore, the performance of these control devices is not considered to be indicative of the expected performance of a well-designed and -operated best system of emission reduction controlling converter secondary emissions. ASARCO's August 1983 test of the El Paso converter building fabric filter collector also does not demonstrate the unachievability of the emission limit. The EPA's review of this test report found that the condition of the control device was not reported. In addition, the concentration measured at the outlet of the control device exceeded the concentration measured at the inlet during EPA's test program in 1978. Combined, all of these factors suggest that the system tested by ASARCO in 1983 differed significantly from the system tested by EPA in 1978, and that at the time of ASARCO's tests the control system probably was not properly maintained or operated.

The EPA believes that the emission limit of 11.6 mg/dscm (0.005 gr/dscf) is further demonstrated to be achievable by the test data available from other source categories which have emissions similar to converter secondary emissions and use comparable control devices. Electric arc furnaces (EAF's) in the steel industry have particulate emissions with size distributions and concentrations similar to those of converter secondary emissions. Emission test data for well-controlled EAF's show that emission rates of less than 11.6 mg/dscm (0.005 gr/dscf) are consistently achieved (EPA–450/3–82–002a). Consequently, EPA has established an emission of 12 mg/dscm (0.0052 gr/dscf) in the new source performance standard for EAF's in the steel industry.

An additional ASARCO comment on the achievability of the 11 mg/dscm (0.005 gr/dscf) standard for converter secondary emissions was that it is invalid to argue that the standard is achievable merely because the concentration of the inlet fugitive emission gas stream is low since there is no direct relationship between the inlet and outlet concentrations of arsenic-containing particulate matter. To support this comment, ASARCO cited emission data for the arsenic plant fabric filter collector at the Tacoma smelter that seemed to show that the highest outlet concentrations were associated with the lowest inlet concentrations. The Administrator considers the low inlet concentration to be relevant to selection of the emission limit for several reasons. Inlet concentration is considered along with desired emission rate and other gas stream parameters in the design of a control device. Although particulate control devices do not tend to operate with constant efficiency over the entire design range of conditions, they will achieve a minimum collection efficiency when operated within the design range of conditions. Vendor guarantees of performance for control devices do include consideration of the expected minimum efficiency over the expected range of operating conditions. ASARCO's argument regarding the lack of any relationship between inlet and outlet arsenic concentrations is flawed. The data cited included one inlet test that was reported to be biased low owing to loss of part of the sample during analysis. When this test series is excluded from the data set, the remaining three inlet tests only vary by about 20 percent. The measured collection efficiencies varied from 99.95 to 99.97 percent. Thus, the data only show small random variations and do not support ASARCO's argument.

Converter work practices. Several comments were received from ASARCO and Phelps Dodge on the proposed converter work practices. (No substantive comments on the converter work practices were received from other commenters.) ASARCO commented that, since a rolled-out converter never ceases fuming, the wording of proposed § 61.182(a)(2)(ii)(B) should be changed to require the converter to be held in an idle position until fuming is minimized. The EPA agrees with the commenter that converters do not cease fuming entirely. The intent of this requirement was not to require zero fuming before skimming but to require sufficient idling of the converter to minimize the quantity of secondary emissions generated during skimming. Consequently, the language of this requirement has been revised as suggested (now § 61.172(b)(2)(i)(B)).

ASARCO and Phelps Dodge also commented that the proposed requirement in § 60.172(a)(2)(ii)(C) to position the ladle as close to the converter as possible to minimize the drop distance would reduce the effectiveness of the air curtain, decrease productivity, and increase safety hazards. The commenters hypothesized that the hood capture efficiency would be adversely affected because holding the ladle off the ground will place the crane cable in the air curtain jet during the skim. ASARCO and Phelps Dodge argued that productivity would be decreased because: (1) coordination of smelter operations serviced by the crane is difficult due to the unpredictable nature of smelting; (2) the crane would not be available to perform other duties and it would block the converter aisle, thus preventing part of the aisle from being serviced by other cranes; and (3) at most smelters only one crane is available during the daily maintenance period, thus the requirement would

hinder production during these periods. ASARCO argued that the requirement would create safety hazards because the secondary hood channels the heat toward the crane aisle, increasing the heat burden on the crane block, cables, and cab. As support for this comment, ASARCO stated that it has had to install additional heat shields on the crane cab at Tacoma and to replace wiring with special heat-resistant materials.

The proposed requirements are based on EPA personnel's observations of converter operations at the ASARCO-Tacoma smelter. Over a 1-week period, EPA personnel observed the operation of the prototype air curtain secondary hood during all converter operating modes. Work practices used by crane and converter operators varied significantly from operator to operator. The work practices observed included the proposed practice of holding the ladle close to the converter and slow pouring rates during skimming as well as placing the ladle on the ground and rapid skimming rates. The EPA personnel observed that better capture efficiencies were achieved when the ladle was held close to the converter than when the ladle was placed on the ground, and better capture was obtained with slow skimming of the converter than with rapid skimming. Thus, EPA personnel did not observe that the crane cables adversely affected the secondary hood's capture efficiency. The EPA personnel, however, observed that the crane block did affect the capture of emissions when it was placed in the air curtain path. To achieve effective emission capture, the crane block must be placed above or below the air curtain during skimming, and the final regulation requires this.

The EPA reviewed the comments on the effects of the proposed ladle-holding requirements on productivity considering the range of typical converter operations at copper smelters. A converter generally completes a cycle in 8 to 24 hours, with slag blowing comprising 70 to 75 percent of the cycle. The remainder of the cycle is spent in charging and skimming operations, and holding due to normal process fluctuations within a smelter. At the end of each slag blowing period, slag is skimmed off the bath and returned to the reverberatory furnace. Typically, the ladle is filled 4 or 5 times during each slag skimming which lasts less than 30 minutes. Except for skimming into the first ladle (which may be done when the crane is not in the area), the crane is typically committed to skimming a particular converter and is not available for other activities regardless of the ladle-holding practice used. Thus, it is EPA's conclusion that the requirement that the ladle be held close to the converter during skimming could at worst decrease productivity only slightly.

The EPA reviewed the comments on the safety hazard presented by the proposed work practices considering available information on the practices. Basically, the proposed practices were observed in operation at the ASARCO-Tacoma smelter and appeared to be routine operating procedure for some crane operators. The question of safety hazards presented by the practice was also discussed with the USWA industrial hygienist. It was the industrial hygienist's impression from talking with the local union that in the past some crane operators at the ASARCO-Tacoma smelter routinely held the ladle close to the converter. Consequently, EPA concluded that, in spite of these comments, ASARCO has not judged the practice to be sufficiently dangerous to ban its use. The EPA also considered ASARCO's remarks on the potential hazard of additional heat stress applied to the crane block, cables, and cab. Important considerations in the assessment of any additional heat stress from the requirement were (1) the fact the requirements reflect ASARCO's operating practice at one smelter and (2) the fact that to the extent that a company concludes that the extra heat burden may affect crane cables and blocks, it appears safety can be assured by increasing the frequency of inspection of crane cables and upgrading the maintenance program for the cranes.

Moreover, it should be noted that Section 112(e)(3) allows use of alternative equipment or operation practices upon demonstration that equivalent capture efficiency is achieved. The addition of doors to the air curtain hood is one specific example of equipment which would preclude the need to hold the ladle close to the converter.

ASARCO and Phelps Dodge also commented that EPA has not estimated the extent to which any of the proposed work practices would reduce emissions and has not considered that some smelter feed causes more fuming than other feed. Hence, fuming will vary from time to time. (However, the commenters did not argue that this variation in fuming makes the standard unachievable.) The EPA's assessment of the effect of work practices on emission reduction consisted of evaluation of the effect on capture efficiency of the secondary hood. During the test program to evaluate the performance of the prototype hood, two visible emission observers usually evaluated the hood's capture effectiveness. The observations are presented in "Evaluation of an Air Curtain Hooding System for a Primary Copper Converter" (A–80–40/IV–A–4 and IV–A–5) and are summarized in the BID for the proposed standard (EPA 450/3–83–010a). The visual emission observations revealed that converter and crane operating practices can introduce significant variability in overall hood capture efficiency and that careful operations could minimize fume "spillage" and provide capture efficiencies of 90 percent or greater. Specifically, it was observed that hood capture efficiency increased considerably (more than 90 percent) during skimming operations when the crane operator held the ladle next to the converter while the converter was slowly rotated to the discharge position. In contrast, when the ladle was placed on the ground during skimming operations and the skimming rate was rapid, capture efficiencies were quite variable (ranging from 50 to 95 percent). It was also observed that during matte charging, capture effectiveness was improved if the crane was withdrawn slowly from the confines of the secondary hood. Thus, EPA concluded that the converter work practices did affect hood capture efficiencies and emissions escaping capture by the hood. When the recommended practices are used, it is estimated that hood capture efficiencies of 90 percent and greater are achieved, thus reducing converter secondary emissions.

The EPA recognizes that some smelter feed materials cause more fuming than other feed materials. For example, charging of dirty scrap (which contains essentially no arsenic) has been observed generally to overwhelm the secondary hood. In contrast, EPA does not expect that variations in matte or slag composition should seriously affect capture efficiencies achieved by the air curtain secondary hood. Consequently, for the requirements being established under this standard, this variation in fuming could at most affect the time that a converter must be held in an idle position but it does not affect the requirement to maximize emission capture. With a properly designed and operated secondary air curtain hood, this variation in fuming should not result in significant variations in secondary emission rates.

ASARCO and Phelps Dodge also responded to EPA's request in the preamble to the proposed standards (48 FR 33134) for comment on establishment

of minimum time periods for some of the work practices. These companies recommended that minimum time periods for converter work practices not be adopted because such time periods are unwarranted and would necessarily be arbitrary. ASARCO and Phelps Dodge argued: (1) That the converter and crane operators should be allowed discretion to determine the best methods to ensure capture of emissions, and (2) that smelter owners have ample incentives to operate air curtain secondary hoods in a reasonable manner consistent with maintaining production. The incentives cited were that proper uses would aid in achieving compliance with OSHA standards and in controlling SO_2 fugitive emissions.

Time periods for converter work practices are not included in the regulation being promulgated today. However, this does not preclude the Administrator from including time periods in any future amendment to the to the regulation establishing equivalent work practices, as provided under § 61.12(d). Whether or not the work practices for a facility specify minimum time periods will depend on the evaluation of the work practices and the Administrator's judgment of the need for such requirements. The Administrator will propose preliminary determinations of equivalent work practices in the Federal Register. During the public comment period, the company management can submit information on the adverse effects of time periods or any other requirements the Administrator considers necessary to achieve equivalent emission capture. As with the safety question discussed previously, the option of installing air curtain secondary hoods that entirely contain the fugitive emissions is available to copper smelting companies should they determine that practices necessary to minimize emissions interfere with production.

Need for additional controls. The USWA and NRDC commented that EPA's most important task is the identification of additional control measures. The USWA thought that the standard should provide for continuing evaluation of arsenic emissions from all sources in copper smelters. Similarly, the State of New York thought that additional control measures should be required. In particular, the State of New York objected to EPA's proposal to allow many low-arsenic smelters to continue using existing controls, instead of requiring the best technology available. In contrast, ASARCO argued that no emission controls beyond the secondary hoods and existing fugitive control programs should be imposed in the final standard. The EPA agrees with the commenters who argued that EPA should identify all additional control measures that will help reduce inorganic arsenic emissions and exposures. For this reason in the development of the standard, EPA assessed the control measures used, the emission sources, and the feasibility of achieving any additional emission reductions. The final standard includes those control measures that EPA believes are technically feasible and are likely to result in a reduction in risks that is proportionate to the cost. In deciding which emission sources should be regulated, EPA considered several factors. The principal consideration was the emission reduction achievable and the remaining public exposure to inorganic arsenic that will occur after application of controls. Other factors which were considered included the estimated health risks; the economic impacts of the additional control measures, including the likelihood of closure; and the costs of these measures relative to the amount of risk reduction achieved. Thus, in consideration of possible additional control measures for low-arsenic smelters, EPA examined the feasibility of the measures, the associated emission reduction and expected reduction in health risks, and the costs to implement controls. These analyses showed that further process and fugitive emission controls would not be reasonable in light of the small emission and risk reduction achievable and the high costs of the controls. Therefore, it is the Administrator's judgment that the standard being addopted today will reduce inorganic arsenic emissions and hence risks to the practical minimum and that additional measures are not warranted.

As part of their arguments on the need for additional control, NRDC disagreed with the approach followed by EPA at proposal to evaluate gas cooling as a control option for copper smelter process emissions. The two main points of disagreement are: (1) EPA's assumption that 121 °C (250 °F) is a reasonable lower limit for gas cooling because of potential corrosion problems; and (2) EPA's use of vapor pressure data in predicting potential inorganic arsenic emission reduction achievable with gas cooling. The NRDC suggested that EPA thoroughly examine the disagreement between emission test data and theory, and that EPA reconsider the benefits of gas cooling as a control option. The State of New Mexico also expressed concerns regarding EPA's analysis of the benefits of cooling and recommended that EPA conduct a more thorough analysis of controls for process emissions.

At proposal, EPA used arsenolite (As_4O_6) saturation concentrations to predict collectability of arsenic, although it was recognized that other factors, such as the presence of pre-existing nuclei in the gas stream, other forms of arsenic, and residence time at lower temperatures, can also affect condensation. Saturation concentrations were used because analysis of available data showed the two most important factors were operating temperature of the control device and the arsenic concentration in the gas stream. Specifically, the contention that temperature has a significant effect on the collectability of inorganic arsenic is supported by EPA test data, presented in the proposal BID, showing the inorganic arsenic collection efficiencies for three collection devices used on process streams at primary copper smelters. Emission test data for two control devices (one electrostatic precipitator [ESP] and one baghouse) operated at about 100 °C (about 212 °F) showed the devices achieved average arsenic collection efficiences of about 98 and 99 percent. In contrast, an ESP operated at 327 °C (620 °F) only achieved about 30% arsenic collection efficiency. The concentrations of inorganic arsenic measured in the inlet streams to these three control devices were comparable. Thus, EPA analyzed the potential inorganic arsenic emisisons reduction achievable if gas stream cooling in conjunction with an efficient particulate control device were utilized to control process streams at several smelters that do not currently use either this method of control or an acid plant to control process emission streams. Cooling of the gas stream to 121 °C (250 °F) was assumed in the analysis because it was believed to represent a reasonable estimate of operating temperatures for primary copper smelters' process gas streams, although it was also recognized that acid dew points may be higher or lower than 121 °C (250 °F) at some facilities. An additional consideration was that below 125 °C (257 °F) saturation concentrations are very small and further cooling would achieve very little additional emission reduction. Since no significant emission reductions were expected, EPA did not evaluate the feasibility and costs of process controls for these smelters.

Following proposal, because of comments on the approach used, EPA assessed the maximum potential risk reduction achievable by control of these emission sources. For the second

assessment, the revised smelter arsenic balances were used to predict arsenic emissions from the process streams, and it was assumed that 100 percent of the arsenic would be controlled (i.e., the risk was reduced to zero). The EPA estimated the health risks associated with process emissions at all primary copper smelters where gas cooling could potentially be applied to reduce inorganic arsenic emissions from one or more process streams. The estimates were prepared using HEM. The smelters for which these risk estimates were prepared include the smelters for which gas cooling was evaluated as a control option at proposal plus Phelps Dodge-Ajo. The estimates of annual incidence associated with current process emissions at these smelters that could potentially be reduced if gas cooling were used are shown in Table III–5.

TABLE III–5.—ESTIMATED ANNUAL INCIDENCE ASSOCIATED WITH PROCESS EMISSIONS AT SMELTERS WHERE GAS COOLING COULD POTENTIALLY BE APPLIED AS A CONTROL OPTION

Smelter	Process stream(s)	Annual incidence (cases/yr)
Kennecott-Hayden	Smelting Furnaces	0.0028
Kennecott-McGill	Smelting Furnaces and Converters.	0.0008
Magma-San Manuel	Smelting Furnaces	0.0013
Phelps Dodge-Ajo	Smelting Furnaces	0.0034
Phelps Dodge-Douglas.	Roaster, Smelting Furnaces and Converters.	0.0036
Copper Range-White Pine.	Smelting Furnaces	0.0001

The EPA has also estimated preliminary annual costs associated with process stream gas cooling. For the purpose of these estimates, it was assumed that gas stream cooling to 121°C (250°F) or below could be achieved without requiring that special measures be taken to prevent corrosion problems. The annualized cost estimates are shown in Table III–6. It is important to note that these costs are approximate and may not accurately reflect the actual cost of applying gas cooling. However, EPA believes these estimates do provide a general indication of the relative magnitude of the costs of applying gas cooling as a control option.

TABLE III–6.—Preliminary Estimate of Costs to Apply Gas Cooling as a Control Option[a]

Smelter	Process stream(s)	Annualized cost
Kennecott-Hayden	Smelting Furnaces	$ 1,200,000
Kennecott-McGill	Smelting Furnaces and Converters.	[b] 11,800,000
Magma-San Manuel	Smelting Furnaces	4,700,000
Phelps Dodge-Ajo	Smelting Furnaces	1,600,000
Phelps Dodge-Douglas.	Roaster, Smelting Furnaces and Converters.	10,300,000
Copper Range-White Pine.	Smelting Furnaces and Converters.	[c] 2,500,000

[a] Annualized costs include cost of reheating gas stream to stream temperature before cooling and, except as noted, it is assumed that the existing particulate control device would not have to be replaced.
[b] Includes cost of new particulate control device for the converter stream.
[c] Includes cost of new particulate control device for the smelting furnace stream.

As can be seen from Table III–5, the annual incidence associated with the process emission streams to which gas cooling could potentially be applied is very low in all cases, with 0.0036 incidence per year being the highest. Thus, even if gas cooling could reduce process stream emissions by 100 percent, the reduction in risk would be very small. In addition, the cost of achieving this small reduction in risk could be significant, as shown in Table III–6. These considerations led EPA to conclude that even if gas cooling to 121°C (250°F) or below were a feasible control option for process emissions at these smelters, the costs would be greatly disproportionate to the reduction in risk that could be achieved, and therefore gas cooling should not be required.

The State of New Mexico commented that if EPA uses emission estimates for ASARCO-El Paso that reflect improvement in the capture efficiency of the building evacuation system to 90 percent, EPA must include provisions in the regulation requiring maintenance of 90 percent capture efficiency by the building evacuation system and provisions to verify that the system is being properly operated and maintained.

In response to this comment, EPA reviewed its analysis of emissions from and operations of the converter building at the ASARCO-El Paso smelter to ensure that decisions and analyses were made based on the best information available. The reassessment included: (1) An on-site inspection of the converter building ventilation system; and (2) discussions with ASARCO regarding anticipated future operation of the system after installation of the converter secondary hoods and the impact of the computerized gas management system on fugitive emissions. The on-site inspection showed that the converter building evacuation system is achieving about 90 percent capture efficiency and EPA believes that if the existing total flow rate from the converter building is maintained after installation of the converter secondary hoods the capture efficiency of the building evacuation system should not be diminished. The EPA also recognizes that the converter secondary hoods could, by altering the dispersion of emissions and gas flow within the building, affect the performance of the building evacuation system. Since the design of the ventilation system incorporating the converter secondary hoods has not been established yet, EPA cannot determine what the effects will be and whether it is necessary to require maintenance of 90 percent capture efficiency in the converter building. The EPA also cannot determine whether it is necessary or reasonable to maintain 90 percent capture efficiency owing to uncertainties in the emission factor for the anode furnace and the converter fugitive emission factor and their effect on estimates of fugitive emissions from the building. To determine the necessary level of control, it would be necessary to monitor emissions, air flows, and system changes after installation of the converter secondary hoods.

From discussions with ASARCO and review of applicable State and SIP requirements, EPA concluded that ASARCO will continue to maintain the converter building in its present condition if this can be done without increasing worker exposures and creating unacceptably high temperatures in the work area. While it appears likely that ASARCO will maintain a relatively closed building, neither EPA nor ASARCO can determine with certainty whether this will be technically feasible. Therefore, the standard does not include provisions requiring maintenance of 90 percent capture efficiency in the converter building or maintenance of the measures taken by ASARCO to seal the building. The standard does, however, require ASARCO, or the owner or operator of any other facility that might be required to install converter secondary hoods, to report any significant changes in the operation of the emission control system capturing and controlling emissions from converter operations. Examples of changes that must be reported are reductions in air flow through the capture system of more than 20 percent and an increase in the area of the converter building that is open to the atmosphere. Because changes could affect the capture efficiency achieved by the secondary hoods and the building evacuation system, EPA will evaluate these if they occur.

Standard for New Smelters. The State of New Mexico commented that EPA has failed to determine control requirements for new smelters that will provide an ample margin of safety for protection of public health. The State of New Mexico thought that a thorough review by EPA would result in additional control requirements beyond those proposed for existing smelters. The EPA did not develop a separate standard for new smelters because it is EPA's best projections that no new primary copper smelters will be built during the next 5 years. To determine the applicable control measures and the impacts and benefits of those measures, it is necessary to rely on reasonable projections of possible new construction, including projections of process technologies and associated emission rates which would be associated with new plants. Consequently, EPA's analysis at proposal was based on application of control to the existing domestic primary copper smelters. Should any new primary copper smelters be constructed and the converter arsenic feed rate is above the cutoff, the standard would require control of converter secondary emissions. However, as is evident throughout this rulemaking, the need for and applicability of controls depends to a large degree on knowledge of specific processes and feed materials. Thus, EPA believes that it is impractical to attempt to project emission control requirements for technology that would be installed more than 5 years from now.

Costs and Economic Impact

Comments were received on the estimated costs to control converter secondary emissions and on the economic analysis of the affordability of arsenic controls for low-arsenic copper smelters presented in the July 20, 1983, notice of proposal. Owing to the comments received on the initial cost estimates, EPA revised its estimates of control costs and published estimates for comment in a September 20, 1984, Federal Register notice (49 FR 36877). Comments on the revised estimates were received from the three copper companies that had submitted comments on the initial cost estimates.

In comments on the initial cost estimates, ASARCO, Kennecott, and Phelps Dodge commented that estimated costs for six of their smelters were understated in the proposal and based on faulty assumptions. The companies submitted their estimates of emission control costs for these smelters. In several cases, EPA obtained from the companies additional information on their cost estimates. The EPA reviewed the cost information supplied by the companies and analyzed the differences between these estimates and those made by EPA at proposal. Factors contributing to the cost differences included: (1) Site-specific factors, requiring modification of the converter secondary hood design; (2) installation of new ductwork and fans rather than reuse of existing equipment; (3) different assumptions regarding the control systems needed; and (4) different assumptions for the annualized cost capital recovery factor (i.e., the interest rate and equipment service life). For each case where the company provided additional cost information, EPA reviewed the reasonableness of the companies' assumptions and reevaluated the control costs.

Comments on the revised cost estimates were received from ASARCO, Kennecott, and Phelps Dodge. These comments consisted of comments on EPA's annualized cost factor (i.e., interest rate and equipment service life) as well as comments on EPA's consideration of costs at the specific smelters. The EPA's consideration of the comments on the cost estimates and the economic impact assessments is discussed under three areas: (1) General comments on cost estimating assumptions; (2) comments on cost estimates for specific smelters; and (3) comments on economic impacts.

General Comments on Cost Estimating Assumptions. All three copper companies commented that EPA's annualized cost factor should be based on 15 percent interest and 15-year equipment life. The commenters argued that 15 percent interest represented real interest rates that would be incurred today and that the 15-year equipment life is more realistic for the conditions under which the hoods would be operated.

The EPA'a assumption at proposal was a 10 percent interest rate, and 20-year service life represented a reasonable estimate of costs that would be incurred with the installation of converter secondary controls. The annualized cost estimates are developed assuming dollars of constant value and hence, at the 5 to 6 percent inflation rate experienced at the time of proposal, the 10 percent interest rate represents a constant dollar equivalent of the nominal 15 percent interest rate. Thus, EPA believes that the interest rate assumed is close to the rate suggested by the commenters. The use of the 10 percent interest is further supported by the interest rate being experienced with tax-exempt municipal revenue bond issues, which most firms use to finance pollution control equipment. In general, current interest rates on tax-exempt bonds are below 10 percent. For example, ASARCO, Phelps Dodge, Magma, and Kennecott have financed air pollution controls at interest rates ranging from 3.75 to 10.8 percent. Therefore, EPA believes that a 10 percent interest rate represents a realistic assessment of capital cost of financing air pollution control equipment. The cost analysis an equipment service life of 20 years because that is the service life generally assumed for sheet metal and this life had been used by ASARCO to amortize the cost of installation of launder covers at Tacoma. The Agency recognizes that the service life of the equipment to be used in cost analysis is somewhat a matter of judgment. However, since changing the interest rate from 10 to 15 percent and equipment life from 20 to 15 years will increase the annualized cost by only 18 to 27 percent, these differences in the cost do not affect any decisions on the standard.

ASARCO commented that EPA's use of incremental cost makes the proposed standard appear to be most costly for those companies that have installed the fewest controls in the past and penalizes those that have installed controls. To consider prior installation of controls, ASARCO thought that the cost of operating or scrapping existing equipment should be attributed to the standard. The Agency does not agree that the method of cost analysis penalizes those companies that have installed controls. The assessment of whether to require further emission control at a facility considers the effectiveness of existing control systems in the assessment of present risks and the risk reductions achievable as well as the cost to achieve that emission reduction (cost effectiveness). Thus, prior installation of control systems is explicitly considered in the assessment of the need for additional emission reduction and the approach does not penalize those companies that have previously installed emission control systems.

Regarding ASARCO's second point, the Agencyt recognizes that some of the cited costs (i.e., operating or scrapping of existing equipment) may be legitimate expense, however, EPA did not consider them in this analysis for several reasons. The EPA believes that to consider these costs it would be necessary for EPA to evaluate the validity of the claimed expenses in terms of justification and assigned value. To conduct such an analysis would result in further delays in

issuance of this rulemaking. Furthermore, there is no single accounting procedures which is universally used for depreciating equipment. Thus, consideration of costs to scrap equipment is also subject to dispute. Consequently, EPA did not evaluate these costs for the smelters. A prime consideration in this decision was the fact that consideration of these costs would not affect the decision whether to regulate the specific smelters.

Comments on Smelter Specific Cost Estimates. As previously indicated, EPA reviewed each comment on the control cost estimates and where determined to be appropriate reevaluated the control cost estimate. The final cost estimates are presented in Tables III–1 and III–2, along with the final estimates of emission reduction achievable by the best emission controls. The bases of the revisions to the cost estimates for each smelter are summarized below and described in detail in the BID for the promulgated standard (EPA–450/3–83–010b).

ASARCO–El Paso: In comments on EPA's initial cost estimate, ASARCO submitted estimated capital costs for installation of air curtain secondary hoods that were approximately 35 percent higher than EPA's estimate at proposal. The EPA's review of the detailed breakdown of the cost estimate showed that ASARCO's estimate was higher primarily because it included costs for demolition and installation of new ductwork. Since the cost differences reflected slight differences in engineering judgment and were based on sound design and engineering practices, ASARCO's capital cost estimate was used in the reanalysis of annualized control cost. In comments on EPA's revised cost estimate of $1.8 million, ASARCO stated that changes in the design of the ventilation system for the converter secondary hoods have increased the estimated costs by approximately 90 percent. The EPA did not further revise the capital cost estimates from $1.8 million to $3.5 million to reflect these changes because the validity of the cost estimate could not be determined from the information provided. Additional information was not requested since this increase in capital costs in itself would not affect the decision to require converter secondary controls at this smelter.

ASARCO's initial estimate of annualized costs for the converter secondary hoods was about 2.3 times EPA's estimate in the July 20, 1983, notice of proposal. The EPA's and ASARCO's annualized cost analyses differed because ASARCO assumed a 15 percent interest on capital and 15-year equipment life, and attributed a prorated share for operation of the existing control device to the cost of implementing the standard. ASARCO's basis for calculating capital recovery costs was not used in the reanalysis of control costs. The EPA's revised estimate of annualized costs still reflects use of 10 percent real interest on capital and 20 year equipment life because EPA believes this basis more realistically reflects actual capital costs and the expected life for this equipment. Furthermore, on incremental costs of operation of the control device were attributed to this standard for the previously discussed reasons and since EPA is not in a position to realistically evaluate these costs. Therefore, the final annualized costs are the costs presented in the September 20, 1984, notice which reflect the ASARCO's first capital cost estimate of $1.8 million for installation of converter secondary hoods.

ASARCO–Hayden: ASARCO commented that EPA underestimated the capital and annualized costs of converter fugitive emission controls for this smelter. ASARCO argued that EPA's estimates were too low because of site-specific differences that affect hood design (the costs at proposal were derived from actual costs incurred at the ASARCO-Tacoma smelter), and because several direct and indirect costs were not included. The principal difference between EPA's proposal estimate and ASARCO's estimate was the costs pertaining to demolition of the existing secondary hoods and to the actual costs of a new air curtain secondary hood and ductwork structures. The EPA evaluated ASARCO's cost estimate and determined these costs to be reasonable, considering the specific design requirements at this facility. Consequently, ASARCO's capital cost estimate of $3.66 million was used in EPA's reanalysis of control costs for converter operations at ASARCO–Hayden.

ASARCO's estimate of annualized costs differed from EPA's estimate in the use of 15 percent interest on capital, 15 year equipment life, a pro rata share of the existing control device's operating costs, and a write-off of the value of the scrapped existing secondary hoods. Again, EPA's revised estimate of annualized costs is based on 10 percent real interest and 20 year equipment life rather than ASARCO's basis. The revised costs also do not include the write-off cost or the prorata share of operating costs of the existing ESP. The EPA did not consider it appropriate to attribute the write-off costs to the cost of the converter secondary controls since the emission and cost analysis (i.e., cost-effectiveness) considers the cost to achieve additional emission reduction. The operating costs of the existing ESP also were not included since EPA could not verify that the standard would significantly affect the cost to operate this control device. Therefore, the final estimate of annualized costs only reflects the higher capital costs for installation of converter air curtain secondary hoods at this smelter.

Kennecott-Utah: Kennecott commented that EPA's estimate of control costs for converter and matte and slag tapping operations were low. The EPA's review of a detailed breakdown of the capital cost estimate for converter controls showed the primary reason for the difference in the two estimates was that Kennecott's estimate included costs for installation of new ductwork and fans. The EPA reviewed Kennecott's capital cost estimates for accuracy and adherence to sound engineering principles and concluded that the costs were reasonable. Therefore, Kennecott's estimate of capital costs for converter controls were used in EPA's revised cost estimates.

Kennecott's annualized cost of converter controls also included a capital recovery cost based on 15 percent interest and 15 year equipment life. For the previously described reasons, EPA's revised annualized cost estimate is based on 10 percent real interest and 20 year equipment life. Thus, the revised annualized costs only reflect the increase in the capital costs of the secondary hoods.

Kennecott's capital cost estimates for matte and slag tapping controls differed significantly from EPA's primarily because costs for new ductwork, increased fan capacity, and a larger capacity control device (11,500 acmm [400,000 acfm]) were included. In the revised estimate of capital cost, EPA assumed use of new ductwork and increased fan capacity, but did not assume use of the larger capacity control device since the capacity was significantly in excess of that normally used. In comments on the revised cost estimates, Kennecott reiterated its belief that the higher capacity control device is needed. The EPA considered these comments and concluded that, considering costs and crane availability, a reasonable design would provide sufficient capacity to treat emissions from simultaneous tapping of one matte and one slag stream (i.e., the previo ısly assumed capacity of 5,600 acmm

[200,000 acfm]). The EPA also considered that further revision of the cost estimate would not be useful since the cost to control matte and slag tapping emissions was disproportionate to the risk reduction at the lower capacity control device. Therefore, EPA's estimated capital cost for the control device was retained and the final cost estimate reflects Kennecott's estimated costs for new ductwork and fan capacity.

The annualized costs for matte and slag tapping controls estimated by Kennecott again used 15 percent interest and 15 year equipment life as the basis of the capital recovery factor. The final cost estimates reflect only the higher capital cost for installation of matte and slag tapping controls.

Kennecott-Hayden: For its Hayden smelter, Kennecott provided estimates of capital and annualized costs for converter secondary controls, which were only slightly higher than EPA's estimates at proposal. Kennecott's capital cost estimates were only 19 percent higher than EPA's and were accepted as reasonable. Their estimate of annualized costs was revised to reflect a 10 percent interest rate and 20 year equipment life basis for calculating capital recovery costs.

Kennecott-McGill: Kennecott's estimates of capital and annualized costs for controls on converters and matte and slag tapping operations were slightly lower than EPA's estimates at proposal. The EPA reviewed the cost estimates provided by Kennecott and concluded their estimates were reasonable. Consequently, the final cost estimates reflect only minor changes that resulted from Kennecott's comments.

Phelps Dodge-Morenci: Phelps Dodge submitted capital and annualized cost estimates for installing converter secondary emission controls that were considerably higher than EPA's estimates at proposal. Phelps Dodge's capital cost estimate differed from EPA's in its inclusion of: (1) costs to demolish the existing secondary hood system and to replace the existing ductwork and fans; and (2) costs for a gas treatment plant (stainless steel ESP's and lime spray pretreatment). The EPA reviewed the basis of Phelps Dodge's cost estimates, and concluded that only the additional costs for demolition of the existing system and replacement of ductwork were reasonable. The costs for gas treatment were considered to be unnecessary because EPA would not require operation of the converter secondary emission control system at a temperature below the acid dew point of the gas stream. The costs for demolition of the existing system and installation of new ductwork and fans were accepted since they were based on actual expenses incurred by Phelps Dodge in installing a secondary hood on a converter at Morenci. Therefore, EPA revised the capital costs for converter controls using Phelps Dodge's estimate of costs to demolish and replace existing ductwork. The revised capital cost for control of converter secondary emissions also reflects use of a baghouse rather than an ESP fabricated of stainless steel to control emissions. (The capital cost of a baghouse was included in the cost estimate presented at proposal). Phelps Dodge's comments on the revised estimate were that a stainless steel ESP is necessary for treatment of gas streams below the acid dew point and is the proper basis for determining control costs for this smelter. The capital cost estimate was not revised to reflect use of a stainless steel ESP as recommended since the standard would not require the control device to be operated below the dew point of the gas being treated. In addition, revision of the cost estimate would not affect the decision to require control of converter fugitive emissions at this smelter. The final capital cost estimate, thus, reflects the cost to demolish and replace existing ductwork and the cost of a baghouse. The final cost estimate is the same as the estimate used in the September 20, 1984 notice.

Phelps Dodge estimated annualized costs using a capital recovery factor based on 15 percent interest on capital and 15 year equipment life, their estimate of capital costs, and utilities required for an ESP. As with the cost estimates discussed earlier in this section, EPA calculated the capital recovery cost for the revised capital cost estimate assuming 10 percent real interest and 20 year equipment life. In addition, Phelps Dodge's estimate for electric power costs was adjusted to apply to a baghouse rather than an ESP. The final estimate of annualized costs primarily reflect the higher capital costs of the control system. The final cost estimate is the same as the estimate given in the September 20, 1984 notice.

Phelps Dodge-Ajo. Phelps Dodge commented that EPA's estimated costs to cool the reverberatory furnace offgases and collect condensed inorganic arsenic particulate should Phelps Dodge not convert the furnace to oxy-sprinkle smelting and install an acid plant were too low. To support its argument, Phelps Dodge submitted cost estimates. As previously discussed, EPA cannot presently determine the technical feasibility of cooling gas streams below the acid dew point without creating corrosion problems or predict the emission reduction that could be attained. Moreover, owing to the changes in the estimate of inorganic arsenic emissions from this smelter, the reduction in risk is very small and the costs are disproportionately high. Therefore, EPA is not requiring that gas stream cooling be used and is not revising its cost estimates since this option would not be selected at the lower cost.

Comments on Economic Impacts. Comments on costs and economic impacts were also received from NRDC and the Sierra Club, Grand Canyon Chapter. The NRDC commented that to assess the affordability of controls EPA must obtain verifiable documentation of company claims of the economic impacts of control measures, such as financial planning documents for the affected smelters. The NRDC charged that the existing economic information on the facilities is incomplete and unsupported. The EPA believes that the cost and economic information is sufficiently complete and documented for the following reasons. The EPA's economic analyses for primary copper smelters are based on data which are available in the public domain or from the companies. Information was obtained from a wide variety of sources, including past submissions of data by the copper companies, reports prepared by others on the companies, information on prices from standard reference, and engineering cost studies of the specific operations. As previously described, detailed economic and engineering information has been obtained under Section 114 of the Act from several of the copper companies since proposal. Therefore, EPA believes that obtaining further information such as internal planning documents is unnecessary and EPA's economic analyses of affordability are sufficient for decisionmaking purposes.

The Sierra Club stated that the proposal should include sufficient economic data for the public to judge the economic feasibility and costs of controls, including income figures for all operations at a smelter such as gold and silver production. In addition, the actual costs of plant closure should be detailed for each smelter and compared to benefits (e.g., health cost savings). The EPA agrees with the commenter that sufficient information should be presented to allow the public an opportunity for meaningful participation in the rulemaking. It is for this reason that detailed supporting information is made available for public inspection in

the docket and a document summarizing the supporting information is made available to interested parties. The EPA believes that, since the economic analyses and their bases are available, sufficient information has been provided. Because the financial health of the low-arsenic primary copper smelters depends heavily on the price of copper, EPA does not believe that consideration of income from by-products and co-products would significantly have affected the conclusions of the economic analysis for the low-arsenic smelters.

The EPA believes that the recommended comparison of closure costs and benefits is beyond the scope of this rulemaking. To perform the type of analysis suggested by the commenter would require consideration of a large number of factors including: (1) Costs and economic impacts to the affected companies; (2) costs and economic impacts to businesses in the community; (3) social costs, such as impacts on property values, health care costs, lost development opportunities, and unemployment compensation costs; and (4) health impacts associated with unemployment. Some of these costs such as closure costs are relatively easy to quantify (data are readily available, can be developed, and require few value judgements); while others such as impacts on property values, quality of life, and health care costs are extremely difficult to quantify (data are not available, and there is no generally accepted method for quantifying the impacts in economic terms). Consequently, EPA believes this type of analysis cannot be reasonably done within this rulemaking. These secondary impacts are considered qualitatively in selecting the level of a standard. Therefore, EPA believes that this type analysis is not necessary for selecting the appropriate control level for the standard. Taking all available qualitative and quantitative information into account, EPA judges that the social and economic costs of closing the smelters would far outweigh the resulting health benefits.

Emission Monitoring Requirements

ASARCO and Phelps Dodge took issue on several grounds with the proposed opacity monitoring requirement for converter secondary emissions exiting a control device. First, ASARCO and Phelps Dodge commented that opacity monitoring will not be useful for evaluating proper operation and maintenance of control devices because short-term variations in particle size distributions due to combining of gas streams will cause variations in observed opacities that are not associated with a change in outlet mass concentration. ASARCO and Phelps Dodge recommended revision of the opacity monitoring requirement to a requirement for keeping a record of all maintenance of the control device and for annual emission testing of the device. The EPA agrees with the commenters that, if they occur, significant fluctuations in particle size distribution of emissions could cause variations in observed opacities. However, the magnitude of opacity variations due to particle-size changes are expected to be small relative to changes associated with malfunctions or improper operation or maintenance of the control device. Because the intent of the opacity monitoring requirement is to detect increased emissions due to malfunctions and improper operation, EPA reassessed the opacity monitoring requirement and concluded that the most reasonable approach is to establish a maximum 1-hour average reference opacity level that considers the fluctuations in opacity levels. One-hour average opacity levels above the reference opacity level would indicate that the collection device may no longer be meeting the particulate matter emission limit. A Method 5 test could then be performed to determine compliance.

ASARCO and Phelps Dodge also disagreed with EPA's requiring the use of transmissometers for monitoring gas streams with low particulate concentrations. ASARCO commented that frequent Method 5 testing would have to be performed to determine the validity of using transmissometers to monitor compliance with the 11.6 mg/dscm (0.005 gr/dscf) emission standard because opacity levels associated with concentrations of 11.6 mg/dscm (0.005 gr/dscf) are close to or at a transmissometer's limit of detection. The EPA agrees with ASARCO and Phelps Dodge that opacity levels associated with concentrations of 11.6 mg/dscm (0.005 gr/dscf) may be near the detection limit of transmissometers. The intent of the proposed requirement was to monitor for significant changes in the level of particulate matter emission control resulting from operation or maintenance practices, and such increased levels would be well above the detection limit of the transmissometer. Therefore, EPA revised the method for defining excess opacity levels. The revisions include using 1-hour averages of opacity data to determine the highest average and establishing the reference opacity level at 5 percent opacity above the highest 1-hour average opacity determined during an evaluation period that includes the emission test. The EPA believes that reference opacity levels defined in this manner will be a useful indicator of significant changes in the performance of the control device.

The Administrator would like to emphasize that this opacity monitoring and reporting of excess emissions is only a monitoring requirement and is not a directly enforceable opacity standard. However, excess emissions do provide evidence of possible violation of operation and maintenance requirements. In other standards, the EPA establishes enforceable opacity limits based on visual evaluations of opacities of gases exiting stacks and other conveyances, and on consideration of the effect on opacities of the expected range of normal operating variables. In addition, these opacity limits are based on Method 9, which determines opacity using human observers. At the primary copper smelters, opacity limits could not be established for the control devices because emissions from several control devices frequently are discharged in common to the atmosphere through one stack. Consequently, EPA established the monitoring requirements.

ASARCO further commented that they have had frequent maintenance problems with their existing transmissometers and that these problems are costly and undercut the usefulness of the instrument. The EPA does not agree that all transmissometers will experience frequent maintenance problems. Available information on performance of transmissometers indicates that transmissometers which meet 40 CFR 60 Appendix B specifications have repeatedly demonstrated more than 95 percent availability when properly operated and maintained. Therefore, EPA believes that transmissometers are a useful means for ensuring continuous effective operation of collection devices.

Magma Copper Company questioned whether the waiver of the emission test requirements referred to in § 61.175(a)(4) could be used to waive the requirement for collection and analysis of daily grab samples of matte, slag, and total smelter charge for any smelter that has arsenic inputs well below the cutoff. The waiver of emission tests discussed in § 61.13 and referred to in § 61.175(a)(4) of the proposed regulation for low-arsenic copper smelters, applies to sources that are required to demonstrate compliance with the standards through periodic testing of emissions. Thus, this reference in the regulation does not refer to the

sampling requirements for demonstrating applicability.

The EPA agrees that the daily collection and monthly analysis of grab samples would prove burdensome for a smelter that fell well under the applicability cutoff of 75 kg/h (164 lb/h) converter arsenic charging rate. Consequently, paragraph 61.174(g) has been included in the final regulation to permit an owner or operator to petition the Administrator for a modified sampling schedule if the analyses performed in the first year of the standard show the source to have very low arsenic processing rates in relation to the cutoff values. An example of modified sampling schedule would be weekly, instead of daily, grab samples being collected to form the composite monthly samples.

Compliance Provisions

The proposed compliance provisions have been redrafted to remove provisions that were established as general provisions to 40 CFR Part 61 (see 50 FR 46284) and to improve the organization of sections in the regulation. The final standard also includes specific provisions requiring the owner or operator to operate the secondary hood system in a manner which will achieve maximum capture of arsenic emissions. The optimum operating conditions necessary to achieve maximum capture of emissions will be determined by the Administrator. The Administrator will propose separate optimum operating conditions for each secondary hood system which will be based on an assessment of capture efficiencies achieved by the hood under different operating conditions. The assessment of hood capture efficiency may include an evaluation of emissions by a panel as well as evaluation of hood design and performance by EPA personnel. After a period of public comment, the Administrator will publish final optimum operating conditions for each system.

The standard requires the owner or operator of each secondary hood system to submit to the Administrator a list of initial operating conditions for the system that in the owner or operator's judgment result in the greatest capture of converter secondary emissions. This list must be submitted by September 3, 1986, or within 30 days of the initial operation of the system, whichever is later. The system shall be operated under these conditions, or under conditions specified by the Administrator, until optimum operating conditions are established.

The potential use of a panel to evaluate hood performance was discussed in the July 20, 1983, **Federal Register** notice of proposal (48 FR 33112). The EPA requested comments on the proposed use of a panel in evaluating air curtain secondary hoods and in determining optimum operating conditions. Based on comments received on this "panel approach", the Administrator thinks that the method for establishing optimum operating conditions for the hoods should be clarified. The conditions will be determined by the Administrator based on visual observations of overall capture efficiency under different operating conditions such as different face velocities in the exhaust hood, horizontal slot dimensions, air velocity through the horizontal slot, and other operating conditions specified by the Administrator. These observations may be made by EPA personnel alone or by a group of individuals (i.e., "panel") comprised of representatives of EPA, industry, and the State or local air pollution control agency.

A variety of comments was received concerning the method for determining optimum hood operating conditions. Some commenters endorsed the concept of the panel approach, while others opposed it. One commenter argued that the panel approach is subjective and thus will result in different requirements for different facilities. The commenter suggested that EPA use the tracer mass balance procedure to determine capture efficiency of air secondary hoods. The EPA agrees with the commenter that visual evaluation of fume capture efficiency is a subjective procedure; however, EPA believes it is superior to other procedures, including the tracer technique. In tests to evaluate the air curtain secondary hood at ASARCO-Tacoma, EPA characterized hood performance by tracer mass balance tests, visual evaluations, and transmissometer measurements. The tracer mass balance procedure used could not at any one time evaluate the capture efficiency within the entire converter-secondary hood area. That is, owing to technical limitations, the capture efficiency could be evaluated only within subregions such as near the air curtain or near the converter. In contrast, the visual observations were overall assessments of the entire converter-secondary hood area. The average observations for the various converter operating conditions showed the same trends as the tracer experiments. In addition, tracer mass balance determinations are difficult and expensive to conduct. The EPA, therefore, believes it is unnecessary and unreasonable to require tracer mass balance determinations to evaluate hood capture efficiencies. The study also found the transmissometer data to be of limited usefulness because, again, overall capture efficiencies for the entire converter-secondary hood area could not be evaluated. (The transmissometer was mounted on top of the air curtain and measured emissions escaping capture by the air curtain and passing through the slot. It was not practical to monitor emissions escaping the lower portion of the hood and pouring into the converter aisle.) Consequently, the Administrator concluded that visual evaluation of fume capture efficiency should be used to evaluate optimum conditions for secondary hoods.

The use of observers to determine hood capture effciencies would not change the basic control requirements for the facilities. The standard requires installation of an air curtain secondary hood and use of operating practices that maximize the capture efficiency obtained. The EPA recognizes that design and operating requirements will vary among facilities and possibly among converters at any given facility. These differences will occur because each air curtain secondary hood will have to be custom designed to fit each existing converter. It is expected that any differences resulting from differences in judgments of capture efficiency will be negligible relative to differences imposed by design constraints.

ASARCO and Phelps Dodge argued that it would be costly and time consuming to use the proposed panel approach to establish optimum operating conditions for the converter secondary hoods. In lieu of the panel, ASARCO and Phelps Dodge recommended that each company be required to optimize its hoods through trail and error and that the company be required to keep a log of the parameters and emissions. during this period. The record would be submitted to EPA for review and assessment. The requirements of the standard do not preclude an owner or operator from conducting studies on the capture effectiveness and operating parameters. In fact, EPA believes that such studies by the owner or operator could expedite the Administrator's evaluation of operating conditions. However, EPA does not believe that the optimum operating conditions should be solely determined by the owner or operator of the source. The EPA believes that optimum operating conditions should be determined by the Agency since

evaluation of optimum operating conditions for converter secondary hoods is a further step in the development of the regulation. This part of the standard cannot be developed or established until the equipment required by the regulation is in place and operating. The Administrator will consider the assessment of the secondary hood's performance under a variety of operating conditions in the selection of operating conditions. The specific requirements that will establish optimum capture of converter secondary emissions will then be proposed by EPA in the Federal Register and established after consideration of public comments. Until optimum operating conditions are established for the source, the standard requires the owner or operator to operate the hood in a manner which will achieve effective capture of secondary emissions. These operating conditions will be established by the Administrator based on review of operating conditions recommended by the owner or operator of the source.

ASARCO further commented that if EPA decides to use a panel to evaluate and optimize hood operations, EPA should take steps to ensure that the panel is unbiased. ASARCO recommended that the panel be composed of persons knowledgeable about smelting and that it include at least one neutral member who is selected and compensated jointly by EPA and the company. The Administrator will establish optimum operating conditions based on visual assessments of hood capture efficiency under a variety of operating conditions and consideration of public comments on the proposed requirements. Because EPA plans to use observations made by more than one observer and measurements of operating parameters (e.g., hood flow rate, horizontal slot dimension, etc.), significant discrepancies among observations by the different observers would be detectable and, thus, considered in the selection of optimum operating conditions. (Observations of hood capture efficiency by EPA and local air pollution control agency personnel at the ASARCO-Tacoma smelter were generally in close agreement and EPA expects that observations by several individuals should be comparable and any biases detectable.) Public comment on the proposed standard will also serve to identify any bias in the basis for the proposed standard. Consequently, EPA does not agree that additional measures are needed to ensure that the observers and hence the assessments of hood capture efficiency are unbiased.

The NRDC and the USWA supported the panel approach, but favored expanding the size of the panel and its responsibilities. These commenters recommended that the panel include representatives of the union and local environmental groups. It was also suggested that the panel consider all sources of arsenic emissions, enforcement of the standard, and review of monitoring data. The Administrator considered these recommendations and concluded that they were inconsistent with the intended approach and should not be adopted as suggested. The EPA views the determination of optimum operating conditions as a further step in the regulatory development process of this standard. Hence, EPA believes that this determination should be conducted by EPA personnel considering assessments and information provided by EPA personnel, local air pollution control agency personnel, and the affected industry. During the development of the optimum operating conditions, there will be opportunities for NRDC, the USWA and members of the public to review and comment on the basis of the suggested operating conditions. Therefore, EPA believes that it is not necessary to include formally NRDC, the USWA, and other groups in the standards development process. The suggested use of a panel to review control of all arsenic emission sources, enforcement of the standard, and the monitoring data is also considered to be unnecessary. Arsenic emissions from sources in the primary copper smelters are presently being controlled under consent decrees, SIP's and OSHA standards, and additional control of other emission sources cannot be achieved at a reasonable cost. The EPA further believes that it would be inappropriate to delegate enforcement of the standard to a panel.

The NRDC suggested that the optimization panel may need to be chartered under the Federal Advisory Committee Act (FACA) and required to report annually to the Administrator, the local air pollution control agency, and the public on the status of arsenic emission control and prospects for additional emission control. The EPA did not intend to create an advisory committee with the proposed panel approach. The EPA proposed use of a panel to report data which can be used to identify optimum operating conditions for the converter secondary hoods as a means of continuing the development of the regulatory requirements. Hood operating parameters cannot be evaluated, or determined, until the equipment required by the regulation is in place. It is intended that optimum operating parameters will be proposed by the Administrator and established after consideration of public comments. Therefore, EPA has revised the regulation to indicate clearly that the optimum operating conditions for the secondary hoods are established by EPA based on a case-by-case evaluation of the hood's performance and public comments. At present, EPA plans to evaluate each hood's capture efficiency under varying operating conditions using observers, as appropriate and practicable, from EPA, the local air pollution control agency, and industry. The observers will only serve as a fact-finding body and will not recommend operating parameters for secondary hoods. Consequently, EPA does not believe the observers or "panels" need to be chartered under FACA or to report annually to the Administrator.

Impacts of Reporting and Recordkeeping Requirements

The EPA believes that the required reporting and recordkeeping requirements are necessary to assist the Agency in: (1) Identifying sources; (2) determining initial compliance; and (3) enforcing the standards.

The Paperwork Reduction Act (PRA) of 1980 (Pub. L. 96–511) requires that the Office of Management and Budget (OMB) approve reporting and recordkeeping requirements that qualify as an "information collection request" (ICR). To accommodate OMB review, EPA uses 3-year periods in its impact analysis procedures for estimating the labor-hour burden of reporting and recordkeeping requirements.

The average annual burden on primary copper smelters to comply with the reporting and recordkeeping requirements of the final standard over the first 3 years after the effective date is estimated to be about 8,000 labor-hours.

IV. Glass Manufacturing Plants

As indicated in the Overview section of this preamble, a standard limiting inorganic arsenic emissions from glass manufacturing plants was proposed on July 20, 1983, in the Federal Register (48 FR 33112). The public comment period for the proposed standard ended on January 31, 1984. The public comment period was reopened from March 20 1984, to April 19, 1984, to allow comment on the proposed method for calculating zero production offset and proposed control options for soda-lime glass furnaces (49 FR 10278). This part of the preamble presents the final standard, its

basis, and a discussion of the public comments on the proposed standard.

Summary of Promulgated Standard

Applicability

The promulgated standard for inorganic arsenic emissions from glass manufacturing plants applies to each glass melting furnace that uses commercial arsenic as a raw material. It does not apply to pot furnaces (i.e., furnaces that contain one or more refractory vessels and melt glass by indirect heating), nor does rebricking cause a furnace to become subject to the standard.

Emission Limits

The standard requires that the owner or operator of an existing glass melting furnace limit uncontrolled arsenic emissions to 2.5 Mg (2.75 tons) per year or less or reduce arsenic emissions by 85 percent. Similarly, new or modified glass melting furnaces must keep emissions below 0.4 Mg (0.44 ton) per year or meet the 85 percent reduction requirement.

Compliance Provisions

To demonstrate compliance with the precent reduction option, the owner or operator must determine the concentration of arsenic in the inlet and outlet gas streams to the control device and calculate the emission reduction. Test Method 108 is used to determine arsenic concentration, which consists of gas and particulate phase arsenic.

To demonstrate compliance with the annual uncontrolled emission limits, an owner or operator is required to conduct emission tests unless the amount of arsenic added annually to be an existing furnace is less than 8.0 Mg (8.8 tons) or less than 1.0 Mg (1.1 tons) for new or modified furnaces, and the owner or operator can demonstrate through a material balance that the applicable uncontrolled emission limit is being met. Owners or operators of all affected furnaces must estimate the uncontrolled arsenic emissions for the forthcoming 12-month period each 6 months by multiplying an arsenic emission factor for each type of glass produced by the amount of each type of glass produced during the 12 months.

Continuous Monitoring

An owner or operator who chooses to comply with the percent reduction requirement must continuously monitor the opacity of emissions discharged from the control device. Opacity monitoring must be conducted during the compliance test to establish a reference opacity level. Following the compliance test, owners or operators must reduce all opacity data to 6 minute averages and report any occurrence of excess opacity levels above the reference level to the Administrator. The temperature of the furnace exhaust gas entering a control device must also be continuously monitored and recorded.

Recordkeeping and Reporting Requirements

In addition to the reporting requirements of 40 CFR Part 61, Subpart A, owners or operators must report the results of the continuous monitoring system evaluation, any excess opacity occurrence, and any change from compliance with uncontrolled emission limit provisions to percent reduction provisions. Owners or operators who choose to comply with the annual uncontrolled emission limit must keep records of the arsenic emission factors, supporting calculations, and emission forcasts for the preceding and forthcoming 12-month periods. All owners or operators of a source subject to the standard must maintain records of all measurements, all calculations used to produce emission estimates, monitoring system performance evaluations, any malfunction of process or control equipment, and any maintenance and repairs made to the controls or monitoring systems. All records must be suitable for inspection and retained for 2 years.

Summary of Environmental, Health, Energy, and Economic Impacts

The standard being established today will affect eight existing glass manufacturing furnaces and any new or modified glass manufacturing furnace. It is expected that control devices would have to be installed on two of the existing furnaces or the use of arsenic as a raw material would have to be decreased and that the other six furnaces would be able to continue using their existing control systems to meet the standard. Environmental, energy, and economic impacts of the standard are summarized in Table IV–1.

TABLE IV–1.—SUMMARY OF ENVIRONMENTAL, ENERGY, AND ECONOMIC IMPACTS FOR GLASS MANUFACTURING PLANTS

Plant location	Uncontrolled arsenic emissions (Mg/yr)	Reduction in arsenic emissions (Mg/yr)	Increase in solid waste (Mg/yr)	Increase in energy use (MW-hr/yr)	Decline in profit (percent)
Martinsburg, West Virginia	13.2	11.22	[a]2.0	185	<5
Charleroi, Pennsylvania	3.4	[b]3.40	0	0	0
Danville, Kentucky	7.6	[c]7.40	0	0	0
Charleroi, Pennsylvania	7.3	[c]7.29	0	0	0
State College, Pennsylvania	6.9	[c]6.88	0	0	0
Fall Brook, New York	3.8	[c]3.73	0	0	0
Fall Brook, New York	2.7	[c]2.65	0	0	0
Central Falls, Rhode Island	2.6	[c]2.41	0	0	0
Total	47.5	44.98	2.0	185	<5

[a]Assumes that 90 percent of waste is recycled to furnace.
[b]Assumes that non-arsenic containing glass recipe will be used; no impacts.
[c]Controls presently in place; no additional controls required.

Significant Changes Since Proposal

In response to public comments received on the proposed rulemaking and as a result of EPA re-evaluation, five major changes were made to the proposed standard. These changes involve: (1) Revising the annual limit on uncontrolled emissions above which add-on control is required for existing furnaces, (2) revising the format of the emission limits, (3) allowing the control device to be by-passed for periods of maintenance, (4) eliminating the exemption to 40 CFR Part 60, Subpart CC for sources that comply with the NESHAP, and (5) establishing a provision to exempt certain sources from testing requirements.

Existing Furnace Annual Uncontrolled Emission Limit

After proposal, further examination of the costs, risks, and potential risk reductions associated with inorganic arsenic emissions and controls for specific existing glass manufacturing plants led the Agency to change the regulation by establishing the limit on uncontrolled arsenic emissions for existing glass melting furnaces at 2.5 Mg (2.75 ton) per year. The proposed limit on uncontrolled arsenic emissions of 0.4 Mg/year (0.44 ton) is retained for new or modified furnaces. The rationale for this revision is discussed below under Basis for Standard.

Format of the Standard

The second major change in the regulation since proposal involves a change in the format for emission limits. The proposed standard was in the form of a particulate matter emission limit. The promulgated standard requires

owners or operators of glass furnaces to ensure either that uncontrolled arsenic emissions are less than limits described above or that arsenic emissions are reduced by 85 percent. Compliance with the percent reduction requirement is determined using Test Method 108. The rationale for this revision is discussed below under Basis for Standard.

Bypass of the Control Device

The third major change in the regulation allows owners or operators of glass furnaces to petition the Administrator for permission to by-pass the control device for a limited period for purposes of maintaining the control device. However, the Agency has included provisions to minimize arsenic emissions during maintenance periods and will allow by-pass of the control device only upon demonstration of its necessity. The revision is fully discussed in the Discussion of Comments section of this part of the preamble.

Elimination of Exemption from NSPS

In the proposed standard, particulate emission limits were identical to those in the glass manufacturing NSPS (40 CFR Part 60, Subpart CC), and no furnace was allowed to operate with uncontrolled arsenic emissions in excess of 0.4 Mg (0.44 ton) per year. The promulgated standard has been revised such that the emission limits are no longer identical and the exemption from the NSPS is no longer appropriate.

Compliance Testing

In the final major change, EPA created a provision which exempts owners or operators of certain furnaces from the requirement to conduct emission tests to demonstrate compliance. Emission tests are not required for existing furnaces that use less than 8.0 Mg (8.8 tons) arsenic per year and new or modified furnaces that use less than 1.0 Mg (1.1 tons) arsenic per year if the owner or operator demonstrates through a material balance that the applicable annual uncontrolled emission limit is being met. Analysis has shown that at least 70 percent of the arsenic added to the raw materials is retained in the glass product. Therefore, the Agency believes that existing furnaces to which less than 8.0 Mg (8.8 tons) of arsenic is added annually, or new and modified furnaces to which less than 1.0 Mg (1.1 tons) of arsenic is added annually, would not be likely to exceed the respective limits on uncontrolled inorganic arsenic emissions. The Administrator does reserve the right to require an emission test of any furnace using arsenic to ensure that the annual uncontrolled emission limits are not exceeded under any circumstances.

Additional Analyses

As a result of public comments, EPA has conducted additional analyses to ensure that the promulgated standard is based on the most complete and accurate information available. These additional analyses focused on the status of the industry, arsenic emission sources and characteristics, and risk assessment. The scope and results of these additional analyses are summarized below. The analyses and conclusions are discussed in greater detail in the Discussion of Comments section of this preamble and in the BID for the promulgated standard.

Update of Industry Status

At the time of proposal, the Agency had identified a total of 32 glass melting furnaces that use arsenic as a raw material. Five of these furnaces were determined to emit arsenic at uncontrolled levels at or below 0.4 Mg (0.44 ton) per year, which was the proposed cutoff for requiring add-on controls. Of the remaining 27 furnaces, 13 were identified as being controlled by electrostatic precipitators or fabric filters. Arsenic emissions from the 32 furnaces were estimated to be 36.7 Mg (40.4 tons) per year. The Agency also noted at the time of proposal, however, that more arsenic-using furnaces probably existed, although most of these furnaces were believed to be small pot furnaces and all-electric melters or other furnaces that would not be affected by the proposed regulation.

Upon further investigation, a total of 53 additional arsenic-using glass furnaces were identified. Total emissions of arsenic from these 53 furnaces were estimated to be 12 Mg (13.2 tons) per year. Over 60 percent of these additional arsenic emissions arise from a single glass plant which is equipped with 9 individual arsenic-using furnaces, 5 of which emit more than 0.40 Mg (0.44 ton) of arsenic annually. Each of the remaining 44 furnaces identified after proposal were estimated to emit 0.4 Mg (0.44 ton) or less of arsenic per year. Additional data were also gathered after proposal on the 32 furnaces that had been previously identified. It was found that since proposal the use of arsenic had been eliminated from 10 of these furnaces.

The information currently available to the Agency indicates that a total of 75 glass furnaces located at 27 plants are known to use arsenic as a raw material. Arsenic emissions from these 75 furnaces are estimated to be 32.2 Mg (35.4 tons) per year. Of the total arsenic emissions from the source category, nearly 80 percent (25.2 Mg/yr) arise from 11 uncontrolled furnaces each of which emits more than 0.40 Mg (0.44 ton) annually. These 11 furnaces are located at 5 separate glass manufacturing plants. A complete listing of all furnaces known to use arsenic is provided in Appendix C of the BID.

Emission Sources and Characteristics

Several analyses were conducted to estimate the magnitude of inorganic arsenic emissions from various sources within the glass manufacturing plants, and to characterize the factors affecting inorganic arsenic emissions. These analyses included:

(1) An estimate of the magnitude of fugitive emissions of arsenic from glass manufacturing plants (A–83–8/IV–B–11). Although several sources of fugitive arsenic emissions were identified, even under worst case conditions they were found to be very small compared to stack emissions.

(2) An analysis to determine if furnaces that do not add arsenic as a raw material could exceed the proposed 0.4 Mg/yr (0.44 ton/yr) emissions cutoff due to the presence of arsenic impurities in other raw materials (A–83–8/IV–B–12). It was concluded that the concentration of arsenic impurities in other raw materials would be insufficient to result in an exceedance of the proposed emission cutoff.

(3) Estimates of the cost and emission impacts of allowing furnaces to by-pass the emission control device during periods of routine maintenance of the control device (A–83–8/IV–B–10).

(4) An evaluation of the feasibility of reducing or eliminating the use of arsenic in soda-lime glass (A–83–8/IV–B–13).

(5) A study of the factors affecting arsenic emissions from glass melting furnaces, particularly those affecting the proportion of arsenic that is emitted as particulate matter. Additional emission test data were obtained through EPA testing and from industry representatives. The results of this study are reviewed below under Basis for Standard, and more detailed summaries of the emission test data can be found in Appendix A of the BID.

Risk Assessment

Risk assessment for all known arsenic-using furnaces had been performed at proposal. However, for several of these furnaces stack parameter data were not available and model plant parameters were used.

After proposal, stack parameter information was obtained for those furnaces. In addition, more accurate location (latitude/longitude) data were obtained for all furnaces. Risk assessments were then performed for the actual furnaces known to use arsenic rather than for model furnaces. Maximum individual risk and aggregate risk values were calculated for each plant at existing control levels and the levels required by the final standard. These risk estimates also reflect extension of the analysis out to 50 km (31 miles) from a plant and the use of 1980 census data.

The risk estimates were developed using the procedure described in Part I, *Risk Assessment Methodology*, of this preamble and a unit risk factor of $4.29 \times 10^{-3}/\mu g - m^3$. The Agency determined that most of the emissions and risks were associated with 11 uncontrolled furnaces emitting more than 0.4 Mg/yr (0.44 tons/yr) each. These furnaces are located at 5 different plants. A sixth plant operating 9 uncontrolled furnaces, each emitting less than 0.4 Mg/yr (0.44 ton/yr) of arsenic, was also found to present relatively high aggregate risks. Because the proposed annual limit on uncontrolled arsenic emissions was set at 0.4 Mg/yr (0.44 ton/yr), none of the furnaces at this plant would have been subject to the proposed control requirements. However, risks to the population in the vicinity of a plant are a function of the emissions from an entire plant, rather than emissions from individual furnaces within a plant. Therefore, EPA considered whether the proposed annual limit should be lowered to include furnaces emitting less than 0.4 Mg/yr (0.44 ton/yr) when these furnaces contribute significantly to plant-wide emissions, and thereby to plant-wide risks.

The Agency also reviewed the availability of closer or more representative meteorological sites from those used in the proposal analysis. Meteorological experts within the Agency identified four sites in which more representative meteorological data were available, collected the data, and used it in the analysis which supports today's rulemaking. The plant sites involved are located in Dunkirk, Indiana; Baltimore, Maryland; Charleroi, Pennsylvania; and Moundsville, West Virginia.

Basis For Standard

As discussed in Part I of this preamble, the risk management approach provides a comprehensive assessment of candidate source categories, including the evaluation of current and applicable emission control alternatives, as well as the associated health risks, risk reductions, and costs and economic impacts. This section describes the application of this approach in the development of the standard for glass manufacturing plants. The points addressed here are: (1) Application of risk management approach including consideration of risks and the effectiveness and cost of control technology; and (2) selection of the format and the level of the final standard.

Application of Risk Management Approach

The standard that is being established today is based on the best technology which, in the Administrator's judgment, is available and can be applied without causing widespread plant closure or imposing costs that far exceed any public health benefit. Accordingly, the standard reflects consideration of the estimated risks, the costs and availability of further controls and the associated potential for risk reduction, and the potential societal impacts of regulatory alternatives. The following sections describe the principal factors considered in this decision.

Consideration of Effectiveness of Control Technology. At the time of proposal, it was believed that the most effective technology for control of arsenic emissions was identical to the best demonstrated technology for control of total particulate emissions from glass melting furnaces, fabric filter collectors and ESP's. This determination was based on data obtained from two tests on particulate control devices (one fabric filter and one ESP) installed on glass melting furnaces that use arsenic, which showed that at least 90 percent of the emitted arsenic was in the particulate matter and captured in the control devices. Because only arsenic emitted in the particulate matter can be controlled with existing technologies, and because most of the arsenic emitted from glass melting furnaces was believed to occur as particulate matter, it was concluded that application of the best systems for control of particulate matter would result in the maximum achievable control of arsenic emissions. Therefore, the Agency proposed to require affected sources to reduce emissions of total particulate to the levels required by the NSPS for glass manufacturing plants.

Data gathered by the Agency after proposal, and information supplied by commenters on the propsed standard, led to the conclusion that some furnaces would be able to meet the proposed emission limits without installing the most effective technology for control of arsenic emissions. For example, it was found that the largest arsenic emitting furnace, located in Martinsburg, West Virginia, could meet the proposed emission limit by reducing total particulate emissions by about only 45 percent. In this case, the corresponding reduction achieved in arsenic emissions would be no greater than 45 percent. In addition, data gathered from further EPA emission tests and emission test data supplied by industry representatives indicated that inorganic arsenic emissions from some glass melting furnaces may occur less predominantly in the particulate matter than previously believed. Therefore, a requirement that only emissions of total particulate be controlled would not guarantee that the most effective control of inorganic arsenic emissions would be achieved in all cases.

Prior to proposal, consideration was given to two alternative formats for the emission limits. One alternative considered was to establish a limit on the amount of arsenic emitted. This alternative was not adopted because the wide variability in the amount of arsenic added to the raw materials and the amount of arsenic retained in the product glass results in considerable variability in the amount of arsenic emitted from glass melting furnaces. Therefore, if the arsenic emission limit were set high enough to allow for the variability observed, the standard would not have resulted in application of the most effective control to all affected furnaces. Consideration was also given to an efficiency format that would require arsenic emissions to be reduced by a specific percentage. An efficiency format was not proposed because it was believed that a particulate emission limit would require the same level of control without the additional costs involved in measuring arsenic emissions at both the inlet and outlet of the control device.

In considering all of the available data, the Agency has concluded that, as believed at proposal, well-maintained and -operated ESP's and fabric filters represent the most effective technologies for controlling inorganic arsenic emissions from glass manufacturing plants. However, based on the data collected after proposal, the Agency has also concluded that the effectiveness of fabric filters and ESP's in controlling emissions of arsenic from glass melting furnaces can best be determined by measuring the efficiency of these control devices in reducing inorganic arsenic emissions. Only in this way can the Agency be assured that inorganic arsenic emissions from all

affected furnaces will be reduced to the greatest extent possible. Therefore, the Agency believes that the additional costs involved in measuring the amount of arsenic at both the inlet and the outlet of the control device are warranted given the increased effectiveness of control that would be achieved by requiring emissions of arsenic to be reduced by a specific percentage.

As mentioned above, data made available after proposal have indicated that arsenic emissions from some glass melting furnaces may occur less predominantly as particulate matter. However, data collected during EPA emission testing and additional data supplied by industry representatives did not demonstrate any correlations between the proportion of arsenic emitted as particulate matter and the type of glass produced, the type of furnace used, or the type of arsenic added to the raw materials. In light of this finding, the EPA examined further whether cooling of the exhaust gases would cause gaseous arsenic emissions to condense and thereby increase the overall efficiency of particulate control devices in reducing total arsenic emissions. One emission test performed by EPA after proposal indicated that cooling of the furnace exhaust gas might increase the proportion of arsenic emitted as particulate matter, although the results were inconclusive. A subsequent emission test performed on the furnace located in Martinsburg, West Virginia, did clearly demonstrate that, for that furnace, arsenic removal efficiencies could be increased by cooling the furnace exhaust gas to a temperature of 121°C (250°F) or below.

The Agency also considered the performance of existing control devices in reducing emissions of inorganic arsenic. Available performance data for arsenic-using furnaces that are presently equipped with ESP's or fabric filters are shown in Table IV–2. The average efficiencies in controlling total arsenic emissions range from 92.6 percent to 99.7 percent. The relatively lower removal efficiency achieved by the fabric filter system installed on the furnace located in Central Falls, Rhode Island, is attributable to the fact that a relatively larger fraction of the arsenic emitted from this furnace was in the gaseous phase and not captured by the control device. The fabric filters at this plant achieved a greater than 99 percent removal efficiency of particulate arsenic emissions and the furnace exhaust gas is cooled to about 138°C (280°F) prior to entering the existing control system.

TABLE IV–2.—AVAILABLE ARSENIC EMISSION DATA FOR GLASS MELTING FURNACES WITH EXISTING CONTROL DEVICES

Plant Location	Furnace	Control device type *	Uncontrolled emissions (Mg/yr)	Controlled emissions (Mg/yr)	Average percent reduction
Danville, Kentucky	A	ESP	7.6	0.20	97.5
Charleroi, Pennsylvania	C	ESP	7.3	0.01	98.6
State College, Pennsylvania	A	ESP	6.9	0.02	99.7
Fall Brook, New York	A	ESP	3.1	0.05	98.5
	B				
	C				
Fall Brook, New York	C	ESP	3.8	0.07	98.0
	D				
Central Falls, Rhode Island	A	FF	2.6	0.19	92.6
Moundsville, West Virginia	A	ESP	1.7	0.04	98.7
Corning, New York	B	FF	0.6	0.04	94.0
Circleville, Ohio	A	ESP	0.6	0.03	95.0
	B	ESP	0.2	0.006	97.0

* ESP = Electrostatic Precipitator; FF = Fabric Filter.

Consideration of Costs and Economic Impacts. At the time of proposal, insufficient data were available to estimate the cost and economic impacts of applying controls to specific furnaces at specific glass manufacturing plants. To more accurately evaluate the cost and economic impacts associated with the final standard, detailed information was gathered on the largest emitting furnaces and the plants at which those furnaces are located. This information enabled the costs associated with alternative control options to be estimated for specific furnaces and the economic impacts to be estimated for the companies that operate those furnaces.

The detailed cost and economic analysis was conducted only for arsenic-using furnaces that are not presently equipped with ESP's or fabric filters. Total arsenic emissions from the 16 arsenic-using furnaces with existing control devices were estimated to be about 1.3 Mg/yr (1.4 tons/yr), or less than 5 percent of the emissions from the source category. Moreover, the available data indicate that arsenic emissions from these furnaces are presently being reduced to the maximum extent possible, although 4 furnaces were found to be emitting particulate emissions at levels higher than those required by the proposed standard. The costs of upgrading these control devices to meet the proposed emission limits were estimated and found to be excessive given that little, if any, incremental reduction in arsenic emissions could be achieved by further control. Therefore, the Agency concluded that it would unreasonable to require any additional control of arsenic-using furnaces equipped with existing fabric filters or ESP's, and no further cost or economic analysis was conducted for these furnaces.

Of the total 59 uncontrolled glass melting furnaces that use arsenic, about 90 percent of the emissions and risks are associated with 24 individual furnaces. Therefore, the cost and economic impacts of applying controls to these 24 furnaces were investigated. The 24 furnaces are located at 6 separate glass manufacturing plants and are owned and operated by 3 different companies.

The costs of controlling arsenic emissions from the six plants are shown in Table IV–3. Capital costs were calculated to range from about $2,239,000 to $4,650,000. Annualized costs were calculated to range from about $450,000 to $940,000. Assuming that the costs of controls are absorbed by the companies operating these furnaces (i.e., control costs are not passed on to consumers), the estimated decline in profit ranges from less than 5 percent to more than 30 percent. A decline in profit of 15 percent or more is considered by the Agency to be significant, and could result in the closure of a furnace. A more detailed discussion of the cost and economic analysis is provided in Appendix B of the BID.

TABLE IV–3.—COSTS OF CONTROL AND ECONOMIC IMPACTS

Plant	Number of uncontrolled furnaces	Uncontrolled emissions (milligrams per year)	Capital cost ($1,000)	Annual cost ($1,000 per year)	Decline in profit (percent)
Martinsburg, Virginia	1	13.3	2,634	533	<5
Dunkirk, Indiana	9	7.6	2,979	597	15–30
Charleroi, Pennsylvania	1	3.4	2,628	531	30–50

TABLE IV-3.—COSTS OF CONTROL AND ECONOMIC IMPACTS—Continued

Plant	Number of uncontrolled furnaces	Uncontrolled emissions (milligrams per year)	Capital cost ($1,000)	Annual cost ($1,000 per year)	Decline in profit (percent)
Shreveport, Louisiana	3	2.4	2,746	556	5-15
Toledo, Ohio	[2] 9	1.6	4,650	938	5-15
Corning, New York	1	0.8	2,239	451	15-30

[1] Four furnaces at plant each emit less than 0.4 Milligrams per year of arsenic; no controls were assumed to be applied to these four furnaces.
[2] All nine furnaces at plant each emit less than 0.4 Milligrams per year of arsenic; controls were assumed to be applied to all nine furnaces.

As mentioned above, cooling of the exhaust gases from glass melting furnaces may, in some cases, be necessary to achieve the best control of arsenic emissions. Because cooling of the exhaust gases may result in corrosion of the metal surfaces in an emission control system, the costs of installing systems to remove corrosive substances (dry scrubbers) from the exhaust gas were also estimated (A-83-08/IV-B-14). The use of dry scrubbing systems was found to increase annualized control costs by 40 to 50 percent above those for an ESP or fabric filter alone. However, no existing furnaces affected under the promulgated standard would need to install dry scrubbing systems.

Consideration of Risks. In reaching the decision on the standard, the Administrator considered of particular importance the present magnitude of estimated risks and the degree to which risks can be reduced by control measures which are available.

The magnitude of the reduction in risk achievable by application of control technology was determined by comparing the maximum individual risk and the annual incidence before control to the residual risks remaining after control. Any changes in the emission source characteristics caused by the application of controls, such as exhaust gas cooling, were considered in the estimates of residual risks. The accuracy of the exposure analysis was evaluated by comparing the results obtained from alternative dispersion models and, where possible, by comparing the modelled concentrations to the concentrations actually measured near specific sites.

Estimated Risk—Using the approach and procedures described above, the maximum lifetime risks and the annual incidence prior to control were calculated for the six highest emitting plants. Over 90 percent of the total arsenic emissions from the source category arise from the 24 individual melting furnaces operated at these 6 plants. The residual risks that would remain if emissions from these plants were controlled to the maximum extent possible were then estimated.

The results of the risk analysis are summarized in Table IV-4. Maximum lifetime risks prior to control range from a low of about 0.3×10^{-4} for the plant located in Corning, New York to a high of about 9×10^{-4} for the plant located in Dunkirk, Indiana. Annual incidence was determined to range from 0.005 per year to 0.12 per year. With the exceptions of the highest emitting plant and the lowest emitting plant, the magnitude of the risks were found not to correlate directly with the magnitude of the emissions. This finding reflects the sensitivity of risk to the physical charcteristics of the emission source as well as to the location of the population with respect to the emission source.

TABLE IV-4.—BASELINE RISKS AND RESIDUAL RISKS AFTER CONTROL OF GLASS MANUFACTURING PLANTS WITH HIGHEST ARSENIC EMISSIONS

Plant	Number of uncontrolled furnaces	Uncontrolled arsenic emissions (Manufactured/year)	Prior to control		After control		
			Maximum risk ($\times 10^{-4}$)	Annual incidence	Maximum risk ($\times 10^{-4}$)	Annual incidence	Reduction in annual incidence
Martinsburg, West Virginia	1	13.3	8	0.12	0.5	0.013	0.11
Dunkirk, Indiana	[1] 9	7.6	9	0.038	1.7	0.0085	0.03
Charleroi, Pennsylvania	1	3.4	4	0.11	0.2	0.012	0.10
Shreveport, Louisiana	3	2.4	0.7	0.035	0.06	0.0037	0.03
Toledo, Ohio	[2] 9	1.6	3	0.07	0.09	0.0066	0.059
Corning, New York	1	0.8	0.3	0.005	0.14	0.0016	0.003

[1] Four furnaces at plant each emit less than 0.4 Mg/yr of arsenic; no controls were assumed to be applied to these four furnaces.
[2] All nine furnaces at plant each emit less than 0.4 Mg/yr of arsenic; controls were assumed to be applied to all nine furnaces.

The estimated reduction in annual incidence achievable through the application of emission controls were found to range from less than 0.01 per year to more than 0.10 per year. The estimated reduction in annual incidence achievable from the plants located in Martinsburg, West Virginia, and Charleroi, Pennsylvania, were found to be three to four times greater than the reduction in annual incidence achievable from the other four plants. Because emission test data gathered at the Martinsburg plant indicated that cooling of the furnace exhaust gas would result in more effective control of arsenic emissions, residual risks were estimated for a control system that included gas cooling.

Validation of the Exposure Estimates—The EPA has used HEM to estimate exposure and risks associated with the glass plants. However, similar to what the Agency did in the case of the primary copper smelter source category, EPA has validated its HEM exposure assessment of the glass plants in several ways. First, at two sites, EPA has conducted a more site-specific air quality modeling analysis and compared the results to the concentration profiles that are predicted by the HEM dispersion model. In the original HEM analysis, EPA did not consider terrain effects or the full effect of building downwash on stack emissions from glass manufacturing plants. Glass plants often have short stacks that cause effluents to be entrained in the building wake on the leeward side of the furnace buildings or other adjacent structures. As a consequence, it was regarded as likely that airborne arsenic concentrations to which people might be exposed near these plants could be underestimated. In addition, it was felt that the extent of building downwash could be expected to be different depending on the temperature of the gas stream exiting the control device. If so, the relative reduction in risk achieved would be affected. For these reasons, more sophisticated dispersion analyses

were carried out for two glass plant locations: Martinsburg, West Virginia, and Shreveport, Louisiana. These two plants were selected because of availability of representative meteorological data that were collected at monitoring stations near the plants and because of the availability of some limited ambient monitoring data to which the modeling results could be compared. Although the concentrations predicted by HEM were somewhat higher, generally the HEM and the site-specific analyses provided comparable results.

Where possible at other glass plant sites, the Agency has validated the results of the air dispersion models by comparing the modeled concentrations to ambient concentrations measured near the plants. Ambient data in sufficient quantities to make limited comparisons were found at four glass plant sites. Generally, EPA's dispersion modeling estimates were close to the measured concentrations or were overpredictions of the measured concentrations. However, much of the available data were below the detection limit of the sampling and analytical techniques used in the ambient monitoring program, thus, limiting the usefulness of the comparison.

Selection of Standard

Based on EPA's interpretation of section 112, as previously discussed in Overview—Basis for Promulgated Standards, the following factors were considered in the selection of the standard: (1) The magnitude of the risks; (2) the costs and availability of further controls; and (3) the potential economic and social impacts of the alternatives.

Applicability of the Standard. In assessing the need for further control, the risks and control cost estimates for the six plants with the highest uncontrolled emissions were considered. These estimates are shown in Tables IV–3 and IV–4. The cost control at each of the six plants is similar except for the Toledo, Ohio, plant which has an estimated annual control cost approximately double the others. In contrast, the estimated risks and risk reduction potential varies widely among the six plants. The reduction in annual incidence achievable from plants located in Martinsburg, West Virginia, and in Charleroi, Pennsylvania (from Table IV–4), is three to four times greater than the reduction in annual incidence achievable from the other four plants.

Based on a consideration of these risk and cost data, it was concluded that further control should be required at the Martinsburg and Charleroi plants. However, at the other four plants where risk and achievable risk reduction potential are lower, it was concluded that further control is not necessary, and if required, would impose costs which are disproportionately high compared to the benefits of reducing the estimated current risks. Accordingly, the promulgated standard establishes an annual emission limit on uncontrolled arsenic emissions from existing glass melting furnaces that would require only the plants located in Martinsburg, West Virginia, and Charleroi, Pennsylvania, to install add-on control technology. Because emissions from these two plants arise from a single uncontrolled furnace having emissions higher than any furnace at the other plants, and because no furnaces at any of the other plants emit more than 2.5 Mg (2.75 tons) per year of arsenic, the limit on uncontrolled emissions of arsenic for existing glass melting furnaces is established at 2.5 Mg/yr (2.75 tons/yr). In establishing this limit, the estimated economic impact of applying controls to the plant located in Charleroi, Pennsylvania, was given particular consideration because the economic analysis indicated that possible closure would result. However, representatives of the firm that owns this plant indicated that they do not intend to produce an arsenic-containing glass in this furnace in the future (A–83–08/IV–E–58). Therefore, the Agency concluded that establishing the limit at 2.5 Mg/yr (2.75 tons/yr) would not result in adverse economic impacts. The EPA has also identified six other glass melting furnaces with uncontrolled inorganic arsenic emissions of more than 2.5 Mg/yr (2.75 tons/yr). However, all six of the furnaces are presently equipped with the control technology that would be necessary to meet the promulgated emission control requirements, and, as discussed below, are not expected to need any additional control to demonstrate compliance.

The selected uncontrolled emission limit of 2.5 Mg/yr (2.75 tons/yr) applies only to existing glass melting furnaces that use commercial arsenic. For new or modified furnaces, the proposed limit of 0.4 Mg/yr (0.44 tons/yr) of uncontrolled arsenic emissions has been retained in the promulgated standard. It is not feasible to establish an emission limit for new or modified glass melting furnaces on the basis of risk because it is impossible to characterize the factors that affect risk estimates for glass furnaces that do not presently exist, or do not at present use arsenic. The risks associated with emissions of arsenic are a function of the amount of arsenic emitted, the specific physical parameters of the emission source (i.e., stack height, exhaust gas temperature, and velocity, etc.), and the location of the emission source with respect to the surrounding population. The Agency does not anticipate that any new arsenic-using furnaces will be built, or that any furnaces that do not at present use arsenic will do so in the future. Since proposal, the use of arsenic in some glass melting furnaces has been eliminated and the Agency believes that this trend is likely to continue. The companies that operate these furnaces have indicated that they do not plan to resume using arsenic. The cutoff applied to new or modified glass melting furnaces is based on consideration of cost and economic factors and has been retained in the promulgated standard to discourage reintroduction of arsenic in furnaces that have recently eliminated its use and to discourage future use. The Agency believes that this is appropriate to prevent risks from increasing near those furnaces that have recently eliminated arsenic use and because reasonable alternatives to exceeding this cutoff level are available at these facilities. These include the use of low-arsenic glass recipes and the use of controlled furnaces for production of those glass types which would result in uncontrolled emissions of arsenic of more than 0.4 Mg (0.44 ton) per year.

Format and Level of the Standard. As discussed above under Consideration of the Effectiveness of Control Technology, EPA believes that well-maintained and operated ESP's and fabric filters represent the most effective technologies for controlling emissions of arsenic from glass manufacturing plants. However, based on information and data made available after proposal, the Agency has determined that a standard requiring arsenic emissions to be reduced by a specific percentage is necessary to ensure that these control devices are applied and operated in a manner that best reflects their full effectiveness in controlling arsenic emissions.

Consideration was given to applying the percent reduction requirement to emissions of particulate arsenic rather than total arsenic. This option was considered because only arsenic emitted as particulate matter can be collected by ESP's and fabric filters. However, emission test data have indicated that for some glass melting furnaces only a relatively small proportion of the emitted arsenic occurs as particulate matter. In these cases, a control requirement based on a percent reduction in particulate arsenic would result in some furnaces meeting the

standard without reducing emissions of total arsenic to the maximum extent possible. Also, the results obtained from a recent test on a glass melting furnace (summarized in Appendix A of the BID) indicated that the Test Method 108 sampling train may not provide a reliable indication of the ratio of particulate arsenic emissions to gaseous arsenic emissions in instances where the concentration of gaseous arsenic is sufficiently high to be sensitive to gas stream temperature. Therefore, measurements of particulate arsenic, as opposed to total arsenic, may be subject to error in some instances and may not provide an accurate indication of the degree of emission reductions achieved in all cases. For these reasons, the Agency concluded that the standard should be based on the reductions of total arsenic achievable through the application of ESP's and fabric filters.

As the data from furnaces with existing control devices demonstrate (see Table IV–2), the efficiency of a given control device in reducing total arsenic emissions may not be obtained by a similar device installed on a different glass melting furnace. The variability observed in removal efficiency is primarily a function of the proportion of arsenic emitted as particulate matter. As discussed above, no correlations have been identified between the proportion of arsenic emitted as particulate matter and the type of glass produced, the type of glass melting furnace employed, the type of arsenic added to the raw materials, or other process characteristics. Although the available data do indicate that cooling of the furnace exhaust gas prior to entering a control device can sometimes be effective in increasing the proportion of arsenic emitted as particulate matter, sufficient data are not available to predict quantitatively the extent to which cooling will increase the effectiveness of control. As a result of these uncertainties, available data on the efficiencies of existing control devices in controlling total arsenic emissions cannot be generalized to glass melting furnaces that are not presently controlled. Therefore, the degree of emission reduction achievable from the two uncontrolled furnaces emitting more than 2.5 Mg/yr (2.75 tons/yr) of arsenic were also investigated.

Available emission test data for the furnace located in Charleroi, Pennsylvania, showed that the fraction of total arsenic emitted from this furnace in the particulate phase ranges from about 89 to 95 percent. Assuming that the stack gas sampling system used in these tests accurately measured the ratio of particulate arsenic to gaseous arsenic, control efficiencies for total arsenic of from 89 to 95 percent would be expected. However, because EPA expects that no arsenic will be used in this furnace in the future, no further analysis of the arsenic control efficiencies achievable for the Charleroi furnace was performed.

Emission test data supplied by Corning Glass Works on the furnace located in Martinsburg, West Virginia, showed wide variability in the proportion of arsenic emitted from the furnace as particulate matter. Data collected over a five-year period indicated that the proportion of arsenic emitted as particulate matter ranges from a low of about 30 percent to a high of about 100 percent. Wide variability was observed even for tests performed on the same day, under stable operating conditions. Because the available data on the Martinsburg furnace did not provide the Agency with any clear indication of the arsenic removal efficiencies achievable from this furnace, additional testing was performed by EPA. Simultaneous with the EPA tests, Corning conducted a series of performance tests on a pilot-scale fiber filter system that was installed on the furnace. In reviewing the data from these tests, it was concluded that cooling of the furnace exhaust gas to a temperature of approximately 121 °C (250 °F), or below, was effective in increasing the efficiency of the pilot-scale fabric filter in reducing emissions of arsenic. When the control device was operated at temperatures above 121 °C (250 °F), control efficiencies ranged from about 58 percent to 82 percent and averaged 71 percent. Control efficiencies at temperatures below 121 °C (250 °F) ranged from 75 percent to 97 percent and averaged 87 percent. The variability observed in these results reflects the fact that the operating conditions of both the furnace and the control device were variable over the course of the test program.

The operating condition that exerted the greatest influence on the percentage of arsenic reduced across the control device was the production rate of the furnace. As the production rate decreased, the concentration of particulate arsenic in the gas entering the control device also decreased. The concentration of gaseous arsenic at the inlet of the control device did not decrease at lower production rates. Because proportionally less arsenic entered the control device in particulate form at lower production rates, the percentage of the total arsenic captured by the control device decreased. However, the total concentration of arsenic in the gas leaving the control device remained constant at all furnace production rates. Therefore, although the efficiency of the control device decreased with decreasing production rate, the production rate of the furnace did not affect the amount of arsenic emitted to the air. A detailed summary of these tests is provided in Appendix A of the BID.

In selecting the level of the final standard, the Agency considered the performance of existing control devices installed on arsenic-using glass furnaces in reducing arsenic emissions, the factors affecting control device performance, the control efficiencies achievable for uncontrolled furnaces that would be required to install controls, and the cost and economic impacts of control. As reviewed above, the performance of ESP's and fabric filters installed on existing furnaces demonstrate that efficiencies of between about 92 percent and 99 percent are achievable. However, in considering the factors affecting performance, the Agency determined that no basis exists for concluding that existing control devices with relatively lower arsenic removal efficiencies could achieve higher removal efficiencies by modifying either the design or the operation of the control system. In addition, the costs of modifying any existing control systems would be disproportionate to the incremental reductions in arsenic emissions that might be achieved, even if there were reason to believe that these modifications would increase the effectiveness of control. Therefore, the Agency concluded that the final standard should be set at a level that would not require any additional control of furnaces equipped with existing control devices. In considering the data gathered from the emission tests on the uncontrolled furnace located in Martinsburg, West Virginia, the Agency concluded that the level of control achievable within the range of production rates typical for this furnace would be an 85 percent reduction in total uncontrolled arsenic emissions. Because the Agency also believes that all furnaces with existing control devices affected under the emission cutoff are capable of achieving an 85 percent reduction in total arsenic emissions without installing any additional control, the level of the final standard was set at 85 percent.

The Agency believes that the level of the final standard will ensure that the most effective technology for reducing emissions of arsenic will be applied to

the furnace that will be required to install add-on controls as a result of this regulation. Because the factors affecting the performance of particulate control devices in reducing emissions of arsenic are variable and cannot be accurately predicted, any control device installed as a result of this rulemaking can reasonably be expected to be designed and operated in a manner that ensures the most effective possible control under all furnace operating conditions. Therefore, the Agency concluded that setting the standard at a level higher than 85 percent would not result in the application of control technology any more effective than that which would be applied to reduce emissions by 85 percent. If the level of the standard were set at a higher level, however, the probability that a source may fail to demonstrate compliance would be correspondingly higher, without providing any additional environmental benefit. The Agency believes that reductions in arsenic emissions of at least 90 percent will be typically achieved by all existing controlled furnaces affected by the standard. To ensure that the intent of the standard is not circumvented by any existing or future source, provisions are included in the final regulation that prohibit the application of controls to only a portion of the furnace exhaust gas. This provision will prevent the installation of partial controls on those furnaces where all of the arsenic is emitted as particulate matter under all furnace operating conditions, and an overall 85 percent reduction could be achieved by applying controls to only a portion of the furnace exhaust gas.

The final standard does not require cooling of furnace exhaust gases to any specific level prior to entering a control device. The Agency has no basis for determining under what conditions cooling would be effective in increasing control device performance or for predicting the extent to which cooling might increase performance. Therefore, a requirement that the exhaust gas from all affected furnaces be cooled to some specific level prior to entering a control device would result in increased costs with no guarantee that additional arsenic emission reductions would be achieved. The Agency believes that both the level and the format of the final standard are sufficient to ensure that furnace exhaust gases are cooled in those instances where the effectiveness of control is dependent on the operating temperature of the control device. In the case of the furnace located in Martinsburg, West Virginia, the Agency expects that the temperature of the furnace exhaust gas will be cooled to below 121 °C (250 °F) prior to entering the control device. The final standard includes provisions for continuous monitoring and recording of the operating temperature of a control device to ensure that the temperature maintained during the emission test to demonstrate compliance is also maintained thereafter.

Discussion of Comments

Comments on the proposed standard were received from 20 interested parties, and three speakers commented on the proposed standard for glass manufacturing plants at the public hearing. In addition, four comment letters were received on the March 20, 1984, **Federal Register** notice regarding options proposed by EPA for controlling emissions from furnaces producing soda-lime glass and calculating zero production offsets. The following sections summarize the Agency's responses to the major comments and the consideration given these comments in formulating the standard being established today.

Applicability

Several commenters raised questions about the applicability of the regulation to glass manufacturing plants, both generally and with respect to specific circumstances. The major issues raised by the commenters concerned the consideration of risk in establishing an emissions cutoff, the applicability of the regulation of furnaces that are at present equipped with add-on control devices, the applicability of the regulation to emissions arising from trace impurities of arsenic in non-arsenic raw materials, the reliance on OSHA standards for controlling fugitive emissions of arsenic, and the applicability of various allowances and exemptions.

Selection of Annual Uncontrolled Emission Limit. One commenter (the New Jersey Department of Environmental Protection) stated that the proposed arsenic emission limit of 0.4 Mg/yr (0.44 ton/yr) for uncontrolled emissions was based entirely on cost and economic factors, with no consideration given to the risks associated with these emissions.

At the time of proposal, the Agency's standard setting approach involved first selecting a standard that was achievable through the application of best available technology (BAT). Determination of BAT was based on the capability of existing technologies to reduce emissions, as well as on the costs of emission controls and on the economic impact of applying the controls at specific facilities. The residual risks remaining after application of BAT to furnace that would have been affected by the proposed limit (0.4 Mg/yr of arsenic prior to control) were then considered to determine if a more stringent standard would be necessary to protect public health. The Agency determined that eliminating the 0.4 Mg (0.44 ton) per year exclusion level would not affect the estimated maximum lifetime risk and would have negligible effect on estimated cancer incidence. Since proposal, Agency policy has evolved to place greater emphasis on risk and risk reduction in determining which specific sources within a source category shall be subject to an emission limit under section 112. Costs and economic impact are still considered in relation to the reductions in risk achievable through the use of selected control technologies.

Because of various site-specific factors, the degree of risk associated with inorganic arsenic emissions from glass manufacturing plants does not, in all cases, directly correlate with the absolute magnitude of those emissions. For instance, a fugitive emission source with a relatively low emission rate released relatively close to the ground may have a similar air quality impact as a stack with a higher emission rate and a higher point of release. Moreover, risks to the population in the vicinity of a plant must be assessed in terms of emissions of inorganic arsenic from an entire plant, rather than emissions from individual furnaces within a plant. Therefore, in establishing an emission cutoff, the emphasis has shifted from consideration of the magnitude of the emissions arising from individual furnaces, and the costs of controlling those emissions, to consideration of the magnitude of the risks associated with specific plants and the degree to which those risks can be reduced at a reasonable cost. The application of this policy in developing the final standard was described above under Selection of Standard.

Applicabilty to Furnaces with Existing Control Devices. One commenter representing Corning Glass Works stated that all glass melting furnaces that are currently equipped with add-on control technology should not be required to install additional control. The commenter indicated that the largest and most cost-effective reductions in arsenic emissions could be obtained from furnaces that are currently uncontrolled.

The promulgated emission limit requiring 85 percent reduction of arsenic emissions applies to all existing glass melting furnaces that emit more than 2.5

Mg/yr (2.75 tons/yr) of arsenic prior to an add-on control device. Thus, furnaces with existing control devices must achieve this limit if emissions of arsenic from these furnaces would be more than 2.5 Mg/yr (2.75 tons/yr) if controls were not in place; EPA is aware of 6 such furnaces. Available emission data indicate that arsenic emissions from each of these furnaces are currently being reduced by more than 85 percent; therefore, demonstration of compliance should be possible without installation of additional control.

Trace Amounts of Arsenic in Raw Materials. Three commenters, including the Glass Packaging Institute, addressed the issue of whether the presence of arsenic as an impurity in the raw materials used to manufacture glass should be considered in determining the applicability of the standard. Each of these commenters expressed concern that it would be burdensome and costly to require facilities that do not use arsenic as a raw material to demonstrate that emissions arising from trace arsenic contamination of other raw materials would not result in exceedance of the proposed annual uncontrolled emission limit of 0.4 Mg per year (0.44 ton per year). The commenters requested that EPA explicitly exclude from the promulgated regulation all furnaces that do not intentionally use arsenic as a raw material. One commenter noted that the arsenic content of raw materials is not routinely specified by raw material suppliers since arsenic is not known to impair glass quality. However, the commenter indicated that in a telephone survey of glass manufacturers and raw material suppliers, no evidence was found that arsenic exists in significant quantities as an impurity of raw material components. The only detectable quantity of arsenic was found in Green River soda-ash concentrations ranging from 0.03 to 0.5 ppm. These concentrations would result in maximum uncontrolled arsenic emissions of about 1.1 kilogram (2.5 pounds) per year from a typical 225 Mg/day (250 ton/day) glass container furnace. This commenter concluded that EPA should give no consideration to the arsenic content of raw materials since there is no reason to believe that the arsenic content of raw materials used for glass manufacture is any higher than it is raw materials used in other process industries. Another commenter, however, pointed out that for the size of furnace typically used to produce flat glass (450 to 545 Mg/day [500 to 600 tons/day]), trace amounts of arsenic in the raw materials on the order of 2 to 3 ppm by weight could result in uncontrolled arsenic emissions approaching the proposed emission cutoff of 0.4 Mg/year (0.44 tons/yr). The commenter is aware of only one conventional raw material that contains arsenic as an impurity. That one exception, an additive used in small amounts in producing body-colored glass, would result in arsenic emissions of less than one pound per year.

The EPA has examined the problems posed by the presence of arsenic as an impurity in various raw materials used in the production of glass, and has concluded, based on available information, that this source of arsenic is not expected to affect significantly the emissions of inorganic arsenic from glass manufacturing furnaces. The specific comment that appears to indicate that the presence of arsenic impurities may result in emissions approaching 0.4 Mg (0.44 ton) per year was closely examined. It was determined that the calculations present an unrealistic situation in presuming that all of the raw materials entering the furnace contain 2 to 3 ppm arsenic by weight, and that all of the arsenic entering the furnace is emitted. Because it would be uncommon for all raw materials to contain arsenic at that level, and because at least 70 percent of the arsenic is expected to be retained in the product, EPA has concluded that the emissions calculated in the example given in the comment are substantially overstated and not indicative of an actual condition that might occur.

The EPA has also independently investigated the concentration of arsenic found in the bulk raw materials commonly used in the glass industry (A–83–08/IV–B–12). During an emission test of an arsenic-using furnace, samples of the bulk raw materials were taken and analyzed for arsenic content. With the single exception of barium carbonate, the concentrations of arsenic in the raw materials from this plant were below the detection limits of the analytical method used. The measured concentration of arsenic in the barium carbonate sample was 2.32 ppm. However, barum carbonate is not widely used in large quantities within the glass industry. Even assuming that the concentration of arsenic in bulk raw materials is equal to the detection limit of the analytical methods used on the test samples, the maximum uncontrolled emissions of arsenic arising from raw material impurities would be about 0.19 Mg/yr (0.21 ton/yr) from a furnace producing 500 Mg/day (550 tons/day) of glass.

Based on all of the information available to the Agency, glass melting plants that do not use commercial arsenic as an ingredient of their batch composition would not emit enough arsenic to be affected by the promulgated uncontrolled emission limits of 0.4 Mg (0.44 ton) per year for new and modified furnaces and 2.5 Mg (2.75 tons) per year for existing furnaces. The EPA agrees it would be unreasonable to require demonstration of this; and, therefore, the applicability section of the promulgated regulation has been revised to exclude all furnaces that do not use commercial arsenic as a raw material. Commercial arsenic is defined as any form of arsenic that is produced by extracting arsenic from any arsenic-containing substance and is intended for sale or for intentional use in a manufacturing process.

Fugitive Emissions. The NRDC representative objected to EPA's reliance on compliance with OSHA standards for fugitive emissions of inorganic arsenic in the workplace. The NRDC felt it was not appropriate to consider OSHA standards in deciding not to propose standards for these emissions. The commenter stated that: (1) This reliance was based solely on statements made by company representatives, and had not been independently verified by the Agency; (2) although OSHA standards, if implemented, may provide protection to workers in glass manufacturing plants, they do not give persons living around the plants the enforcement power to compel compliance with the standards that would be available under the Clean Air Act; and (3) the Agency should, at the least, incorporate into a section 112 standard the equipment and work practice requirements needed to comply with the OSHA standards.

The Administrator believes that where standards established under separate authorities are effective in reducing emissions, redundant standards need not be established by EPA. The Agency establishes separate standards when there is evidence that either the control measures are not likely to remain in place or are unlikely to be properly operated and maintained. The EPA has again reviewed the emission sources at glass manufacturing plants to determine any need for controls beyond those required by OSHA.

Information gathered after proposal during visits to glass plants that use arsenic indicated that fugitive emissions from some plants may not be controlled. As a result of this finding, EPA has estimated the magnitude of the emissions of inorganic arsenic that could arise from fugitive sources within glass manufacturing plants (A–83–03/

IV–B–11). These estimates were based on published fugitive emission factors for various material handling operations, as well as on data gathered during visits to glass plants that use arsenic. To be conservative, "worst case" conditions were assumed in estimating potential fugitive arsenic emissions. For example, in this analysis it was assumed that the plant uses unusually high concentrations of arsenic (7 kg/Mg [14 lb/ton]) in the batch raw materials. The major potential source of fugitive particulate emissions at glass manufacturing plants are the material handling operations associated with the unloading, storage, and weighing of the bulk raw materials. However, arsenic is not present during these operations. Arsenic is added later, just prior to mixing the batch. Fugitive emissions of arsenic could occur during mixing of the batch materials, during the transfer of these materials to the furnaces, when the materials are charged into the furnace, and when control devices (if used) are emptied and the waste products are removed for disposal or recycled to the melting furnace. In considering all of the possible sources of fugitive emissions from glass manufacturing plants, and employing the best information currently available to the Agency, the EPA estimated that the maximum fugitive emissions of arsenic from a large, 545 Mg per day (600 tons per day), plant would amount to 0.21 Mg/yr (0.23 ton/yr) if emission control devices were not used. For a plant of this size, uncontrolled stack emissions would be about 145 Mg/yr (160 tons/yr). The same plant, if controlled, would emit about 7 Mg/yr (8 tons/yr) out of the stack(s); fugitive arsenic emissions from a 545 Mg/day (600 tons/day) controlled plant were estimated to be 0.33 Mg/yr (0.36 ton/yr) under worst case conditions. Because all of the plants known to use arsenic have capacities less than 545 Mg/day (600 tons/day), and because the estimates summarized above are based on "worst case" assumptions, the EPA has concluded that fugitive emissions of inorganic arsenic from glass manufacturing plants are negligible, and, hence, risks are expected to be small; thus, fugitive emissions are not expected to endanger public health. Therefore, the promulgated standard neither requires controls for fugitive inorganic arsenic emissions at glass manufacturing plants nor incorporates OSHA requirements into the promulgated standard as suggested by the commenter.

Allowances and Exemptions. One commenter representing Corning Glass Works requested that the EPA include provisions for conducting normal maintenance on control devices. Most glass furnaces operate continuously for a period of years, while emission control devices require frequent maintenance. The commenter stated that the maintenance requirement on an electrostatic precipitator is about 144 hours per year and that provisions should be made for by-pass of the control device while maintenance is being conducted.

The EPA has investigated the cost and environmental impacts associated with performing routine maintenance on emission control devices installed on affected glass furnaces (A–83–08/IV–B–10). Two alternatives were considered. The first alternative would be to require the glass furnace to shut down during these maintenance periods in order to avoid uncontrolled emissions of arsenic. The second alternative would allow furnace operators to by-pass the control device for a limited period of time for maintenance purposes. Emissions of arsenic during these periods would not be controlled. The EPA analysis compared the increase in the cost incurred by a model manufacturing plant that would result from the first alternative to the increase in emissions that would follow from the by-pass alternative. In this analysis both large and small furnaces and high and low glass production costs were considered. In total, the cost and environmental impacts associated with the alternative requirements were evaluated for eight different cases.

In the first four cases, the impacts were calculated for two furnace sizes (45 and 136 Mg/day [50 and 150 tons per day]) and for two levels of specific arsenic emissions (0.025 kg/Mg of glass produced and 0.05 kg/Mg of glass produced [0.05 lb and 1.00 lb ton/of glass]). In the first four cases, relatively low glass production costs were assumed, on the order of $0.75/kg ($0.34/lb) of product. The second four cases assumed the same furnace sizes and specific arsenic emission rates, but were based on the assumption of a glass with higher production costs of $4.19/kg ($1.90/lb). These values represent the low and high end of the ranges for actual glass furnaces that use arsenic. In all cases, it was assumed that the time required for maintenance of control devices is 144 hours per year.

The results of this analysis showed that a large furnace with a high arsenic emission rate could emit up to 0.41 Mg (0.45 ton) of arsenic during the 144 hours that the control device is by-passed. Small furnaces with low arsenic emission rates would emit 0.01 Mg (0.01 ton) of arsenic during this maintenance period. The annual costs of furnace shutdown were estimated to range from a low of $63,000 for a small furnace producing a low-cost glass, to a high of $1,000,000 for a large furnace producing a high-cost glass. Thus, the cost effectiveness of requiring all arsenic-using furnaces to be shut down while maintenance is carried out on emission control devices would range from about $463,000 per Mg ($420,000 per ton) of arsenic removed to over $51,800,000 per Mg ($47,000,000 per ton) of arsenic removed.

Because the economic impacts of requiring furnaces to be temporarily shut down while maintenance is performed on emission control devices would be excessive in some cases, and because the use of well-maintained control devices is essential in effectively controlling arsenic emissions on a continuing basis, the promulgated standard allows emission control devices installed on furnaces affected by the standard to be by-passed for purposes of conducting necessary maintenance. The EPA has also determined, however, that inorganic arsenic emissions from glass melting furnaces can be reduced by implementing certain work practices during maintenance periods. Therefore, each owner or operator of an affected furnace who needs to by-pass the control device for maintenance purposes is required to submit a plan to the Administrator that details (1) the length of time it will be necessary to by-pass the control device; (2) the emissions of arsenic that would occur during maintenance periods if no steps were taken to reduce them; (3) the procedures and work practices that will be implemented to minimize arsenic emissions during maintenance periods; and (4) the expected reduction in emissions of arsenic achieved by the implementation of these procedures and work practices. Only after approval by the Administrator of this plan will the by-pass of an emission control device by allowed.

In some cases, emissions of inorganic arsenic can be prevented entirely while control devices are undergoing maintenance. For example, control device maintenance should be scheduled during periods of normal furnace shutdown whenever possible. For some plants, it may be feasible to switch production temporarily during periods of control device maintenance to glasses that do not contain arsenic. All facilities affected by the regulation should make maximum use of control devices that are divided into two or

more independently operated sections. Use of so-called "sectionalized" control devices enables maintenance to be performed on one section of the device without affecting the operation of the other(s). Other steps that can be taken to minimize emissions of inorganic arsenic during maintenance of control devices are the maximum use of cullet, the temporary reduction in arsenic feed, or the temporary reduction of furnace output.

Format of the Standard

Two commenters on the proposed regulation stated that using the emission rates for total particulate allowed under the standard of performance for new sources (NSPS) as the basis of the control requirement for an arsenic NESHAP would lead to numerous problems in demonstrating compliance with the regulation. Corning Glass Works provided several examples in which multiple furnaces, each melting a different type of glass, are exhausted to a common stack. Because the proposed emission rates were different for different glass types, the commenter felt that it would be virtually impossible to determine compliance for each possible combination of furnaces and glass types. The commenter also noted that some furnaces currently equipped with the best control technology available would not comply with the proposed emission rates for total particulates. The New Jersey Department of Environmental Protection recommended that the Agency establish an efficiency standard for arsenic removal, rather than an emission rate for total particulate matter.

In carefully evaluating all of the comments and available data, the Agency has determined that a control requirement based on a percent reduction of arsenic emissions is preferable to a limit on emissions of total particulates from glass melting furnaces. Some furnaces in the pressed and blown segment of the industry are used to melt various types of glass. The type of glass being melted in these furnaces may change frequently, causing a corresponding change in particulate emission rates. No satisfactory approach could be developed for determining compliance with a particulate emission rate on a continuing basis under these circumstances, or for prorating emissions from multiple furnaces that exhaust to a common stack. The EPA has also found that particulate emission rates from arsenic-using furnaces that are currently uncontrolled are, in some instances, significantly less than would be normally expected. Thus, these furnaces could conceivably meet the proposed particulate emission limit by reducing particulate emissions by as little as 45 percent. In this case, the corresponding reduction achieved in arsenic emissions would be only 40 to 45 percent, even though all of the emitted arsenic may be in the particulate matter. Therefore, EPA has found that control equipment that would meet the proposed particulate emission limits may not, in all instances, represent the most effective control technology for arsenic emissions. Finally, EPA has assembled all of the available data on control devices currently installed on arsenic-using glass furnaces. Many of these control devices achieve more than 95 percent reduction in total arsenic emissions, although some of them are not capable of reducing emissions of total particulates to the level prescribed by the NSPS. The costs of upgrading these control devices to meet the NSPS particulate emission rates were investigated and found to be excessive when compared to the additional reduction in arsenic emissions that would be achieved. There is one disadvantage of an emission limit based on arsenic emission reduction efficiency—the increased cost of testing the inlet and outlet of the control device. This type of testing using Test Method 108 would cost about $13,250 for a typical furnace as opposed to about $10,000 for particulate matter testing using Reference Method 5. The EPA believes, however, that the additional testing costs involved in determining the efficiency of a control device in reducing arsenic emissions are warranted, considering the various problems and impacts associated with the proposed emission limits for total particulates. Therefore, the format of the final standard is in terms of percent reduction of arsenic emissions.

Control Technology

Several commenters addressed the issue of the level of control of arsenic emissions achievable by conventional particulate control technologies. Many of these comments were concerned with the effect of temperature on the percentage of total arsenic emitted in particulate form, and, therefore, available for removal by the control devices.

As discussed in the preamble to the proposed regulation, theoretical considerations indicate that all of the arsenic emitted from glass melting furnaces would be in the vapor phase at typical furnace exhaust temperatures. At the time of proposal, however, data from EPA tests on two particulate control devices installed on glass melting furnaces that use liquid arsenic acid as a raw material showed that more than 90 percent of the emitted arsenic was in particulate form and collected by the control devices. On the basis of these data, EPA concluded that cooling of the exhaust gases may not be effective in increasing the efficiency of particulate control devices in reducing arsenic emissions from glass melting furnaces. The EPA acknowledged at the time, however, that emissions from furnaces using powdered arsenic trioxide rather than liquid arsenic acid might consist of substantially more vapor-phase arsenic. It was also uncertain whether the relationship between temperature and the proportion of arsenic emitted in the solid phase was the same for all types of glass.

In order to resolve these questions, the EPA performed five emission tests after proposal on arsenic-using glass melting furnaces. The tests proved helpful in demonstrating that the use of powdered arsenic trioxide instead of arsenic acid had little or no effect on the proportion of arsenic emitted in the solid phase. The results of these tests were inconclusive, however, as to the effect of temperature on the proportion of arsenic in the solid phase for different types of glass. The EPA presented a summary of the data in the **Federal Register** on March 20, 1984 (49 FR 10278), and tentatively concluded that a decrease in temperature would result in an increase in particulate arsenic for soda-lime furnaces, but not for other types of furnaces. These data are discussed fully in that notice and in the BID for the promulgated standard. In developing the requirements in the final standard, EPA considered public comments on the March 20, 1984, **Federal Register** notice and the results of two additional emission tests that are discussed below.

Control Methods for Soda-Lime Furnaces. The representative for Corning Glass Works stated that data from one of the commenter's soda-lime furnaces indicate that the percentage of arsenic in the particulate matter increases, rather than decreases, with increasing exhaust gas temperature. The proportion of arsenic found in the particulate from this furnace varied widely, however, from a low of about 50 percent to a high of 99 percent. Data provided by the commenter for a furnace producing aluminosilicate glass also showed a wide variability in the proportion of total arsenic that was emitted as particulate matter. For 23 representative samples collected on this furnace, from about 30 to 100 percent of the total arsenic was emitted as particulate. The commenter concluded that temperature is not the only factor

affecting the fraction of total arsenic emitted as particulate matter. The commenter for Owens-Illinois challenged the validity of the data presented by EPA in the March 20, 1984, **Federal Register**. This commenter stated that the data were flawed and did not conclusively demonstrate that there is a relationship between temperature and the fraction of total arsenic emitted in particulate form. The commenter believes that EPA's earlier conclusion that at least 90 percent control of arsenic emissions can be achieved by particulate control devices is correct. The NRDC stated that the data presented by EPA demonstrate that emissions of particulate arsenic increase sharply as the temperature of the furnace exhaust gases decreases, and that EPA should require exhaust gases from soda-lime furnaces to be cooled to 121°C (250°F) prior to entering a particulate control device.

The results of the first test on a furnace melting soda-lime glass showed that less of the total arsenic emitted from the furnace was in particulate form compared to the previous tests (about 74 percent compared to more than 90 percent) at the standard EPA Method 108 sampling temperature of 121°C (250°F). In addition, samples taken simultaneously at three different temperatures (121°C, 204°C, and 288°C) showed that the amount of arsenic in the particulate matter generally increased as the filtered gas was cooled from 288°C (550°F) to 121°C (250°F). However, the amount of vapor-phase arsenic detected in these samples did not decrease in proportion to the increase observed in particulate arsenic, and the total amount of arsenic collected at 288°C (550°F) was uniformly less than the total amount collected at a filtered gas termperature of 121°C (250°F). The results of this test were also complicated by the fact that some of the filters used during the test were later found to be torn. Because there was not a decrease in vapor-phase arsenic emissions in proportion to the apparent increase in particulate arsenic, no clear basis exists for concluding that cooling of the exhaust gases causes a significant amount of vapor-phase arsenic to condense and form particulate arsenic. For this reason, the Agency has no assurance that cooling of furnace exhaust gases would result in a significantly higher arsenic removal efficiency. The Agency agrees with the commenter that the data obtained from the first test on a soda-lime furnace are inconclusive, and are insufficient to support a limit on the temperature of the gases at the inlet of particulate control devices.

After publication of the notice in the **Federal Register** on March 20, 1984, a second arsenic emission test was performed on a soda-lime glass melting furnace. No significant amounts of vapor-phase arsenic were found in the emissions from this furnace regardless of the temperature of the filtered gas. In all test runs, more than 99 percent of the total arsenic was captured as particulate matter. Therefore, even if the results of the first test on a soda-lime furnace had quantified a relationship between temperature and the amount of arsenic emitted as particulate matter, this relationship could not be generalized to all furnaces producing soda-lime glass.

The EPA also performed emission tests on a glass melting furnace producing an aluminosilicate glass. Although the furnace is not presently equipped with a permanent control device, a pilot-scale fabric filter system had been recently installed on the furnace. The test program included both EPA Method 108 and single-point sampling, as well as a series of performance tests on the pilot-scale fabric filter. The results of these tests did conclusively demonstrate that cooling of the furnace exhaust gases caused gaseous arsenic to condense, and thereby increased the effectiveness of the fabric filter in reducing arsenic emissions. When the temperature of the exhaust gas was cooled to below 121°C (250°F), control efficiencies ranged from about 75 percent to 97 percent and averaged about 87 percent. When the temperature of the exhaust gas was maintained above 121°C (250°F), control efficiencies ranged from about 58 percent to 82 percent and averaged about 71 percent. The data also indicated that the effectiveness of cooling is sensitive to the concentration of gaseous arsenic in the exhaust gas and to the residence time of the gas stream at lower temperatures. However, the data collected during these tests are not sufficient to correlate specific temperatures to specific removal efficiencies.

Although the available data to indicate that arsenic emissions from some glass melting furnaces may occur less predominantly as particulate matter than was previously believed, and that cooling can be effective in increasing the proportion of total arsenic emitted as particulate matter, no correlations have been identified between the proportion of arsenic emitted as particulate matter and the type of glass produced, the type of melting furnace used, the type of arsenic added to the raw materials, or any other source characteristics. In addition, EPA does not have sufficient data to conclude that cooling of furnace exhaust gases would be effective in incrasing the efficiency of a control device in all cases. Therefore, a requirement that the exhaust gas from all affected furnaces be cooled to some specific level prior to entering a control device would result in increased costs with no guarantee that additional control would be achieved. The Agency does believe, nonetheless, that both the format and the level of the final standard are sufficient to ensure that furnace exhaust gases are cooled in those instances where the effectiveness of control is dependent on the operating temperature of the control device.

Elimination of Arsenic in Glass Manufacturing

Four commenters representing Owens-Illinois, the Glass Packaging Institute, NRDC, and legal counsel for Container Glass Manufacturers, discussed the elimination of arsenic as a raw material in the manufacture of glass. Two of these commenters stated that use of arsenic in the manufacture of glass containers has been completely eliminated, and that there is no technical reason to use arsenic in the manufacture of glass container products. These two commenters made no objection to a requirement that arsenic be eliminated from glass container manufacturing, as long as no additional administrative burdens were placed upon container glass manufacturers. The commenter for Owens-Illinois stated that the use of arsenic in the manufacture of pressed and blown glassware is essential and that no acceptable substitutes are currently available. Without arsenic, tableware glass tends to have an objectionable green tint. The NRDC objected to the contention that the elimination of arsenic in pressed and blown glass manufacturing would have serious consequences for this sector of the glass manufacturing industry. The commenter stated that the only benefit to the glass industry stemming from the use of arsenic is that it improves the cosmetic qualities of the glass by making it clearer. The NRDC asserted that cosmetic benefits are insufficient to justify public exposure to arsenic emissions and urged that the standard be amended to eliminate arsenic from the manufacture of pressed and blown glass. The commenter also stated that if there are specialized, nonsubstitutable uses for arsenic that rise above the level of cosmetics, then EPA should set a standard requiring extremely stringent

controls for a small number of furnaces dedicated to such uses.

Based on the public comments received and the information available before and after proposal of the standard, the EPA has concluded that the container glass, flat glass, and wool fiberglass segments of the glass manufacturing industry do not use arsenic as a raw material in the manufacturing process. Because the promulgated standard applies only to furnaces that use arsenic as a raw material, no furnaces in the container, flat, or wool fiberglass segments of the glass industry would be affected. Owners or operators of furnaces that do not melt a glass in which arsenic is added as a raw material are not subject to the requirements of this standard, including those for reporting and recordkeeping. If an owner or operator of a furnace in any of these segments of the industry were to begin using arsenic, the furnace would be subject to the standard.

Arsenic is used in the manufacture of some products in the pressed and blown segment of the glass industry, however. A case-by-case assessment of the potential to eliminate arsenic use was conducted by contacting all six major manufacturers of pressed and blown soda-lime glassware (A–83–08/IV–B–13). Although some companies have been successful in removing arsenic entirely from their raw batch materials, other companies producing similar types of glass have been unable to obtain a product of acceptable quality when arsenic is removed. Although the qualities achieved by the inclusion of arsenic (clarity, elimination of unwanted color, etc.) are "cosmetic," they do have economic value, and reflect certain physical attributes of the final product that are required by the consumer. Demand for these products is inherently connected to their physical appearance which, therefore, has a tangible economic value. The EPA expects that producers of pressed and blown glassware will continue to try to eliminate arsenic from their batch recipes to avoid being subject to the requirements of this standard. It is not clear, however, when (and if) these efforts will be successful. Because a requirement to eliminate the use of arsenic in the pressed and blown glass segment of the industry could cause severe economic impacts for some producers, it is not included in the final standard but will be evaluated as part of the 5-year review of the standard.

Costs and Economic Impact

The Corning Glass Works representative stated the belief that some plants would close down if the proposed standard were promulgated, but did not provide any data to support that statement. Another commenter representing Owens-Illinois stated that the monetary costs required to comply with the standard would severlly affect an already depressed market, which is facing significant and increasing competition from foreign producers of glass tableware. Between 1979 and 1982, the compound growth in imports has been 6.8 percent, while growth in the domestic share of the market has declined by 0.4 percent. In addition, over the past 10 years there has been a decline in real total dollar market value for the U.S. tableware industry. Two tableware manufacturers have recently closed plants. The strong U.S. dollar will continue to favor imports of glass tableware. The commenter stated that reducing emissions to the level proposed by the standard is estimated to cost $15.65/Mg ($14.20/ton) of glass. These costs would increase operating costs by over $2 million per year. This represents an increase of 2.1 percent in production costs over 1982 levels, which would have decreased 1982 profits by 25 percent.

The EPA recognizes that machine-made glass tableware manufacturers are facing competition from foreign producers of glass tableware; and in the economic analysis conducted after proposal, it was assumed that prices cannot be raised and that companies must absorb the control costs as decreased profits. (See Appendix B of the BID for promulgated standard.) The costs cited by the commenter were for a specific plant owned and operated by the commenter. The costs and economic impacts of the promulgated standard were analyzed for this plant, and EPA concluded that they would be disproportionately high compared to the risk reduction that would be achieved through compliance with the standard. Therefore, while the plant is one of several that would have had to install control devices to achieve the proposed standard, it is expected to have average annual arsenic emissions below the revised emission limit for existing furnaces in the final standard.

The economic analysis indicated a potential closure for only one furnace currently using arsenic and with arsenic emissions above the revised cutoff. Company representatives have informed EPA, however, that they plan to eliminate the use of arsenic at this furnace; therefore, it would not be affected by the standard. The EPA's analysis indicated that no other furnace closures would result from the standard.

One commenter for NRDC stated that the "worst case" economic analysis conducted by EPA has been grossly exaggerated in reaching a conclusion that under certain conditions the proposed regulation could cause some furnaces to close. Further, the commenter stated that the assertion that the elimination of arsenic from pressed and blown glass would make U.S. manufactured glassware uncompetitive with glassware imported from countries that do not restrict arsenic use has not been supported by hard data or analysis. The commenter stated that if the regulation does impose a competitive disadvantage on U.S. glass manufacturers, other steps should be taken to protect their position, such as the imposition of duties on imports of arsenic-containing glass.

The revised economic analysis of the promulgated standard explains that cost absorption (profit reduction) by producers, rather than cost pass-through to consumers, is more likely to result because of the competitive role of imports. Using this assumption, all control costs were analyzed as additions to baseline operating expenses. No closures are anticipated as a result of the promulgated standard.

The EPA's assertion that U.S. manufacturers of pressed and blown glass would be at a competitive disadvantage to foreign manufacturers if arsenic were eliminated as a glass additive is based on the fact that the properties that arsenic provides for glass products have an economic value. Such properties as clarity are desired by the consumer and, thus, are considered necessary for certain products to be competitive in the market. The economic value of these properties has not been quantified but is, nevertheless, real. The commenter's suggestion that duties be imposed on imports of pressed and blown glass that contain arsenic cannot be implemented because EPA does not have legislative authority to impose such duties or to take any similar measure to reduce possible competition to U.S. glassware manufacturers by foreign glass.

Monitoring and Measurement Methods

One commenter for the Toledo, Ohio, Environmental Services Agency supported EPA's position that a material balance or other non-stack test data be used to establish whether a facility is affected by the proposed regulation and to monitor compliance. However, the commenter requested clarification on two points. First, how much confidence does the EPA have in the estimates of arsenic retention in glass? Specifically,

should the low end of the estimate, 70 percent retention, be used in estimating uncontrolled arsenic emissions? Second, how should the arsenic content of the cullet be determined? Is it accurate to assume that all of the arsenic entering with the cullet remains in the glass, and thus has no impact on arsenic emissions?

The estimates of the amount of arsenic in the glass product were provided by the glass industry. Data obtained from tests conducted by EPA have been found to be reasonably consistent with data supplied by industry representatives. It should be noted, however, that the amount of arsenic retained in the glass can vary significantly according to the specific recipe used in making glass.

The 70 percent retention value published in the proposal BID (EPA–450/3–83–011a) was supplied by industry representatives as a typical retention rate for lead silicate type glass. Data gathered by the EPA after proposal have demonstrated that at least 70 percent of the arsenic is retained in the glass product, regardless of its composition. However, the amount of arsenic retained in the glass product is not strictly a function of the type of glass produced. For any given type of glass, the percentage of arsenic retained in the product can vary widely. For example, data collected by EPA show that the percent of arsenic retained in soda-lime glass can range from about 70 percent to about 90 percent. Therefore, in estimating uncontrolled arsenic emissions the arsenic retention value should be based on actual laboratory analysis of the glass produced in a specific melting furnace. If analytical data are not available, an assumed retention value of 70 percent would provide an estimate of the maximum rate of uncontrolled arsenic emissions from the glass melting furnace. In developing a material balance for monitoring compliance, it is the responsibility of the furnace owner or operator to provide a theoretical emission factor that accurately takes into account the amount of arsenic retained in the glass. Retention values should be based on actual analytical data for the specific type(s) of glass produced by the affected furnace.

The amount of arsenic entering the furnace in the cullet should be explicitly accounted for. Some furnaces may add mixed cullet that is not exactly similar in chemical composition to the type of glass being melted. When the cullet added is identical to the glass being produced, the percentage of arsenic in the cullet can be assumed to be identical to the percentage retained in the glass. Thus, the arsenic entering with the cullet would not have any impact on inorganic arsenic emissions. When this assumption is made, however, care must be taken to calculate the amount of arsenic retained in the glass on the basis of the percent of product weight that is derived from fresh raw materials rather than on the basis of the total product weight. This is discussed in more detail in the BID for the promulgated standard.

Opacity Monitoring

Two commenters (Owens-Illinois and Corning Glass Works) stated that the proposed requirement for opacity monitoring of emissions exiting the control device in unnecessary and inconsistent with the NSPS for glass manufacturing, which does not require opacity monitoring. The commenter for Owens-Illinois indicated that opacity monitoring would represent an unjustifiable cost burden. The commenter for Corning stated that opacity monitoring is administratively burdensome, and readings cannot be correlated with emissions of either inorganic arsenic or particulate, especially when multiple furnaces are exhausted to a common stack. The commenter noted that excessive stack opacity occurs in one of the commenter's furnaces as a result of gaseous fluoride emissions from melting one type of glass, and that this opacity is unrelated to inorganic arsenic or total particulate emissions.

The requirement for opacity monitoring was proposed as a means to ensure that emission control devices installed on arsenic-using glass furnaces are continuously operated and maintained in a manner consistent with the procedures followed to comply with the standard initially. These requirements have been retained in the promulgated standard. Under the glass manufacturing NSPS promulgated October 19, 1984, opacity monitoring is not required for glass furnaces equipped with control devices. However, opacity monitoring is required for furnaces using process modifications to meet the NSPS. The NSPS requirement for glass manufacturing plants has no bearing on this action because the intent of this regulation is to control a hazardous air pollutant that is not specifically regulated under the NSPS. With respect to the costs of opacity monitoring, EPA has determined that the costs involved are reasonable in light of the additional information provided to the owner and operator of a control system and the improved effectiveness in enforcement that will be gained as a result of this requirement. No information has been presented to the Agency that indicates that continuous monitoring of opacity represents an unjustifiable cost burden.

The promulgated standard does not set any specific limit on stack gas opacity based on correlations between opacity and emissions of either particulate matter or of arsenic. Rather, the promulgated standard requires that a 6-minute average reference opacity value for a given furnace be determined during compliance testing. Any subsequent exceedance of the reference opacity value established during a compliance test must be reported semiannually. If excess opacity occurs as a result of a change in the composition of the glass being melted in a furnace, this cause should be cited in the report. Alternatively, if multiple types of glass are typically melted in a single furnace, and stack gas opacity is expected to be significantly higher for one type of glass, the initial compliance test may be performed while this glass is being melted. Finally, paragraph 61.163(h) of the promulgated standard allows owners or operators of affected furnaces to petition the Administrator for approval of any alternative continuous monitoring system that can be demonstrated to provide accurate and representative monitoring of a properly operating control device.

Several commenters suggested changes in the proposed Method 108. These suggestions and the rationale for changes are discussed in the BID for the promulgated standard. Briefly, changes in Method 108 include deletion of all references to SO_2 collection and analysis, a change in the sampling temperature for glass furnaces to 121°C±14°C (250°F±25°F), a revision requiring that audit samples be analyzed at least once per month, and elimination of the digestion procedure when Method 108 is applied to glass furnaces.

One commenter for the Department of Environmental Resources in Harrisburg, Pennsylvania, saw no reason to differentiate between sources firing fuels with more than, or less than, 0.5 percent by weight sulfur content. The Agency agrees that there is no reason to differentiate between sources firing fuel with greater than 0.5 percent by weight sulfur from those with less than 0.5 percent, and has revised the standard accordingly.

The commenter for Corning Glass Works stated that the time allowances for testing under the proposed § 61.163 were inflexible and inadequate, and that the specified testing procedures were inflexible and unnecessary. In support, the commenter provided data showing that other analytical methods can

provide similar results to those obtained when using the specified EPA Method 108 procedures.

The major difference between the procedure proposed by the commenter and the EPA Method 108 procedure was in the method used in determining arsenic concentration of the samples. The procedure proposed by the commenter employed the colorimetric molybdenum blue method instead of atomic absorption. There were also slight differences in the types of reagents employed, and the procedures followed in leaching the materials collected by the probe, filter, and impingers. In the example provided, the amount of arsenic detected when using the molybdenum blue method was 21 mg, 5 mg, and 0.2 mg in the filter, probe, and impingers, respectively. These results compared to detected arsenic levels when using EPA Method 108 procedures of 21 mg in the filter, 1 mg in the probe, and 0.4 mg in the impingers.

Under 40 CFR 61.14 in Subpart A—General Provisions, the Administrator may allow the use of any alternative method that he has determined to be adequate for indicating whether a source is in compliance. Anyone wishing to have a method approved as an alternative may submit comparative date between the candidate method and the reference method for evaluation by the Administrator.

Reporting Requirements

The commenter for Owens-Illinois stated that it is unreasonable and irrational to require 12-month projections of arsenic emissions from glass plants and that semiannual reporting of past emissions should be sufficient for enforcement purposes.

The requirement that inorganic arsenic emissions be projected over a 12-month period is necessary in order for the operator of the glass manufacturing furnace to anticipate the level of control that will be required for each facility. Only in this way can possible instances of noncompliance with the standard be prevented. The calculation of past emissions may reveal actual instances of noncompliance, but only after unacceptable levels of inorganic arsenic have been emitted into the atmosphere. This result would be inconsistent with the objectives of section 112 of the Act.

The commenter for Corning Glass Works stated that many administrative problems could result with EPA's semiannual reporting requirements under the proposed § 61.163. The administrative problems referred to in this comment have not been specified. However, it is EPA's conclusion that the reporting, recordkeeping, and other requirements contained in the standard are both necessary to the implementation of the regulation and reasonable in their impact on the glass manufacturing industry and individual furnace owners and operators.

Impacts of Reporting and Recordkeeping Requirements

The EPA believes that the required reporting and recordkeeping requirements are necessary to assist the Agency in (1) identifying sources; (2) determining initial compliance; and (3) enforcing the standard.

The Paperwork Reduction Act (PRA) of 1980 (Pub. L. 96–511) requires that the Office of Management and Budget (OMB) approve reporting and recordkeeping requirements that qualify as an "information collection request" (ICR). To accommodate OMB review, EPA uses 3-year periods in its impact analysis procedures for estimating the labor-hour burden of reporting and recordkeeping requirements.

The average annual burden on owners and operators of glass maunfacturing plants to comply with the reporting and recordkeeping requirements of the standard over the first 3 years after the effective date is estimated to be about 23,100 labor-hours.

V. Arsenic Trioxide and Metallic Arsenic Production Facilities

As discussed in the overview section of this preamble, on July 20, 1983, EPA proposed a standard in the **Federal Register** for primary copper smelters procesing feed materials with 0.7 percent or greater arsenic. This proposed standard would have affected only the ASARCO smelter in Tacoma, Washington. The EPA proposed for comment additional controls for fugitive emission sources in the copper smelter and the arsenic plants at the ASARCO-Tacoma facility in a **Federal Register** notice on December 16, 1983 (48 FR 55880). On June 27, 1984, ASARCO announced plans to close its primary copper smelting operations at Tacoma, Washington by June 30, 1985; and subsequently ceased copper smelting operations at Tacoma. In the June 1984 announcements, ASARCO also stated that it will continue to operate the arsenic trioxide and metallic arsenic plants at the site and that the plants will be operated in an environmentally acceptable manner. From discussions with ASARCO personnel, EPA has concluded that there is some uncertainty regarding the process to be used and the future configuration of the arsenic trioxide plant. According to public statements, ASARCO is considering several different modifications to its arsenic trioxide production process including the use of a wet leaching process or enclosure of the Godfrey roasters and control of emissions using a fabric filter collector. ASARCO expects that these modifications will significantly reduce arsenic emissions from the facility, but has not yet completed detailed plans or a schedule for this change. Consequently, the Administrator decided that the proposed fugitive emission standard for arsenic plants should be promulgated. This part of the preamble presents the standard for arsenic trioxide and metallic arsenic production facilities, its basis, and a discussion of the comments on the proposed standard.

Summary of Promulgated Standard

Applicability

The standard that is being promulgated today applies to each new and existing arsenic trioxide production facility processing low-grade arsenic bearing materials by a pyrometallurgical (roasting and condensation) process and to each new and existing metallic arsenic facility. Facilities that produce arsenic trioxide solely by wet leaching or extraction processes are not subject to this standard.

Standard

The standard requires the identification of potential arsenic emission sources and preparation and implementation of a detailed inspection, maintenance, and housekeeping plan that will be used to minimize emissions from the arsenic trioxide and metallic arsentic production facilities. The standard requires the plan to fulfill the stated objectives of: (1) Cleanup of arsenic containing materials; (2) regular maintenance and inspection of process, conveying, and air pollution control equipment; and (3) reduction of emissions during malfunctions to the maximum extent feasible.

Requirements for Periods of Excess Emissions

During periods of startup and shutdown, the standard requires that emissions of inorganic arsenic be minimized to the greatest extent possible. The standard also requires the following measures to minimize emissions from malfunctions and upsets: (1) All steps necessary to limit emissions, including curtailing operations until the equipment is repaired or the process is operating normally; (2) establishment of a plan that describes specific actions to be taken during malfunctions and upsets;

and (3) a routine maintenance program for process, conveying, and emission control equipment.

Compliance Provisions

The standard requires compliance within 90 days of today's date, unless a waiver of compliance is obtained from the Administrator. If a waiver of compliance is granted, the plan shall be submitted on a date set by the Administrator. Waivers can be granted for a period of time needed to install controls to comply with the standard, not to exceed 2 years from today's date.

Continuous Monitoring

Continuous opacity monitoring is required for process emissions that exist from a control device. The standard requires that a reference opacity level be established for each emission stream based on the highest 6-minute average opacity level monitored during a 36-hour evaluation period. Thereafter, occurrences of opacity readings above the respective reference level must be reported as exceedances to the Administrator along with information describing the cause of the exeedances.

Recordkeeping and Reporting Requirements

Owners or operators of sources covered by the standard will be subject to the reporting and recordkeeping requirements of the standard as well as those prescribed in the General Provisions (Subpart A) of 40 CFR Part 61. Reporting and recordkeeping requirements of the General Provisions were discussed in the preamble to the proposed standards (48 FR 33112). Specific reporting requirements of the promulgated standard include: (2) Quarterly reports of occurrences of excess opacity readings and ambient arsenic concentrations; and (1) semiannual status reports on pilot plant studies on alternative arsenic trioxide production processes. Owners and operators are also required to submit the following reports for the opacity monitoring system: (1) Evaluation to verify the operational status of the opacity monitors; and (2) report of reference opacity level and supporting data.

Records of supporting data for the reports described above must be maintained at the source for a period of 2 years and made available to the Administrator upon request. These records will include the logs demonstrating compliance with the general work practices and records of all opacity measurements and repairs to the monitoring device.

Summary of Enviromental, Health, Energy, and Economic Impacts

The standard being established today affects new and existing arsenic trioxide and metallic arsenic production facilities. It is expected that the standard will affect one facility, the arsenic plant at ASARCO-Tacoma.

The standard is expected to reduce emissions from malfunctions and upsets in the arsenic plant and to reduce reentrainment of arsenic-containing materials from plant surfaces. However, the impact of the standard on fugitive emissions from the arsenic plant cannot be quantified because of the difficulties inherent in estimating fugitive emissions, the unpredictability of malfunctions, and the considerable uncertainties regarding the processes and operations that will be used at the facility in the future. The standard is based on application of control measures that are necessary and are applicable at this time, and is not based on application of a quantitative risk management approach.

Application of the required housekeeping and maintenance provisions should have no effect on the solid waste, water, or energy impacts of the facility. Annualized costs required to comply with the standard are estimated to be about $265,000. The primary economic impacts associated with the standard are projected small decreases in profitability for the ASARCO-Tacoma arsenic plant, if costs cannot be passed through. If costs are passed forward in the form of a price increase, it is estimated that the standard will result in less than a 5 percent increase in the price of arsenic trioxide. This standard is not expected to cause closure of the affected plant.

Significant Changes Since Proposal

A number of major changes have been made to the requirements proposed on July 20, 1983, and December 16, 1983. These changes are: (1) Deletion of specific equipment requirements for the arsenic plant. The proposed requirements for modifications to equipment in the arsenic plant have been removed from the standard. These modifications are not being required because either the equipment is in place and likely to remain in place or there is a more cost-effective means of achieving the emission reduction; (2) Modification of the proposed work practices. While the proposed requirement for preparation of an inspection, maintenance, and housekeeping plan has been retained, specific aspects have been modified. The final requirements for an approvable plan do not require the inspector to follow a prescribed route. In addition, the proposed requirement to shut down malfunctioning equipment until it is repaired has been modified to require the source to describe the time and actions required to curtail increased emissions due to malfunctions; and (3) Clarification of the recordkeeping and reporting requirements provisions and inclusion of minor new provisions. The standard requires quarterly reporting of excess opacity readings and of ambient arsenic concentration monitoring data and semiannual status reports on pilot plant studies on alternative arsenic trioxide production processes. The basis for the changes is described in the Discussion of Comments section of this part of the preamble.

Additional Analyses

Since proposal of the standards on July 20, 1983 (48 FR 33112), EPA has developed estimates of process and fugitive emissions from the arsenic plant and has identified additional control measures to reduce arsenic emissions from the facility. These revised emission estimates are based on an on-site emission inventory and emission testing.

Emission estimates for the arsenic plant fabric filter collector are based on the results of EPA emission tests conducted in September 1983. Operation of the arsenic trioxide plant and the metallic arsenic plant were closely monitored during the tests to ensure that testing was conducted during normal operations. These test results showed average outlet arsenic concentrations and mass emission rates of 3.17 mg/dscm (0.0014 gr/dscf) and 0.15 kg/h (0.33 lb/h), respectively. These results represent an average collection efficiency for the fabric filter collector greater than 99 percent.

Potential sources of low-level fugitive emissions in the arsenic plant were assessed during extensive on-site inspections during June 1983, and emission estimates were developed. Based on these assessments, it is estimated that approximately 15 Mg/yr (17 tons/yr) of fugitive arsenic emissions were released from operations of the arsenic trioxide plant at ASARCO-Tacoma in 1982. These estimates are based on visual observations of the sources and operations and on engineering judgment since fugitive emissions from these sources cannot be measured readily. Consequently, these estimates are subject to significant imprecision.

The EPA conducted further investigations to identify controls that could reduce fugitive arsenic emissions

from the arsenic plant as well as from other sources at the ASARCO-Tacoma smelter. The on-site inspection revealed that specific equipment modifications and housekeeping practices would reduce arsenic emissions. The list of potential control measures for fugitive arsenic sources was published in the December 16, 1983, **Federal Register** notice (48 FR 55880). The EPA reviewed the condidate control requirements considering public comments on the requirements. The final requirements are based on this review and on consideration of whether the controls are already installed or required by another regulation or agreement, and are likely to remain in operation or good repair. The final requirements are summarized in the Summary of Promulgated Standard section and are discussed in the Basis for Standard and Discussion of Comments—Control Technology sections of this preamble. Cost estimates were also developed for the fugitive arsenic emission controls.

Basis for Standard

A standard is being established for the arsenic trioxide and metallic arsenic production facilities at ASARCO-Tacoma because with current production processes and operations the arsenic plant is a significant contributor to ambient exposures to inorganic arsenic. Fugitive emissions from the arsenic plant are estimated currently to be about 6 Mg per year (7 tons per year), due to recent implementation of controls required by the Tripartite Agreement (i.e., the agreement among ASARCO, the union, and the State of Washington Department of Labor and Industries).

The standard that is being established today is based on available fugitive emissions control measures that can be readily applied. Section 112(e)(1) of the Act authorizes design, equipment, work practice, or operational standards when (a) the pollutant cannot be emitted through a conveyance designed and constructed to emit or capture the pollutant; or (b) the application of a measurement methodology is not practicable due to technological or economic limitations. The fugitive emissions that are being controlled through the arsenic plant standard would result from poor housekeeping practices and poor maintenance of process and emission control equipment. They cannot be emitted through a conveyance designed and constructed to emit or capture them, and their frequency and magnitude would vary to such an extent that measurement would not be practicable. Therefore, the format of the standard is one in which work practices and preventative maintenance control measures are required rather than a numerical emission limit. These control measures reflect application of general housekeeping procedures to the facility, and represent a level of control that can be required at this time in the absence of certainty on the future production process. Control measures beyond this minimum level of control are not being required because EPA is not in a position to identify the processes and applicable controls at this time. The standard was based on consideration of the need to minimize arsenic emissions through use of additional control measures, as well as on the feasibility and cost of these measures. The control measures considered include improved housekeeping practices and curtailment of emissions during malfunctions.

Equipment and Work Practices for Fugitive Emission Control

During the evaluation of additional controls, EPA conducted onsite inspections of processes and operations at the ASARCO-Tacoma facility. The on-site investigation identified several low-level arsenic emission sources where additional emission control is possible. Specifically, it was noted that overall housekeeping in the arsenic trioxide process area was poor with light to heavy accumulations of dust on all surfaces. Since this dust can be re-entrained and release emissions to the atmosphere, it was concluded that emission controls and improved housekeeping practices are needed. The contribution of these sources to total emissions from the facility cannot be accurately estimated. However, high ambient arsenic concentrations measured at the close-in ambient air monitors have been attributed by ASARCO, in part, to re-entrainment of dust from buildings and plant surfaces. Furthermore, in the public hearings on the proposed standards, testimony by representatives of ASARCO indicated that no formal operations and emissions logging procedure is used by ASARCO to assess the causes of high ambient arsenic concentrations.

Potential equipment, work practice, and recordkeeping requirements for sources of fugitive emissions were described in the December 16, 1983, **Federal Register** notice (48 FR 55880). Comments were received on the need for these additional controls and on their technical feasibility and costs. The comments were reviewed, and the equipment and work practice requirements which are feasible and likely to result in significant additional emission reduction were identified. This assessment of the control measures is presented in the Discussion of Comments section of this part of the preamble. From the consideration of public comments, it was concluded that none of the proposed equipment requirements should be imposed and that the proposed work practices should be slightly modified. Also identified were recordkeeping requirements that will be useful in determining probable causes of high ambient arsenic concentrations and steps that must be taken to prevent their reoccurrence. Combined, the identified control options for low-level fugitive emission sources are expected to reduce emissions from fugitive sources (and to maintain them) below current levels. The estimated combined annualized cost for inspection and maintenance requirements is about $265,000. In the Administrator's judgment, this cost is reasonable and affordable. Therefore, these requirements are included in the final standard.

Curtailment During Malfunctions

At the ASARCO-Tacoma smelter, ambient monitoring data for monitors at or near the plant boundaries have shown that arsenic concentrations dramatically increased when malfunctions and upsets occurred with the converters, the reverberatory furnace, the arsenic plant, or the liquid sulfur dioxide (SO_2) plant. Furthermore, on occasion these malfunctions have persisted for several days. The need for prompt attention to malfunctions was also demonstrated during EPA's emission test program conducted in September 1983. During emission testing of the arsenic plant baghouse, EPA personnel observed that the air slide conveying system, which transfers arsenic-laden dust back to the process, was blowing dust into the air. A large quantity of arsenic-laden dust (white dust) had accumulated under and around the air slide. No ASARCO personnel were in the immediate area, and based on EPA's understanding of the operations, none would have been in the area until the next day. (ASARCO personnel were located and the process was taken out of service until the air slide was repaired.)

The Administrator recognizes that malfunctions cannot be completely prevented. However, there are measures that can be taken to reduce emission rates significantly and to minimize the time during which increased emissions occur due to malfunctions. The most effective of these emission reduction measures is to shut down the affected operations when malfunctions occur. Therefore, in the December 16, 1983,

Federal Register notice (48 FR 55880) EPA proposed that a housekeeping plan be submitted that would include provisions for : (1) Regular inspection of all process, conveying, and emission control equipment; and (2) repair of malfunctioning or damaged equipment as soon as possible and shutdown of any operation involving material having an arsenic content greater than 2 percent until the equipment is repaired. Because the inclusion of a comprehensive list of all potential malfunctions in a regulation is impractical, the Administrator concluded that it would be more effective if the owner or operator of the source were to identify potential emission sources and the steps to be taken to minimize emissions (including shutdown) when they occur. Therefore, the final standard requires the owner or operator to submit a plan for EPA approval that outlines the steps that can and will be taken to curtail operations when equipment malfunctions or process upsets occur. The plan will include all operations, processes, and control equipment that handle material having an arsenic content greater than 2 percent. The program will describe the specific steps that will be taken to take out of operation or idle the affected operations, and the minimum time in which this can be accomplished. For the purpose of this standard, a malfunction is defined as any sudden failure of process or air pollution control equipment or of a process to operate normally which results in increased emissions of arsenic. Shutdown means the cessation of operation of the equipment or the addition of materials to process equipment.

The EPA would consider a failure of equipment or a process upset caused entirely or in part by poor maintenance, careless operation, or other preventable upset condition or equipment breakdown, to be the result of improper operation and maintenance. Improper operation and maintenance is a violation of the standard. The provisions pertaining to malfunctions which are discussed above do not excuse such violations.

Discussion of Comments

This section presents a summary of the specific comments pertaining to the arsenic plant at the ASARCO-Tacoma smelter. The comments were made in letters and in hearing testimony on the proposed standard for ASARCO-Tacoma's copper smelting operations. The comments are discussed by major topic area below.

Emission Estimates

Throughout the public comment period, comments were received concerning EPA's estimates of inorganic arsenic emissions from the ASARCO-Tacoma copper smelter and arsenic plant. Initially, the comments concerned the emission estimates presented in the July 20, 1983, **Federal Register** notice of proposed rulemaking and the BID for the proposed standard (EPA–450/3–83–009a). Several commenters, including ASARCO and PSAPCA, claimed that the emission rates presented by EPA significantly overstated the amount of arsenic being emitted. During the public comment period, EPA published several revised estimates of arsenic emission rates in 1982. Additional comments were received regarding these revised emission estimates. These commenters primarily focused on the emission estimates for the smelter's converter fugitive emissions and other low-level sources. The commenters still thought that EPA's emission estimates overstated the amount of arsenic being emitted from the ASARCO-Tacoma copper smelter and arsenic plant.

Since proposal, EPA has conducted emission tests of the arsenic plant fabric filter collector. New information on sources of low-level arsenic emissions was also obtained by EPA during extensive on-site visits to the ASARCO-Tacoma smelter. The EPA also reviewed the comments and evaluated the supporting information provided by the commenters. Based on the emission test results, observations, and the improved understanding of plant operations, EPA revised its emission estimates. These revised emission estimates were submitted for review to representatives of national and local environmental groups, PSAPCA, the USWA, and ASARCO who had attended a December 20, 1983, working level meeting. The emission estimates were further revised and EPA now estimates that arsenic emissions from the arsenic plant in 1982 were about 15 Mg (17 tons) and current emissions are about 6 Mg (7 tons) per year. The emission rate of fugitive sources in the arsenic plant will be less than 6 Mg (7 tons) per year when all control measures required by the standard are in place. The actual emission reduction cannot be estimated inasmuch as the required control measures are for unpredictable events of varying emission potential. The basis of the final emission estimates is presented in the BID for the promulgated standard (EPA–450/3–83–010b).

The EPA recognizes that the emission estimates retain some uncertainty, and some commenters may think the estimates continue to overstate arsenic emissions from the arsenic plant. The EPA believes that, although uncertainties persist, these estimates represent a good approximation of the actual emission rates. These emissions can be significantly reduced through improved housekeeping practices.

Control Technology

Low-level fugitive sources. Several commenters, including PSAPCA and Washington State Department of Ecology (DOE), recommended that EPA establish standards which require control of low-level fugitive arsenic emission sources. The Administrator agrees with the commenters and has established work practice requirements to reduce fugitive emissions. These final requirements were selected from those published in the December 16, 1983, **Federal Register** notice, considering public comments on their need, feasibility, and costs. The requirements are expressed as work practice and operational standards because emissions from these sources cannot be measured accurately.

General and specific comments on the proposed equipment, work practice, and operational requirements were received from ASARCO and the USWA, and are discussed in the following paragraphs. ASARCO commented that the listed control measures were developed without considering the likelihood of the material being emitted into the ambient air, their technical feasibility, cost, or the cost effectiveness of the measures in reducing any health risk. The proposed additional control measures were based on EPA's assessment of controls that could be used to reduce fugitive emissions from the arsenic plant and smelter. The likelihood of fugitive emissions being released to the atmosphere was considered by the EPA in developing the requirements. The generally open configuration of buildings and EPA observations show that emissions released inside buildings at the ASARCO-Tacoma facility are likely to be released to the atmosphere. In some cases, such emissions disperse directly to the air outside buildings. In other cases, the emissions may settle on supporting structures and surfaces within the buildings. These deposits of dust on buildings and plant surfaces can be re-entrained during periods with high winds. In fact, ASARCO has attributed some episodes of high ambient arsenic concentrations to re-entrainment of dust from plant and building surfaces. Similarly, EPA believes that spills of materials can also serve as a source of fugitive emissions through re-

entrainment of dust from building and plant surfaces. Thus, the additional control measures addressed all known sources or potential sources of fugitive emissions.

In developing the additional control measures, EPA also developed estimates of the costs. These control measures were briefly discussed in the meeting held December 20, 1983, and were placed in Docket Number A–80–40 for public inspection. (In response to comments, these estimates were revised and the revised estimates were also distributed to the meeting attendees for comment and to the public docket). The final control requirements are estimated to cost about $265,000 per year (increase in costs due to controls). These control measures were selected based on consideration of the need for the measure, the technical feasibility, and the estimated costs. The bases for the specific requirements are summarized below along with ASARCO's and the USWA's comments.

1. Equipment Standards—"Arsenic plant, raw dust conveyor system"—ASARCO's comments on the proposed requirement for a dust-tight conveying system for the arsenic plant were: (1) It is not possible to use an enclosed pneumatic conveying system to transfer wet dust (the dust is wetted because the Godfrey roasters cannot accept dry dust); and (2) the present covered belt conveyor system is best available technology. The USWA also commented that pneumatic conveying would require relocation of the zig-zag blender and recommended as an alternative that ASARCO be required to maintain the fullest possible enclosure of the zig-zag blender and belt transfer system and to ensure that leaks are promptly identified and repaired. The EPA considered these comments and believes that a pneumatic conveyor could be used as proposed by relocating the zig-zag blender closer to the Godfrey roasters. The EPA, however, also concluded that there were other more cost-effective ways of reducing emissions from transfer of raw dust from the arsenic plant storage bunkers to the Godfrey roasters. Specifically, the objective could be accomplished through improved housekeeping and maintenance of the existing system. Since EPA is establishing provisions that require a routine maintenance and repair program, the standard does not require installation of a dust-tight conveyor system in the arsenic plant.

"Godfrey roasters"—In response to the proposal to require installation and maintenance of a solid refractory arch on each Godfrey roaster, both ASARCO and USWA commented that all the arches have been installed. The final standard does not include this provision because the controls are in place and it is EPA's judgment that the controls are likely to remain in place.

"Calcine conveyor system"—In response to the proposal to require a pneumatic conveyor system for transfer of calcine from the Godfrey roaster water-cooled screw conceyors to the railcar loading station, ASARCO and USWA commented that this system has been installed and is operating. Thus, it is EPA's judgment that there is no need to require this system since it is in place and likely to remain in operation.

"Arsenic kitchen pulling area"—ASARCO commented that the enclosure around the kitchen pulling area that EPA proposed to require would be extremely large and expensive and is not justifiable. The USWA's industrial hygienist commented that the enclosure might exacerbate worker exposure to arsenic without any clear benefit to community air quality. The final standard does not require enclosure of the kitchen pulling areas because of the potential for significantly increased worker exposure in this area. This conclusion is based on a review of the conceptual design and calculations of expected arsenic concentrations within the enclosures where the kitchen pullers must work. Although workers in this area use full face respirators, this protection is not sufficient to fully isolate workers from exposure to arsenic because of the difficulties associated with the use of respirators. While it is theoretically possible to prevent increased exposure using respirators, it is more probable that employee exposures would significantly increase. Furthermore, EPA believes that substantial emission reductions can be achieved by improved housekeeping and maintenance of the arsenic plant without increasing worker exposures. Consequently, the regulation requires emissions from arsenic kitchen pulling to be minimized by cleaning up, wetting, or stabilizing dry, dusty, arsenic-bearing materials in the area.

2. Work Practices—Five general work practice objectives were listed in the December 16, 1983, **Federal Register** notice. Only ASARCO and the USWA commented on these proposed objectives for an inspection, maintenance, and housekeeping plan. The comments on each objective, and the objective, are discussed below.

"No accumulation of material having an arsenic content greater than 2 percent on any surface within the plant outside of a dust-tight enclosure"—ASARCO's comments on this objective of the management plan were: (1) This requirement can only be intepreted as meaning the entire plant would have to be placed within an enclosure; and (2) the costs of such an enclosure would be astronomical. The USWA commented that dry, dusty materials with arsenic concentrations well below 2 percent may contribute significantly to fugitive emissions from the plant, while damp materials with higher arsenic content would not contribute significantly. The USWA recommended that the regulation require clean-up or stabilization of dry materials containing more than 0.2 percent arsenic.

The rationale for requiring no accumulation and clean-up of arsenic-containing materials is that, as previously discussed, re-entrainment of part or all of the material is possible and re-entrained material is likely to be released to the atmosphere. The intent of the requirement was not, as suggested by ASARCO, to require enclosure of the entire plant, which is obviously not practicable. Instead, the intent was to focus attention on control of potentially significant sources of fugitive arsenic emissions from sources such as arsenic kitchen pulling or handling of baghouse dust and to exclude nonarsenic-bearing materials. The EPA considers the USWA's comment that the requirement should be limited to dry, dusty materials to be valid. Consequently, this objective has been reworded in the general work practices standard to require cleaning up or wetting of dry, dusty materials. The objective has not been revised as suggested by USWA to include materials with more than 0.2 percent arsenic because limiting the requirement to materials with more than 2 percent arsenic essentially requires cleanup or control of all sources in the arsenic plant.

"Immediate cleanup of any spilled material having an arsenic content greater than 2 percent"—ASARCO's comments on this objective were: (1) There is a housekeeping program in place as part of the OSHA/WISHA arsenic compliance requirements; (2) any clean-up requirements should be directed toward specific sources and materials and should be handled by a regulatory agency compliance requirement; and (3) the objective does not consider whether the material is likely to become airborne. The USWA comments on this proposed requirement were the same as its comments on the preceding requirement. The EPA reviewed ASARCO's housekeeping plan submitted to the Washington State Department of Labor and Industries and

found that its scope was much narrower than intended by EPA's proposal. Thus, at present the existing housekeeping program cannot be considered an adequate substitute for the proposed objective.

The EPA believes this objective of the general work practice plan should be included in the standard to ensure that prompt attention is given to clean-up or control of spilled materials containing greater than 2 percent arsenic. It would not be practicable to identify every potential source in the regulation because of the large number of sources and materials processed at the facility. Unless this requirement is part of the regulation, EPA believes there would be no means of ensuring the attendant emission control. Therefore, the requirement has been included in the regulation.

"Regular scheduled maintenance of all smelter process, conveying, and emission control equipment to minimize equipment malfunctions"—Both ASARCO and USWA commented that this proposed objective is currently required by the Tripartite Agreement, and USWA further commented that it should be included in the final standard. This provision is being required to establish more explicit requirements for the arsenic plant than does the Tripartite Agreement. The standard includes this as a necessary part of an approvable housekeeping, inspection, and maintenance plan.

"Regular inspection to ensure equipment is operating properly"—ASARCO commented that there is an inspection procedure in place, and it is unreasonable to require the proposed inspection routine and documentation. In contrast, the USWA agreed with the proposed objective and recommended that the inspector document general housekeeping in each area to ensure plant surfaces are kept free of dry, dusty materials. Both ASARCO and USWA commented that it is unnecessary to require the inspector to follow a prescribed route. The EPA believes that the proposed regular inspection objective is a necessary element of the management plan to miminize fugitive and excess emissions and thus should be included in the standard. The proposed requirement of a prescribed route, however, has been deleted as it is unnecessary as long as all equipment and areas are inspected. The inspection and documentation of equipment status will ensure that malfunctioning equipment is quickly detected and will create a record that can be used to evaluate possible causes of higher than normal ambient arsenic concentrations. The EPA believes that regular inspection and documentation is necessary because ASARCO's correspondence with PSAPCA and EPA suggests that equipment malfunctions and upsets and other causes of higher than normal emissions are not systematically documented. Further, during the public hearing in Tacoma, ASARCO representatives confirmed that they do not have procedures which document all observed emissions and their causes. The EPA believes that such documentation is necessary to objectively pursue an effective emission control program. As suggested by the USWA, the inspection procedure has been expanded to include observation and documentation of housekeeping practices. The EPA believes that the inspection procedure and its required documentation will increase awareness of and emphasis on emission control.

"Repair of malfunctioning or damaged equipment"—ASARCO commented that they oppose the proposed requirements because the urgency of the repair is not related to the quantity of emissions to the air or impact on air quality. ASARCO also considered the proposal to be unreasonable because it would remove from ASARCO the discretion and authority to determine and take appropriate action. The USWA commented that it is not always practicable or necessary to shut down operations involving releases of material with more than 2 percent arsenic. The EPA considered these comments and consequently revised the proposed objective to require the company to submit a plan, subject to the approval of the Administrator, describing the actions that will be taken to curtail operations when process upsets and malfunctions of process, emission control, or material handling equipment occur that will result in increased emissions of arsenic. This plan will describe the time and actions required to curtail increased emissions due to malfunctions. The plan will also describe any technical limitations on curtailments. The EPA believes that this approach will allow sufficient flexibility to consider technical limitations and to consider whether specific individual malfunctions would increase emissions of inorganic arsenic to the atmosphere.

Arsenic trioxide production techniques. Both PSAPCA and NRDC recommended that EPA consider alternative arsenic trioxide production processes in the evaluation of best available controls for the ASARCO-Tacoma facility. These commenters recommended replacing the existing hot roasting process with a hydrometallurgical process as the best approach to reducing low-level arsenic emissions. Another commenter (the USWA) recommended that EPA require ASARCO to research alternative technologies for the production of arsenic trioxide and metallic arsenic.

The EPA has examined the status and applicability of hydrometallurgical processes to materials processed in the ASARCO-Tacoma arsenic production facility. The EPA is monitoring the development of hydrometallurgical processes and is aware of a number of processes that are being developed. Since flue dusts used in the ASARCO-Tacoma arsenic plant vary considerably in composition and contain impurities not found at other smelters, there is no known established process that can be readily applied at Tacoma. At this time, ASARCO is researching several processes for extracting arsenic from various flue dusts and is operating a pilot plant to evaluate further the feasibility of several processes recommended by the research department. Pilot plant operations began in September 1984.

The EPA is not requiring ASARCO to research alternative technologies for the production of arsenic trioxide and metallic arsenic for two reasons. First, the Tripartite Agreement among ASARCO, OSHA, and USWA already requires ASARCO to monitor and evaluate the development of alternative technologies for the production of arsenic trioxide and matallic arsenic. As previously indicated, EPA does not believe it is necessary to establish redundant standards when the measures required would be implemented even in the absence of EPA standards. Second, such a new requirement would have no impact because ASARCO is committed to, and is, in fact, already conducting pilot plant tests. Today's regulation does, however, require ASARCO to report to the Administrator the findings of studies conducted on the feasibility of alternative processes for producing arsenic trioxide. The EPA plans to continue to monitor the development of hydrometallurgical processes and the process changes to the arsenic trioxide plant, and to revise the regulation when appropriate.

Compliance Provisions

The Washington State DOE recommended that requirements for good operation and maintenance for process controls be included in the final regulation. The EPA agrees with DOE and, as described in the Summary of Promulgated Standard section of this preamble, the regulation includes

provisions that require good operation and maintenance of process, conveying, and emission control equipment associated with the arsenic plant.

Reporting and Recordkeeping

The Washington State DOE recommended that the standard include recordkeeping and reporting requirements for malfunctions, upsets, and spills, and operation and maintenance provisions for control equipment. The Administrator considered this comment (and comments made at the public hearing that additional controls were needed) and concluded that additional inspection, maintenance, and recordkeeping requirements would be helpful in achieving better control of arsenic emissions. Consequently, the final standard requires regular inspection and maintenance of process, conveying, and emission control equipment as well as reporting of all malfunctions and process upsets that result in increased arsenic emissions.

ASARCO commented that it considers the monitoring, recordkeeping, and reporting requirements to be extremely burdensome and far beyond what is necessary, considering that emissions are negligible. The EPA believes that recordkeeping and reporting requirements are necessary to assist the Agency in identifying emission sources and to assist in enforcing the standard after the initial compliance demonstration. The final recordkeeping and reporting requirements will require on the average about 800 labor-hours per year over the first 3 years after the effective date of the standard. These requirements have been imposed because ambient arsenic concentrations around the facility are high, and fugitive emissions from the various operations in the facility, and in particular the arsenic plant, contribute significantly to ambient arsenic concentrations.

Ambient Limits

A number of commenters, local governmental agencies (PSAPCA and Washington State Department of Social and Health Services (DSHS)), and environmental groups, recommended that EPA establish an ambient arsenic standard which the ASARCO-Tacoma facility must achieve. It was also suggested that the standard should specify the monitoring and analytical techniques to be used. The PSAPCA specifically recommended that EPA establish 24-hour and annual average arsenic "action levels" to enforce implementation of a fugitive emission control program at the ASARCO-Tacoma facility. Conversely, other commenters argued that EPA should not establish an ambient standard for inorganic arsenic. The Washington DOE said that while it intends to establish 24-hour and annual average community exposure standard to limit inorganic arsenic emissions, it did not recommend that EPA adopt an ambient, or community exposure, standard. The DOE believes there is a need for flexibility in implementing such a standard applied to the ASARCO-Tacoma facility. Hence, in April 1984 the DOE adopted an interim ambient standard and plan to adopt permanent standards after evaluation and study of the causes of high ambient arsenic concentrations in the Tacoma area. The interim standard limits maximum 24-hour ambient concentrations of arsenic to 2.0 $\mu g/m^3$ and maximum annual average ambient concentrations of arsenic to 0.3 $\mu g/m^3$. The USWA and NRDC commented that an ambient standard for carcinogens is inappropriate and is not authorized under the Act. These commenters argued that an ambient standard is inappropriate because no safe level can be established for zero-threshold pollutants. These commenters did, however, believe that an ambient monitoring requirement and an "action level" used as an adjunct to enforcement would be useful and is authorized under the Act. The USWA specifically recommended: (1) That the action level should be achievable when all controls are working properly and should be revised periodically and (2) that exceedances of the action level should trigger an investigation by the company and a report to EPA. The USWA also recommended that the ambient monitoring requirement include provisions which require ASARCO to study and estimate regularly fugitive emissions from all sources in the plant, and to prepare and implement a management plan for control of fugitive emissions.

ASARCO commented on the legal authority and recommendations for an ambient arsenic standard or community exposure level. ASARCO commented that the language and legislative history of the Clean Air Act shows that section 112 does not empower EPA to set an enforceable ambient standard. ASARCO maintained that the clear thrust of section 112 is that EPA is responsible for adopting standards that limit continuously the amount of emissions of hazardous air pollutants from individual sources. ASARCO argued that an ambient standard would not be useful or appropriate because: (1) Ambient arsenic concentrations are presently and will continue to be monitored; (2) ambient concentrations around a source vary, depending on factors other them emissions, including meterological conditions and local terrain; (3) fugitive emissions are already will-controlled; and (4) there are no medical criteria that can be used to establish the level and averaging period of a standard. A further argument against an ambient standard presented by ASARCO was that an ambient standard would not be an effective means of reducing arsenic emissions. ASARCO commented that an ambient standard would have to be achieved either by emission controls or by production curtailments, and that EPA would have to identify sources of emissions causing high ambient arsenic levels and determine the controls required to attain the standard ASARCO pointed out that, in the case of a 24-hour standard, it would be difficult to determine what controls should be required because it is not possible to determine retroactively the causes of high ambient arsenic values. It was also argued that maintaining an ambient arsenic standard by intermittent production curtailment was not feasible. Curtailment is not a feasible approach to arsenic control because: (1) There is currently no real-time monitoring system for arsenic; (2) it is not practicable because of lack of knowledge about which sources should be curtailed; and (3) arsenic emission sources require lengthy shutdown periods before they cease emitting arsenic.

Since an enforceable ambient standard is not being established in the standard being promulgated today, ASARCO's comment (that section 112 of the Clean Air Act does not give EPA the authority to set enforceable ambient standards) is not pertinent to this rulemaking. The EPA agrees that an ambient standard cannot be established for inorganic arsenic based solely on health effects or risk estimates. The EPA does believe, however, that an enforceable ambient limit, which is an indicator of proper operation and maintenance of emission control systems and is developed considering all relevant factors, is consistent with the goals of Section 112 and may consider establishing a limit at a later date. This limit would serve as a direct measure of the degree to which fugitive arsenic emission sources at the arsenic production facilities are being controlled. The EPA intends to review ambient arsenic monitoring data in the future to determine if additional control measures are needed, and the standard requires quarterly reporting of ambient

arsenic concentration monitoring data to facilitate this review. Among the measures that would be considered would be an enforceable boundary limit providing sufficient information and data are available to establish a limit. The enforceable boundary limit would be used to evaluate the effectiveness of required control measures and would not impose any additional emission control requirements. Thus, the enforceable boundary limit would not require production curtailments to achieve compliance with the limit. Hence, ASARCO's comments regarding the utility of an ambient standard are not applicable to the concept of the enforceable boundary limit.

Depending on the steps which ASARCO takes to reduce emissions in future operations of the arsenic plant, EPA plans to determine the need for additional control measures and the need for an enforceable boundary limit after the effects of the required control actions are assessed. This assessment will involve comparison of ambient levels of arsenic measured near the plant with ASARCO's records of operation at the arsenic plant. The EPA believes that this information will help to identify operating practices that cause high ambient concentrations, and the agree to which additional controls might reduce ambient arsenic concentration levels. In particular, exceedances of the DOE standard would be investigated to determine the cause and to determine possible control measures. The review may also consider the need for requiring periodic review of emissions and control measures to ensure the continued effectiveness of the housekeeping plan.

Impacts of Reporting and Recordkeeping Requirements

The EPA believes that the required reporting and recordkeeping requirements are necessary to assist the Agency in: (1) Identifying sources; (2) determining initial compliance; and (3) enforcing the standards.

The Paperwork Reduction Act (PRA) of 1980 (Pub. L. 96–511) requires that the Office of Management and Budget (OMB) approve reporting and recordkeeping requirements that qualify as an "information collection request" (ICR). To accommodate OMB review, EPA uses 3-year periods in its impact analysis procedures for estimating the labor-hour burden of reporting and recordkeeping requirements.

The average annual burden on owners and operators of arsenic trioxide and metallic arsenic production facilities to comply with the reporting and recordkeeping requirements of the final standard over the first 3 years after the effective date is estimated to be about 800 labor-hours.

VI. Negative Determinations

On July 20, 1983, EPA proposed not to establish standards limiting emissions of inorganic arsenic for six categories of sources. These sources were primary lead smelters, secondary lead smelters, primary zinc smelters, zinc oxide plants, cotton gins, and arsenic chemical manufacturing plants. The public comment period on these negative determinations ended on January 31, 1984. This part of the preamble presents the basis of the Administrator's decision to reaffirm the decision not to establish emission limits for these sources and responds to comments on the preposed action.

Summary of Decisions

The EPA identified the following six inorganic arsenic source categories, but concluded that standards were not warranted at this time: Primary lead smelters, primary zinc smelters, zinc oxide plants, arsenic chemical plants, secondary lead smelters, and cotton gins. The EPA has not developed standards for these source categories for the following reasons:

1. As a result of the existing level of control for these six source categories, maximum lifetime risk and annual incidence for each source category are generally small.

2. Requiring further controls under section 112 beyond OSHA and SIP requirements for either individual sources or for the six categories would not result in a significant reduction in maximum lifetime risk or annual incidence.

3. The EPA analyses indicate that severe economic impacts, including plant closure, could result if further control were required. The Agency does not believe that plant closure is a reasonable alternative.

The EPA believes that the cost of any additional controls that may be possible appear to far exceed any small incremental health benefit which might result. For the above reasons, the Agency believes that Federal regulation under section 112 of these six categories of sources of arsenic emissions is not currently warranted.

Significant Changes Since Proposal

No changes have been made in the Agency's decision not to regulate primary lead smelters, secondary lead smelters, primary zinc smelters, zinc oxide plants, cotton gins, and arsenic chemical manufacturing plants.

Additional Analyses

As a result of public comments, EPA conducted additional analyses to ensure that the decision whether to regulate primary lead smelters, primary zinc smelters, zinc oxide plants, arsenic chemical manufacturing plants, secondary lead smelters, and cotton gins is based on the most complete and accurate information available. Additional information on arsenic emissions and control technology was collected and analyzed for primary zinc smelters and secondary lead smelters. For primary zinc smelters, plant visits were conducted to verify the emission estimates and use of emission control equipment. During the plant visits, feedstock samples and process information were obtained to develop a material balance for estimating emissions. For secondary lead smelters, additional information was collected concerning the secondary lead industry. The current level of control practiced throughout the secondary lead industry was assessed in-depth. New nationwide arsenic emission estimates were made for secondary lead process sources and process and area fugitive sources based on EPA source testing. Risk analyses were performed based on these revised secondary lead emission estimates. These additional analyses undertaken for primary zinc smelters and secondary lead smelters are described in the responses to public comments.

Risk estimates, both maximum lifetime risk and annual incidence, for all six categories were revised by increasing the distance modeled from 20 km to 50 km (12 to 31 miles) from the source, by incorporating 1980 population data, and by more exactly locating the coordinates of some plant sites.

Basis for Decisions

This section presents the application of EPA's risk management approach in the review of the decision not to develop standards for the six source categories. The factors considered in the review were the risks posed by the sources, both maximum lifetime risk and annual incidence; the emission and risk reductions achievable through application of additional emission controls; and the costs and economic impacts of these control measures. The assessment of the risks and control options is summarized below.

Although the Agency did not perform site-specific air dispersion analysis for any of the six source categories which the Administrator has decided not to regulate under section 112, EPA has, where possible, made comparisons

between the predicted and measured values. Generally, ambient data were not available in sufficient quantity to allow meaningful comparisons, but when obtained, the measured ambient values tended to be slightly higher than predicted by HEM for these source categories. This result is expected and reasonable since the ambient monitors would be affected by naturally-occurring arsenic in the soil and by other local arsenic sources that were not considered in EPA air dispersion analysis. The risk estimates ae given in Table VI–1.

More detailed information regarding the risk assessments for the source categories that remain unregulated under Section 112 may be found in the background information document (EPA–450/5–85–002). An explanation of EPA's risk management approach is found in the Overview—Basis for Promulgated Standards section of this preamble.

1. Secondary lead smelters. Maximum lifetime risk and annual incidence are small for most plants in this source category under the existing level of control. The highest annual incidence which occurs at one secondary lead smelter is 0.14, associated with a large exposed population (8.86 million within a 50 km radius). The EPA expects that OSHA and SIP requirements will lead to additional control to be implemented at this smelter as well as at many others. Fugutive sources are now largely controlled so that improvement, if possible, would be necessarily site-specific, and not practical or reasonable in a national standard. Due to the small maximum lifetime risk the probable inability to achieve further significant reductions in emissions and incidence, the potential negative societal and economic impacts that would result from additional control, and the difficulty in developing a uniform national standard, EPA has decided that regulation of secondary lead smelters under Section 112 is not currently warranted.

2. Cotton gins. For cotton gins, EPA developed "model" plants located in "model" locations for use in estimating maximum lifetime risks. However, with this approach, which was used since detailed location data were not available for all plants, the Agency cannot reasonably calculate aggregate or total risks to those living within 50 km (31 miles) of the gins. To look more closely at this category, EPA conducted an ambient monitoring study around two gins in the Texas area. When comparing the measured arsenic values to the predicted concentrations from the appropriate model gin exposure analysis, EPA found that the predicted values were reasonably close to concentrations measured very near the gins. The monitoring study data also showed that the arsenic concentrations fell off very rapidly with distance from the gins. This result suggests that people living at some distance from the gins are not being significantly exposed to the gins' emissions. Such a result, coupled with the observation that many gins are in rural areas, supports the Agency's conclusion that the aggregate risks for this source category are small.

The estimated maximum lifetime risks associated with the current level of process emission control from cotton gins is also small. There is not sufficient information available on the effectiveness of fugitive emission control techniques and such techniques have not been demonstrated to be applicable to all operational variabilities of cotton gins, leading the Agency to conclude that additional fugitive emission control is not reasonable. Taking these factors into consideration, the Agency has concluded: (1) That the existing level of control is acceptable because of the potential economic and societal consequences of gin closure and (2) that regulation of cotton gins under section 112 is not currently warranted.

3. Zinc oxide plants. Annual incidence estimates are small for both existing zinc oxide plants under current levels of control.

TABLE VI–1.—RISK ESTIMATES FOR SOURCE CATEGORIES FOR WHICH THE AGENCY IS NOT PROPOSING STANDARDS

Source category	Number of plants	Maximum individual risks	Aggregate risks (cases/yr)
Secondary lead smelters	35	4×10^{-4}	0.39
Cotton gins	~300	5×10^{-4}	
Primary lead smelters	5	20×10^{-4}	0.07
Primary zinc smelters	5	0.07×10^{-4}	0.004
Zinc oxide plants	2	10×10^{-4}	0.08
Arsenic chemical plants	8	2×10^{-4}	0.004

The one plant where maximum lifetime risk is highest has process and fugitive controls in place. Existing controls and those planned for the near future to comply with OSHA and SIP regulations will reduce emissions and associated maximum lifetime risk from both plants. The EPA cannot identify any control requirements beyond those established by OSHA that would not result in closure of the plant associated with the highest maximum lifetime risk. Thus, EPA has decided that regulation of zinc oxide plants under section 112 is not warranted at this time.

4. Primary lead smelters. The annual incidence is small for all of the existing smelters under current levels of control. The highest predicted maximum lifetime risk which occurs at one smelter is 2×10^{-3}. Controls implemented at this plant as a result of recent tripartite agreements among OSHA, smelter management, and labor have already resulted in reduced ambient arsenic levels at this plant. Moreover, EPA has not identified any controls beyond those necessary to comply with OSHA and lead SIP requirements that could further reduce arsenic emissions to a significant degree. Thus, the Agency has concluded that section 112 regulation is not warranted at this time.

5. Primary zinc smelters. Annual incidence and maximum lifetime risk estimates are small for this source category under existing levels of control. No technology has been demonstrated that can reduce emissions further. Thus, the Agency has concluded that regulation under section 112 is not currently warranted.

6. Arsenic chemical manufacturing plants. Annual incidence and maximum lifetime risk estimates are small for this source category under existing levels of control. There are no demonstrated control techniques that would result in further emission reductions. Thus, the Agency has concluded that regulation of this soruce category under section 112 is not currently warranted.

Discussion of Comments

Comments on the decision not to propose standards for these source categories were solicited in the July 20, 1983, **Federal Register** (48 FR 33112). Eleven letters were received pertaining to these source categories. One of the parties who testified at the public hearing alluded to these source categories, and later submitted more detailed written comments. Comments concerned general topics that pertained to all six source categories as well as to particular source categories. Comments and Agency responses are presented here in the following order: General comments, secondary lead smelters, cotton gins, zinc oxide plants, primary lead smelters, primary zinc smelters, and arsenic chemical manufacturing plants. The docket reference is indicated in parentheses in each comment.

General Comments

The Attorney General's Office of the State of New York (A–83–09/IV–D–9, A–83–10/IV–D–12, A–83–11/IV–D–9, A–83–23/IV–D–9) submitted a list of companies located in New York and New Jersey, some of which are in the

source categories EPA has identified as potential sources of inorganic arsenic emissions. The commenter claimed that EPA has neither identified these companies as inorganic arsenic sources, nor demonstrated that they do not emit inorganic arsenic.

The list of companies provided was reviewed by EPA. The list apparently involves firms which fall under the same industrial source classification as the sources which emit arsenic. However, in general, the list contained companies that did not fall into the source categories identified as potential arsenic emission sources. A good example of this misclassification was observed when reviewing the secondary lead smelter category. Of the 27 companies included on the secondary lead smelter list submitted by the State of New York, only two were included on EPA's list of secondary lead smelters. These companies (Federated Metals, Newark, NJ, and Roth Brothers Smelting, E. Syracuse, NY) are also the only two companies recognized as secondary lead smelters by the Secondary Lead Smelting Association. Upon receipt of the listing, EPA initiated an additional data gathering effort to obtain information pertaining to the nature of business conducted by the remaining 25 companies. After the investigation, EPA identified the majority of these companies as remelters (plants that operate a melting pot) and/or companies that produce special alloys. The majority of these companies produced zinc, aluminum, copper, or other nonlead alloys. Also included on the list of potential secondary lead smelters was: (1) A company that recovers precious metals (gold, silver, and platinum) from scrap jewelry, (2) a fabrication and construction company that uses lead fabricated products in various construction applications, (3) a company that produces metal decoration for churches, (4) a company that weaves industrial wire cloth for reinforcing washing machine hoses, and (5) a paper company. Six of the companies listed by the commenter were either permanently closed or had no current telephone listing.

The EPA finds no reason to believe that any of these companies use significant quantities of arsenic or arsenic bearing materials in processes that would release arsenic to the atmosphere. The EPA, therefore, concludes that all significant sources of inorganic arsenic emissions have previously been identified, and the list provided by the State of New York does not identify any additional companies in any of the subject source categories.

The State of New York Attorney General's Office (A–83–09/IV–D–9, A–83–10/IV–D–12, A–83–10/IV–D–9, A–83–23/IV–D–9) also commented that fugitive emission sources and the status of their control had not been statisfactorily characterized and that this information is needed to support EPA's claim that fugitive sources are well controlled. The commenter stated that control techiques such as secondary hood systems, dust control, building enclosures, and fines agglomeration may be applicable to many types of sources of fugitive arsenic emissions and should be applied wherever those controls would reduce fugitive arsenic emissions.

The EPA attempted to characterize controls used on the major fugitive sources from all source categories (Preliminary Study of Sources of Inorganic Arsenic [EPA–450/5–82–005]). Plants were contacted for information on fugitive emissions and controls. As described in the preliminary study, the magnitude of fugitive arsenic emissions was estimated quantitatively or qualitatively for all source categories. The quantity of fugitive emissions from primary lead smelter was based on previously conducted fugitive arsenic and lead emission tests at two primary lead smelter. Fugitive arsenic emissions from secondary lead smelter were estimated based on measured lead emissions and estimated lead to arsenic ratios. The OSHA arsenic measurements provide an indication of the quantity of fugitive arsenic emitted from arsenic chemical manufacturing, primary zinc, and zinc oxide plants. Based on workplace arsenic levels reported, EPA concluded that fugitive emissions from these sources were well controlled.

Fugitive emissions are difficult to measure and limited data are available, so there is uncertainty in EPA's characterization of both area and process fugitive emissions. Where quantitative control efficiency data were not available, EPA qualitatively analyzed fugitive capture and control efficiency based on engineering design. The preliminary source study did identify secondary lead smelters as a category warranting further study. Fugitive emissions from secondary lead smelters were investigated further after the July 20, 1983, proposal, and the results are summarized in Docket A–83–09, item IV–A–4.

The EPA agrees that the control technologies mentioned by the commenter have been effective in achieving reductions in fugitive emissions in various applications. However, fugitive arsenic emission controls to meet OSHA requirements are currently in operation at all plants. The types of existing fugitive control systems vary from plant to plant because of differences in the physical configurations of plant equipment and because of variations in production processes and emission points among plants in the various source categories.

The EPA investigated the effect of existing regulations on reducing fugitive arsenic emissions from all source categories (A–83–08/II–A–5). Applicable regulations include OSHA lead and inorganic arsenic standards; lead, SO_2, and particulate National Ambient Air Quality Standards (NAAQS); and New Source Performance Standards (NSPS) for some source categories. The conclusion of this investigation was that many sources of fugitive emissions within all source categories are currently well controlled, and industry compliance with existing regulations will result in the application of effective control to all remaining fugitive emission sources. After this characterization of fugitive emissions and controls, EPA concluded that the risks associated with fugitive arsenic emissions from primary and secondary lead smelters, primary zinc smelters, zinc oxide plants, cotton gins, and arsenic chemical plants are generally small; and additional control at the Federal level through a Section 112 standard would not result in significant reduction of inorganic arsenic emissions and associated risks.

The Attorney General's Office of the State of New York (A–83–09/IV–D–9, A–83–10/IV–D–12, A–83–11/IV–D–9, A–83–23/IV–D–9) thought that EPA has not adequately taken into consideration the physical properties of the arsenic trioxide that affect efficiency achieved by control devices. This commenter felt that EPA did not adequately consider emission controls for vapor phase arsenic. The commenter noted that arsenic trioxide is appreciably volatile at 100 °C (212 °F). Since most industrial processes involve temperatures well in excess of 100 °C (212 °F), they concluded that any arsenic in a feed material will be found in the vapor phase.

The State of New York also said that when gas streams saturated with arsenic trioxide vapor are cooled, condensation does not occur as expected. Depending on the quantity of arsenic present in the feed material, they felt that process vapors may not be saturated with arsenic trioxide. The commenter stated that when the vapor is not saturated with arsenic trioxide, substantially lowering the temperature will not force arsenic trioxide to condense. Therefore, since arsenic

trioxide remains in the gaseous phase, they concluded that particulate control methods dependent on arsenic trioxide condensation will be ineffective.

The commenter presents two conflicting ideas. The first is that EPA has not proposed controls that remove vapor phase arsenic in hot (>100 °C) offgas streams (removal by condensation). The second idea presented and conclusion drawn by the commenter is that control of gaseous phase arsenic trioxide by condensation is ineffective unless the vapor is saturated.

The commenter also stated that because of the high temperature required for industrial processes (100 °C), any arsenic in the feed material will be found in the vapor phase. In contrast, EPA found, based on samples collected by the Agency and information provided by plants in each of the subject source categories, some arsenic is typically found in the product metal, slag, matte, and flue dust.

Process arsenic emissions from zinc oxide plants, arsenic chemical manufacturing, primary lead and zinc smelters, and secondary lead smelters are controlled by either wet scrubbers, contact acid plants, or fabric filters. Because of the presence of vapor phase arsenic in these offgas streams, EPA investigated the feasibility and effectiveness of low temperature controls for all "hot" process sources. Preliminary calculations based upon the limited data available at the time of the initial survey showed that additional cooling of the offgas streams from zinc oxide plants, secondary lead smelters, and glass manufacturing plants could potentially result in additional arsenic trioxide condensation. These preliminary calculations demonstrated that offgas cooling could potentially reduce arsenic emissions by condensing the vapor phase arsenic and capturing it as particulate arsenic.

Following the preliminary calculations, emission tests were performed at glass manufacturing plants and secondary lead smelters (see "Inorganic Arsenic Emissions from Glass Manufacturing Plants—Backgound Information for Promulgated Standards," EPA 450/3–83–011b, and "Secondary Lead Smelter Tests of Area Source Fugitive Emissions for Arsenic, Cadmium, and Lead; Chloride Metals, Tampa, Florida," EMB 84–SLD–3, A–83–09/IV–A–4)

Results from the process emission tests at a secondary lead smelter demonstrated that arsenic entering the process baghouse was primarily associated with particulate matter at temperatures of 175 ° to 200 °C (350 to 390 °F) (A–83–09/IV–A–2). Simultaneous inlet-outlet measurements conducted on the process baghouse indicated an average total arsenic removal efficiency of 98.86 percent. Based on arsenic trioxide saturation theory, the measured arsenic concentrations entering the baghouse correspond to less than one percent of the concentration required for vapor saturation. Arsenic emissions from glass manufacturing have also been shown to be predominantly in the solid phase. A series of tests on glass furnace offgas demonstrate that for most types of arsenic containing glasses, more than 90 percent of the arsenic exists in the particulate phase at typical stack gas temperatures of 288 °C (550 °F) (A–83–08/II–A–5).

These data apparently contradict theoretical considerations (based upon arsenic being present as arsenic trioxide), which predict all of the arsenic to exist in the vapor phase at the measured temperatures. However, theoretical considerations are based only on arsenic in the form of arsenic trioxide and do not consider the presence of other chemical species (chlorides, etc.) in the stack gas or adsorptive interactions with particulate matter. The presence of other components changes the way arsenic would react alone in the furnace offgas streams.

Therefore, EPA concludes that arsenic emissions from some processes are effectively controlled by particulate control devices even at elevated temperatures. Despite theoretical predictions, exhaust stream measurements demonstrate that arsenic can be controlled from some processes by particulate capture and that high removal efficiencies can be achieved even at temperatures exceeding 260 °C (500 °F). In addition, the data available to EPA do not conclusively demonstrate a correlation between temperature and arsenic in vapor or solid phase and, thus, cannot serve as the basis for any requirement to cool gas streams.

The Attorney General's Office of the State of New York (A–83–09/IV–D–9, A–83–10/IV–D–12, A–83–11/IV–D–9, A–83–23/IV–D–9) commented that EPA has not adequately dealt with the special control problems associated with arsenic particulate matter. They stated that there are much higher concentrations of arsenic in small particle size fractions (1–2 micrometers) than in larger size fractions. They noted that the concentration of arsenic in particulate matter with a diameter greater than 11.3 micrometers is 680 ppm and the concentration in the 1–2 micrometers range is 1,700 ppm. The commenter concluded that arsenic controls must be efficient at collection of the fine particulate fraction.

The State of New York said that even though fabric filters can achieve removal efficiencies of 90 to 99 percent for particulate matter, EPA cannot assume that this represents 99 percent removal of arsenic. They noted that: (1) Arsenic occurs preferentially in the fine particulate fraction that escapes collection, and (2) fabric filters will not remove arsenic in the vapor phase. New York State contended that if fabric fileters are operated properly, particulate emissions can be reduced to 23 mg/dscm (0.01 gr/dscf) and a concurrent fine particulate (less than 2 micrometers) reduction to 18 mg/dscm (0.008 gr/dscf). They note that if the equipment is well maintained, one can expect arsenic control of approximately 90 percent with the use of state-of-the-art fabric filters. The commenter felt that such filters must be required as a minimum control device, and that design and maintenance standards should also be specified.

Thus, the State of New York concluded that among technologies for particulate control, fabric filters are the most effective. They also concluded that fabric filters are the only acceptable method of arsenic control and that arsenic control with wet scrubbing systems is ineffective and expensive. However, this commenter noted that EPA has not specified fabric filters as BAT for all arsenic sources.

Two conflicting viewpoints are presented by the commenter. The logic behind recommending fabric filters as BAT for all arsenic sources is inconsistent with the commenter's earlier statements concerning the physical properties of arsenic emissions (i.e., vapor phase arsenic and size fraction of the arsenic-bound particulate). However, previous statements by the same commenter indicated that arsenic control based on condensation "is ineffective," and arsenic bound particulate occurs in the fine particulate fraction "which escape collection."

The EPA agrees that for a control device to be effective in reducing arsenic emissions it must be effective in collecting fine particulate matter. Control devices currently used in these source categories are effective in collecting fine particulate matter.

The EPA has not assumed that since fabric filters are capable of achieving 99 percent collection of particulates, they are also capable of achieving 99 percent collection of arsenic. Therefore, EPA agrees with the commenter that such an assumption cannot be made. However,

EPA believes fabric filters to be an effective fine particulate control technique with efficiencies in the 90 percent range for arsenic bound particulate less than 10 micrometers. The EPA disagrees with the commenter regarding the effectiveness of wet scrubbing systems. Wet scrubbing systems use a liquid stream to recover small particles from a gas stream. Wet scrubbing systems also serve to cool the offgases and promote some degree of condensation. In one test conducted on a wet scrubber which followed a fabric filter that achieved about 99 percent control, approximately a 60 percent reduction in remaining arsenic was noted. The commenters did not provide any information to support the claim that wet scrubbers are ineffective.

It is unclear what the commenter means by the statement that EPA has not "specified" fabric filters as BAT for all inorganic arsenic sources. The EPA has, however, concluded that effective control is in place or will be in place in the near future for the subject source categories due to lead SIP's and OSHA requirements; and the level of control that would have been required by a NESHAP is no more stringent than currently exists and thus would not have resulted in any additional inorganic arsenic emission reduction.

Three commenters mentioned that EPA had omitted any discussion at proposal of the need to regulate coal and oil combustion sources (A–83–08/IV–D–17, A–83–08/IV–D–18a, A–83–08/IV–D–18b). Two of these commenters felt that EPA has unjustifiably ignored this potentially significant category and wanted the Agency to carefully study or regulate it. In the case of coal combustion, EPA had reviewed the literature in 1979–80 and made a simple but conservative risk analysis with a series of model plants. Because of the large number of utility and industrial boilers that burn coal or oil and the lack of specific location data, EPA could not perform its normal nationwide exposure analysis; however, EPA was able to estimate the maximum concentrations and concluded that risks associated with those ambient concentrations were small. The report, entitled "Human Exposure to Atmospheric Arsenic" (OAQPS–19–8/II–A–9) concluded that because the realistic worst-case annual average environmental arsenic exposures for coal-fired power plants (and industrial boilers) are less than 0.003 $\mu g/m^3$ for all power plants and less than 0.001 $\mu g/m^3$ for most power plants, power plant (and industrial boiler) emissions do not add appreciably to nominal urban background concentrations. For oil combustion, EPA's review of the literature indicated that arsenic concentrations in oil were substantially lower than those measured in coal, and estimated that the exposure associated with oil combustion would be even lower than those concentrations given above for coal combustion. Based on further analysis of available data, the Agency continues to believe that the ambient concentrations of inorganic arsenic associated with emissions from coal and oil combustion are low. Inorganic arsenic, however, is only one of several trace elements of potential concern that are present in combustion emissions. Taken together, the Agency has concluded that such emissions warrant further study. The Agency is conducting exposure analyses for inorganic arsenic and a number of other pollutant emissions from this source category.

The NRDC stated that EPA has the obligation to regulate under section 112 *all* source categories of inorganic arsenic (A–83–08/IV–D–18a, A–83–08/IV–D–18b). The commenter's concerns would apply to two classifications of source categories that the Agency had decided not to regulate. The first classification of source categories includes those source categories with risks that, in the Administrator's judgment, are small or not significant. Regulating these source categories would provide only a small measure of risk reduction and as previously discussed, the impacts of control outweigh the benefits. The NRDC agreed to this approach in one of their comments (A–83–08/IV–D–18a), but there is a disagreement over when the Agency should stop consideration of a source category and move on to another. The second classification includes source categories that pose somewhat greater risks but, in light of the small benefits and large impacts of requiring further emission reduction, the risk levels are thought to be not unreasonable.

Two commenters listed a number of potential inorganic arsenic sources that were not mentioned in the July 20, 1983, notice of proposal (A–83–08/IV–D–17, A–83–08/IV–D–18a, A–83–08/IV–D–18b). For instance, municipal incinerators, rock wool manufacturing, and oil shale reporting were identified as inorganic arsenic source categories for regulation. One commenter (A–83–08/IV–D–17) felt that the Agency may have underestimated the emissions from these source categories. This commenter contended that the Agency failed to adequately address fugitive emissions and did not identify many individual sources within the categories. For example, the State of New York mentioned that the municipal incinerator and rockwool manufacturing emissions were estimated by assuming that the arsenic concentrations in the collected particulate matter were equivalent to the arsenic concentrations in the emitted particulate matter. The commenter suggested that this assumption leads to emission rate estimates that are lower than actual emissions because, based on measurements made at other source category facilities, arsenic concentrations in the emitted particulate matter are generally higher than those in the collected particulate matter. Also, the commenter pointed out that the number of incinerators will potentially increase in the future.

For these source categories, EPA had performed a preliminary study ("Study of Inorganic Arsenic Sources," OAQPS–79–8/IV–A–2) and had concluded that these source categories emit very small quantities of inorganic arsenic and pose small risks. For example, 102 municipal incinerators emitted about 5 Mg of inorganic arsenic per year and 43 rockwool production plants emitted 0.5 Mg of inorganic arsenic per year. The Agency reviewed the commenters' information and, although several of the suggestions were potentially valid, the Agency's emission estimates would not be significantly increased. Based on the Agency's understanding of the nature of the emissions, the low emission rates, and the number of plants, the Administrator has concluded that standards are not warranted for these categories.

Secondary Lead Smelters

One commenter (A–83–09/IV–D–8) stated that EPA does not know how many secondary lead smelters there are, and, as a result, EPA has no basis for statements referring to the level of control exhibited throughout the industry.

Following the publication of the negative determination proposal, an in-depth study was initiated by EPA to obtain additional information about the secondary lead industry and to assess the current level of control practiced throughout the industry. The information gathered in this study is contained in A–83–09/IV–A–5, "Control of Arsenic Emissions from Secondary Lead Smelting Industry—Technical Document."

The EPA defines a secondary lead smelter as any facility operating a blast, rotary, or reverberatory furnace for the purpose of reclaiming lead from lead

bearing scrap. Facilities that simply remelt lead in a melting pot for refining or recasting were not included in this category since these plants do not engage in smelting operations.

A preliminary list of secondary lead smelters was developed based on information obtained from previous EPA studies. It was soon learned that several secondary lead smelters had recently closed. The remaining facilities were contacted by EPA and subsequently requested to respond to a questionnaire regarding process and fugitive emission controls, arsenic usage, and emissions. Additional closures were identified during this survey. At the conclusion of this information gathering (December 1983), it had been determined that there were 43 secondary lead smelting plants in the United States (either open or temporarily closed). Confirmation of the accuracy and completeness of this listing was provided by both representatives of the Secondary Lead Industry Association and of several of the secondary smelters (A–83–09/II–B–25, A–83–09/II–1–6, A–83–09/II–I–7).

The level of emission control at each of the 43 plants was characterized using information obtained from responses to the questionnaire, telephone contacts with plant officials, and previously conducted trip reports or tests. In addition, EPA conducted plant visits to 14 of the 43 smelters (A–83–09/II–B–18, A–83–09/II–B–17, A–83–09/II–B–19, A–83–09/II–B–21, A–83–09/II–B–28). As a result of this study, EPA is confident that it has up-to-date information on emissions and controls for characterizing and basing decisions on the secondary lead smelting industry (A–83–09/IV–A–5 and A–83–09/IV–B–1).

One commenter (A–83–09/IV–D–9) expressed strong objection to EPA's reliance on OSHA workplace standards for inorganic arsenic, and the NAAQS for lead to control inorganic arsenic emissions from secondary lead smelters.

In response, EPA notes that data derived from a long-term ambient monitoring program near a large secondary lead smelter demonstrate a correlation between ambient lead and arsenic concentrations (A–83–09/II–A–2). The 758 measurements demonstrate a statistically significant relationship between the measured ambient arsenic and lead concentrations (i.e., high arsenic corresponds to high lead). Based on this correlation and on ambient arsenic levels measured near 16 secondary lead smelters (approximately 10 measurements for each plant), it is estimated that arsenic levels would be decreased by controls installed to achieve the lead NAAQS. Secondary lead smelters which were in compliance with the lead NAAQS (1.5 $\mu g/m^3$) demonstrated ambient arsenic levels of less than 0.03 $\mu g/m^3$.

The Administrator believes that where standards established under separate authorities (e.g., the OSHA inorganic arsenic standards) are effective in reducing emissions, redundant standards need not be established by EPA. The EPA establishes separate standards when there is evidence that either the control measures are not likely to remain in place or are unlikely to be properly operated and maintained. The Agency has concluded that adoption of redundant EPA standards would result in no emission reduction or other public health benefit beyond that achievable under OSHA standards.

One commenter (A–83–09/IV–D–20) stated that the process fugitive capture and control equipment used in the industry has not been characterized adequately (e.g. hood design, capture efficiency, etc.), and, consequently, EPA cannot validly conclude that process fugitive emissions are well controlled. During plant visits to 14 of the 43 secondary lead smelters, EPA qualitatively assessed the effectiveness of the fugitive capture and control equipment for process fugitive emissions. Based on these visual inspections, the industry-wide survey, and records demonstrating compliance with OSHA inorganic arsenic standards, EPA concluded that process fugitive emissions are well controlled. During a fugitive arsenic emissions test at a secondary lead smelter, samples were collected inside the smelter building near process fugitive emission points. The results from this study are summarized in "Control of Arsenic Emissions from Secondary Lead Smelting Industry—Technical Document (A–83–09/IV–A–5)."

One commenter (A–83–09/IV–D–10) pointed to apparent conflicts between statements in the Preliminary Source Survey document and statements in the July 20, 1983, **Federal Register** notice (48 FR 33121) concerning the current degree of area fugitive control. The commenter noted that the Preliminary Source Study indicates that most of the area sources are currently uncontrolled, whereas the conclusion drawn by the preamble is that fugitive sources are already controlled at the BAT level. Consequently, the commenter felt that fugitive emission sources and the status of their control had not been satisfactorily characterized.

After preparation of the Preliminary Source Survey document, a more detailed study of area fugitive sources and control was initiated. Of the potential fugitive area sources identified at secondary lead smelters, the only significant source of arsenic emissions was flue dust handling. Data on flue dust arsenic content from different smelters range from 0.001 to 5.0 percent by weight arsenic. The arsenic content of material from other potential fugitive sources were all approximately one order of magnitude lower.

Additional data were gathered on flue dust handling and storage practices (A–83–09/II–A–1). It was determined that, at the majority of plants, flue dust is controlled by enclosed and ventilated screw conveyors; and flue dust storage is either controlled by enclosure, or flue dust is recycled directly to the furnace. Only three of the plants (less than 5 percent) have open flue dust storage, and these facilities are in the process of eliminating this process. Thus, the Agency has concluded that additional control of area fugitive sources is not warranted.

Two commenters (A–83–09/IV–D–8, A–83–09/IV–D–10) said that EPA should consider requiring that secondary lead smelters be controlled with fabric filters followed by wet scrubbers. The commenters pointed out that the July 20, 1983, **Federal Register** notice of proposal (48 FR 33112) stated that "a fabric filter/wet scrubber is a demonstrated technology in the industry." The commenters thought emissions might be significantly reduced by requiring this technology.

Based on calculations in the Preliminary Source Survey document, EPA estimated at proposal that arsenic emissions from a fabric filter/scrubber combination could be approximately 60 percent less than arsenic emissions from a fabric filter alone.

Subsequent to the publication of the July 20, 1983, **Federal Register** notice, EPA conducted performance tests on a control system in which furnace offgases are controlled with a fabric filter and a wet scrubber (A–83–09/IV–A–2). Total inorganic arsenic removal efficiency of 98.86 percent was achieved by the fabric filter, while the fabric filter/wet scrubber combination removed 99.61 percent of the inorganic arsenic from the furnace offgases. These performance test results are in agreement with the preliminary estimates of arsenic emission reduction associated with the use of a wet scrubber after the fabric filter. However, the test results showed that arsenic concentrations in the inlet to the scrubber are much lower than had been estimated originally from lead to arsenic ratios. Therefore, arsenic emissions from fabric filter-controlled process sources at secondary lead

smelters are much lower than originally estimated.

Following the July 20, 1983, **Federal Register** notice, new nationwide arsenic emission estimates were made for process sources at secondary lead smelters. Requiring fabric filters to be followed by wet scrubbers would result in an estimated nationwide inorganic arsenic emission reduction of about 1.6 Mg/yr (1.8 tons/yr). This level of control would reduce inorganic arsenic emission estimates from about 7.2 to 5.6 Mg/yr (7.9 to 6.2 tons/yr). These estimates correspond to a 22 percent reduction in inorganic arsenic emissions from secondary lead smelters resulting from the use of scrubbers. However, the risks associated with all sources of inorganic arsenic emissions at secondary lead smelters would be reduced by a considerably lower percentage because the fugitive emissions which are released at or near ground level have the greatest effect on maximum lifetime risk.

As indicated in the **Federal Register**, the cost effectiveness of the fabric filter/wet scrubber control would correspond to approximately $600,000 to $12 million per Mg of arsenic removed depending upon total arsenic reduction achieved. According to a preliminary economic impact analysis, these control costs would have a severe effect on the secondary lead industry (A–83–09/IV–A–1).

Based on the small reduction in maximum lifetime risk and annual incidence associated with installing and operating a fabric filter/wet scrubber combination and the adverse economic impact, EPA has concluded that a Federal standard requiring this system is not warranted. Thus, the Agency is not requiring additional process control at secondary lead smelters.

Although maximum lifetime risk for secondary lead smelters is small (4×10^{-4}), the estimated annual incidence is higher (0.39 cases per year) than the other five sources for which standards were not promulgated. This higher estimated annual incidence is largely comprised of the incidence of 0.14 associated with a particular smelter. All other annual incidence estimates are below 0.01, with most below 0.0047. One reason for the higher incidence estimates at the one smelter is that the population exposed to emissions from that smelter is quite large (8.86 million within 50 km) compared to the entire category. The highest maximum estimated lifetime risk associated with any single secondary lead smelter is estimated to be 4×10^{-4}. The current estimate of emissions and health impacts are almost an order of magnitude lower than the impacts presented in the July 20, 1983, **Federal Register** notice.

The Agency believes that the fugitive emission sources in this industry are now largely controlled. Additional emission reduction, therefore, would be through increasing the efficiency of existing controls. A nationwide uniform standard to effect such controls would be difficult, if not impossible, to develop, and improvements that can be made would be necessarily site specific. The absence of site-specific engineering and emission information, the small maximum risk, the probable inability to achieve further significant reductions in emissions and incidence, and the difficulty in developing a uniform nationwide standard, have led EPA to conclude that Federal regulation of secondary lead smelters under section 112 is not warranted.

Cotton Gins

One commenter claimed that there is no valid basis for listing cotton gins as a point source for inorganic arsenic emissions under section 112 of the Clean Air Act (A–83–10/IV–D–5). The commenter stated that the usage of arsenic acid as a desiccant was overstated in EPA's study and, therefore, the Agency overestimated arsenic emissions and exposure from cotton gins. Another commenter stated that the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) restriction of arsenic acid application to 0.35 liters (1) per 1,000 m^2 (3 pints per acre) of cotton field was sufficient to protect the public (A–83–10/IV–D–4).

The Agency, when developing emission estimates for the cotton gins, did not use the usage data to which the commenter refers, but instead used the available data on measured arsenic in the cotton gin trash. Gin trash concentration data are directly related to gin emissions and provide a better estimate than arsenic acid usage figures. The Administrator agrees with the second commenter and believes that, as a result of the arsenic acid restriction, the estimated arsenic emissions will not increase over current levels.

Several commenters (A–83–10/IV–D–3, A–83–10/IV–D–4, A–83–10/IV–D–5, A–83–10/IV–D–6) expressed support for EPA's decision not to propose an inorganic arsenic emission standard for cotton gins. One commenter (A–83–10/IV–D–5) agreed with EPA's determination that the existing level of control for process emissions from cotton gins is BAT. Another commenter (A–83–10/IV–D–4) stated that the high cost of requiring any further control techniques would cause many cotton gin plants to close.

One commenter (A–83–10/IV–D–6) said that the State of California produces one-third of the cotton grown in the United States and does not permit any chemicals which contain inorganic arsenic to be used on cotton. The commenter concludes that no inorganic arsenic is emitted from cotton gins in California, and that, therefore, cotton gins should not be regulated.

The Agency agrees that cotton gins should not be regulated. However, although arsenic acid may not be used as a desiccant on cotton in California, it is used in other cotton-producing states, such as Texas and Oklahoma. Therefore, cotton gins were identified as a potential source of inorganic arsenic emissions. Farmers in Texas and Oklahoma grow varieties of short season cotton that have been specifically adapted for stripper harvesting. A desiccant must be applied to short season cotton prior to stripper harvesting to dry out green plant leaves to prevent fiber staining and unacceptable levels of fiber moisture content. In California, on the other hand, different varieties of cotton suited to the climate are grown and different harvesting techniques that do not require the use of arsenic are used.

The NRDC (A–83–09/IV–D–10) believes that the appropriate way to control cotton gin emissions is to prohibit the use of arsenic acid as a desiccant. The commenter added that the Preliminary Source Study only briefly mentions what seems to be a perfectly adequate alternative (i.e., heat treatment), while the preamble in the **Federal Register** does not mention this technique at all. The commenter said that according to the Preliminary Source Study, cotton can be desiccated by application of a relatively intense heat for a short time, and that experiments to date have required approximately 9.4 liters of liquid propane gas per 1,000 m^2 (10 gallons per acre). The commenter believes that commercial scale units for such desiccation would be more efficient, but gives no evidence to support this conclusion.

In response, EPA notes that the use of heated air for cotton desiccation was considered in a recent study which evaluated the potential economic impacts of restricting inorganic arsenicals (A–83–10/IV–A–1). The study reports a pilot test in which intense heat application was investigated as an alternative to arsenic acid for cotton desiccation. Preliminary estimates of heat desiccation provided by the commenter were $1.23 per 1,000 m^2

($4.98/acre) (arsenic acid is $0.62 per 1,000 m^2 [$2.50/acre]). However, heat desiccation has not been commercially demonstrated. Among the chemicals investigated, paraquat was identified as the only acceptable alternative to arsenic acid for cotton desiccation. However, the economic impact study demonstrated that the paraquat cost of $1.24 to $2.47/1,000 m^3 ($5–10/acre) was more than twice the cost of arsenic acid, which costs $0.62/1,000 m^3 ($2.50/acre). Among the other alternate technologies identified for cotton desiccation, a killing frost was the only acceptable alternative. The study concluded that "at present, there is no replacement chemical or new technique which is suited for preparation of cotton for mechanical stripping."

The maximum lifetime risk (5×10^{-4}) associated with the current level of process emission control from cotton gins is small and further possible reductions in this risk would be small. Furthermore, cotton gins are generally located in areas of low population density which would result in small annual incidence. There is not sufficient information available on the effectiveness of fugitive emission control techniques and such techniques have not been demonstrated amenable to all operational variabilities of cotton gins. Taking these factors into consideration, the Agency has decided that regulation of cotton gins under section 112 is not warranted at this time.

Additional studies are being conducted by EPA's Office of Pesticide Programs (OPP) to review all non-wood uses for inorganic arsenicals, including arsenic acid; this review is scheduled for completion later this year. A risk/benefit analysis will be done for arsenic acid use on cotton. This analysis will examine the adverse risks associated with the use of arsenic acid as a cotton desiccant. Also, information on the benefits of the use of the desiccant is being collected and analyzed. The risks and benefits of alternative chemicals for arsenic acid will also be analyzed.

Alternative courses of regulatory action will be considered as a result of the risk/benefit analysis. There are a number of components of alternative courses of action; these are the various statutory and regulatory methods EPA can use for restricting arsenic acid use under FIFRA. Examples of alternative courses of action are changes in labeling, classification, and tolerances, or cancellation for some or all uses. Some of these actions could result in reduction or elimination of arsenic emissions from cotton gins.

Zinc Oxide Plants

One commenter (A–83–11/IV–D–8) recommended that EPA again review the control technologies on zinc oxide plants. The commenter thought that an inorganic arsenic emission standard should be applied to zinc oxide plants. The commenter provided no specific criticisms of EPA's review and analysis of controls on zinc oxide plants or any reasons why EPA's analysis is inadequate. The EPA has reviewed the information contained in the public docket (A–83–11) and summarized in the July 20, 1983, **Federal Register** (48 FR 33117) and believes it adequately supports the decision not to propose a standard for inorganic arsenic emissions from zinc oxide plants.

One commenter (A–83–11/IV–D–10) said that the Preliminary Source Study (EPA–450/5–82–005) contains no specific information on the capture efficiency of the hoods and other fugitive emission controls at ASARCO-Columbus and New Jersey Zinc-Palmerton zinc oxide plants. The commenter added that EPA must evaluate whether emission controls are well designed and well operated before pronouncing them BAT.

Quantitative test data on fugitive emissions capture and control efficiencies are not available, but EPA does not believe such data are necessary to determine that fugitive controls used are adequate. As reported in the Preliminary Source Study, fugitive sources at both plants are controlled with estimated adequate ventilation technology followed by particulate removal in fabric filters (A–83–11/II–A–2). All ore storage areas, material transfer points, and furnace operations are enclosed and/or properly ventilated at each of these plants. In addition, both plants are in compliance with existing OSHA inorganic arsenic workplace standards indicating that the amount of fugitive emissions escaping capture is low. Consequently, no further study was made of the potential for fugitive capture and control device improvements.

One commenter (A–83–11/IV–D–10) said that the Preliminary Source Study concludes that the New Jersey Zinc-Palmerton plant is not equipped with "estimated best control" (EBC) technology, yet this conclusion was not mentioned in the notice of proposal and EPA has proposed to accept its current controls as BAT and sufficient. The commenter added that the Preliminary Source Study states that the best technique for fugitive emission collection for this plant is cooling the gas streams to a temperature of 110 °C (230 °F) and passing them through fabric filters. According to the Preliminary Source Study as cited by the commenter, all streams except the Walez kiln offgas stream are controlled at EBC. This stream is passed through a fabric filter operated at 140 °C (285 °F). The study states that lowering the temperature closer to the acid dew point of the stream (below 100 °C) would improve arsenic collection and concludes: "economic feasibility does not appear to be an impediment to estimated best control use" at this plant. The commenter said that the preamble states the general conclusion, derived from theoretical calculations, that further cooling of gas streams would not result in more arsenic collection. However, the commenter noted that the actual data consistently show more arsenic collected than the theory predicts, for given combinations of concentration and temperature, and therefore, EPA should not rely on the theory to excuse further controls.

After the Preliminary Source Study was completed, EPA visited the New Jersey Zinc Palmerton plant. Samples of all major streams and mass flowrate data were collected during the site visit to verify the estimated material balance from the preliminary study. The mass flowrates, arsenic contents, and analysis examining the potential effect of cooling the gas streams to condense additional arsenic are included in Docket Number A–83–11, Item Numbers II–B–3 and II–B–5. The temperature of the Waelz kiln emission stream was found to be lower than that reported in the Preliminary Study. The temperature above the discharge hoppers from the fabric filter ranged from 77 to 199 ° C (170 to 390 °F). Based on material balance calculations, the stream was not saturated with arsenic at this temperature. Further cooling of the stream with, for example, spray chambers would be impossible without redesign of the entire cooling system since the Waelz oxide must be collected dry. The company has tried additional cooling in the past, but the procedure resulted in water condensation on oxide particles, which required downtime for cleanup. Furthermore, additional cooling would not result in a significant increase in arsenic collection because of the low arsenic concentration in the stream.

In conclusion, EPA has determined that regulation of inorganic arsenic emissions from zinc oxide plants is not warranted at this time. The estimated annual incidence is 0.08, and the maximum lifetime risk is 1×10^{-3}. Although the current estimate of maximum lifetime risk is higher than four of the other five negative

determination source categories, EPA has concluded that existing controls (A–83–11/II–B–4) or those planned for the near future to comply with OSHA and SIP regulations (A–83–11/II–A–2) will reduce emissions and associated maximum lifetime risk without causing serious economic impacts. The EPA cannot identify any control requirements beyond those established by OSHA that would not result in closure of the plant associated with the highest maximum lifetime risk in this source category. Thus, the Agency is not promulgating a standard for zinc oxide plants under section 112.

Primary Lead Smelters

The NRDC (A–83–23/IV–D–10) stated that limited information on arsenic emissions and arsenic controls from the five primary lead smelters is presented in a document entitled "Preliminary Study of Sources of Inorganic Arsenic" (EPA–450/5–82–005). The commenter added that arsenic is present in Missouri lead ore concentrates at levels "typically" about 0.02 percent by weight, and in Western lead ore concentrates at levels ranging from "about 0.1 to 0.4 percent." The commenter stated, however, that in the above mentioned document, no range is given for the Missouri ore concentrates. The NRDC pointed out that the arsenic content of the Western ore concentrates is in the same range as the low-arsenic copper ore concentrates, the smelting of which EPA proposed to regulate.

The EPA believes information summarized in the July 20, 1983, **Federal Register** notice of the proposed standard for inorganic arsenic (48 FR 33112) and in the Preliminary Source Study adequately supports EPA's decision not to regulate primary lead smelters. Arsenic is present in Missouri lead ore concentrates at levels ranging from 0 to 0.02 percent by weight (A–83–23/IV–E–2). Although arsenic contents may be similar in Western lead ore concentrates and low arsenic copper ore concentrates, the types of control systems, production processes, and emission points vary considerably between copper and lead smelting. All primary lead smelters are covered by SIP's for SO_2 and particulate matter. In addition, they are moving toward compliance with OSHA lead standards (A–83–23/IV–B–2, A–83–23/IV–J–6, A–83–23/IV–J–7, A–83–23/IV–J–8). As a result, low temperature fabric filter systems or contact sulfuric acid plants are reducing emissions from process vents, and fugitive emissions are controlled by enclosing ore storage areas, ventilating and/or enclosing material transfer points, ventilating and/or enclosing furnace operations, and treatment of all the ventilation gas streams with fabric filter systems. The EPA considers these controls effective and in view of this does not consider the inorganic arsenic emissions or estimated risks to warrant further control.

The NRDC (A–83–23/IV–D–10) stated that arsenic is contained in process emissions from sintering machines, blast furnaces, drossing kettles, dross furnaces, and lead refineries. They added that the Preliminary Source Study defines "estimated best technology" for process emissions as use of a sulfuric acid plant on streams in which SO_2 is present in sufficient concentrations, and use of fabric filters on other systems. The NRDC noted that the study reports that EPA has no test data on the removal efficiency of existing systems, but by analogy to copper smelting controls, EPA estimates that "arsenic removal efficiencies greater than 90 percent are currently being achieved by existing acid plants and fabric filter systems." The NRDC argued that from this, the preamble draws the following conclusions: (1) That existing controls represent BAT, and (2) that "EPA knows of no demonstrated control techniques, short of closure, that would result in further inorganic arsenic emissions reduction" (48 FR 33117). The NRDC felt that several additional questions must be asked before this conclusion could be accepted.

First, NRDC stated that according to the available copper smelting background information materials, the arsenic collection efficiency of acid plants is estimated to be as high as 99 percent. They added that the collection efficiency of baghouses is estimated to be as high as 99.5 percent (for particulate matter, and presumably for arsenic in the particulate phase). They concluded that if the collection efficiency of the lead smelter systems is only "greater than 90 percent," why is it considered BAT?

Second, NRDC said that the study states that the ideal temperature for operation of fabric filters, for greatest removal efficiencies without corrosion problems, is 10 to 25 °C (18 to 45 °F) above the acid dew point of the gas streams. They added that the study then states that filters are currently run without corrosion problems at temperatures of 100 to 125 °C (212 to 257 °F). However, NRDC pointed out that no data have been collected for the temperature representing the acid dew points. They also noted that, from the data presented, it is not possible to conclude that filters are currently being run at the optimum temperature—i.e., at no more than 10 to 25 °C (18 to 45 °F) above the acid dew point. They postulated that perhaps the gas streams can be cooled further and arsenic collection efficiencies enhanced. The NRDC also stated that EPA has not given any information on the feasibility or cost of means to deal with corrosion at temperatures below the acid dew point. They noted that even though the BID's for proposed standards for high- and low-arsenic copper smelters state that spray chambers are effective in combating corrosion, and that a variety of corrosion resistant materials are available, none of this is discussed with regard to primary lead smelting.

The NRDC felt that neither measures to enhance capture and collection efficiencies to percentages in the high 90's, nor measures to further reduce the operating temperatures of fabric filters so as to enhance arsenic condensation, are necessarily expensive. They concluded that EPA does not seem justified in its conclusion that no additional control measures short of closure have been demonstated.

In response, EPA is not aware of any data on the efficiency of sulfuric acid plants for controlling arsenic emissions from primary lead smelter offgases. By analogy to copper smelting controls, EPA conservatively estimated that removal efficiencies greater than 90 percent are being achieved. The removal efficiency estimate persented in the **Federal Register** was conservative and, therefore, by no means intended to imply that contact acid plants at primary lead smelters were any less efficient than those operated at primary copper smelters. Since acid plant control is similar in both cases, and arsenic is objectionable in the project acid (maximum allowable limit of arsenic in the gas stream entering the contact acid plant is 1.1 mg/dscm [0.0005 gr/scf]) (A–83–23/IV–J–1), EPA concludes that collection efficiency percentages are greater than 90 percent and presumably in the high 90's (A–83–11/II–A–1). Consequently, EPA has not investigated additional control measures to enhance capture and collection efficiencies beyond the existing level of control.

The NRDC recommended that acid dew point temperatures for various offgas streams be determined to investigate the possibility of enhancing arsenic collection efficiencies by additional cooling of the streams. Estimation of acid dew points requires the determination of moisture (which is readily available) and sulfur trioxide (SO_3) content of the gases. Sulfur trioxide is generally measured by indirect methods (conversion of the

vapor phase SO_3 to sulfuric acid and the subsequent condensation of sulfuric acid), and each of the commonly used methods has limitations and problems associated with reproducibility and accuracy (A–83–23/IV–J–4). Therefore, in general, plants do not have the equipment and/or techniques available for determining SO_3 concentrations in process offgases and, consequently, these measurements have not been made. In review of the available literature, SO_3 measurements have not been reported for any of the primary lead smelter process streams which are currently controlled by fabric filters.

In well-characterized streams, SO_3 values may be estimated based on the quantity of SO_2 in the gas (A–83–23/IV–J–3). However, many factors affecting primary lead smelter offgas streams, such as firing rate, excess air, presence of catalytic metallic oxides of vanadium, iron, nickel, or sulfur adsobing additives such as magnesium oxide, will drastically change the SO_3 content (A–83–23/VI–J–2). Such uncertainties mean that it is not feasible to estimate SO_3 concentrations in primary lead smelter streams. Consequently, acid dew points vary from plant to plant and do not remain constant even for a single process stream.

Plan operators "determine" acid dew points by noting temperature ranges at which the fabric filter beings to corrode due to acid condensation. As a result, operators maintain the stream temperature well above this temperature range to ensure that acid condensation, and subsequent corrosion, do not occur.

The NRDC would have EPA require plant operators to adjust the process stream temperature to slightly above the acid dew point in hopes of increasing arsenic trioxide condensation, and thus the arsenic collection efficiency of the fabric filter. Because an accurate estimate of acid dew point cannot be made based on the available data, EPA estimated the amount of cooling that would be required to enhance arsenic collection based on arsenic trioxide saturation theory. Based on low arsenic concentrations in the process streams (less than 1 percent of the concentration required for saturation), theory predicts substantial cooling must take place before arsenic trioxide saturation conditions are reached. Such cooling corresponds to offgas temperatures that are below the dew point of water and, therefore, below the lower bound of the acid dew point. For some streams, cooling to below ambient temperatures would be required to reach arsenic trioxide saturation. The EPA believes that to require cooling of gas streams to below ambient temperatures would be inappropriate and the costs would not be justified by the small additional emission reduction achieved.

The NRDC (A–83–12/IV–D–10) stated that according to the Preliminary Source Study, fugitive emissions can be captured and controlled by "hooding and enclosure of emission points followed by particulate removal using fabric filter or wet scrubbing systems," or in the case of sintering machines, by "total or partial enclosure of the operation." The NRDC noted that these techniques are said to be "commonly used" or "generally used," implying that they are not universally used.

The commenter said that for inorganic arsenic standards development, EPA has collected no test data on capture efficiencies of such equipment as is used. They quoted the study as follows (p. 59): "By analogy to the copper smelting industry, it is expected that the best available capture ventilation systems should be capable of approximately 90 percent fugitive arsenic emission capture. The performance of the existing ventilation system in the primary lead smelting industry is expected to be below this level."

The NRDC concluded that if the equipment in use in the lead smelters is less effective than the best available technology, then EPA is not justified in concluding that the Agency knows of no additional control measures short of closure which are available. They argued that substandard fugitive emission controls can be improved.

In response, EPA noted that test data are not available to determine the arsenic removal efficiencies of existing primary lead smelter fugitive control systems. the OSHA lead standard of 50 $\mu g/m^3$ is being exceeded at all five primary lead smelters, and the OSHA inorganic arsenic standard of 10 $\mu g/m^3$ is being exceeded at two of the five plants. The OSHA work place standard exceedances measured at primary lead smelters are due to emissions from fugitive sources. On this basis, the current level of fugitive control in the primary lead industry is estimated as lower than that achieved by the copper smelting industry. However, as a result of the current OSHA exceedances, improvements in the fugitive control systems are being required at all plants and are specifically described in consent agreements for SIP compliance and tripartite agreements signed by smelters and OSHA (A–83–23/IV–J–6, A–83–23/IV–J–7, A–83–23/IV–J–8). The modifications are specifically designed to achieve compliance with the OSHA inorganic lead standard. The ASARCO–El Paso and ASARCO–East Helena smelters have already signed agreements with OSHA that will result in improvements in their fugitive emission control systems. Therefore, EPA estimates that the performance of the modified ventilation systems will be capable of capture efficiencies similar to those demonstrated at primary copper smelters.

The NRDC (A–83–23/IV–D–10) strongly disagreed with the implication in the July 20, 1983, **Federal Register** notice (48 FR 33117) that it is sufficient to rely on the existing SIP requirements for SO_2 and particulate matter, the OSHA standards, and the still-to-be-formulated SIP's for lead. The NRDC notes that since EPA reports substantial noncompliance with such standards, they can hardly be an adequate substitute for a section 112 standard for inorganic arsenic.

As explained in response to the first comment discussed on primary lead smelters, EPA believes that effective controls will be installed on all smelters as a result of recent agreements among OSHA, smelter management, and labor. Agency policy is to avoid promulgating standards that would increase administrative costs but would not produce additional emission reduction.

The Attorney General's Office of the State of New York (A–83–23/IV–D–9) objected to EPA's decision to not regulate primary lead smelting fugitive emissions even though fugitive emissions are estimated at 0.59 kg (1.3 lb) arsenic per hour. The commenter added that of this amount, 96.2 percent occurs in the dross/reverb building.

The Agency is not regulating primary lead smelting plants under section 112 for two main reasons. First, the predicted annual incidence of cancer is small for all primary lead smelters (less than 0.07 cases per year). Second, although the maximum lifetime risk estimate (2×10^3) is higher compared to other negative determination source categories, this is mainly attributable to one of the five primary lead smelters. Engineering controls such as ventilation systems and fabric filters are now required at all primary lead smelters to reduce work-place lead-in-air concentrations as a result of recent tripartite agreements among OSHA, smelter management, and labor. Preliminary actions in response to these agreements have resulted in reduced ambient arsenic levels at the smelter with the highest risk estimates (A–83–23/IV–B–2). Data show an average reduction in the ambient concentration of about 45 percent in the first three

quarters of 1984 compared to 1981 through 1983. The EPA has not identified any controls beyond those necessary to comply with the OSHA and lead SIP requirements that could further reduce arsenic emissions to a significant degree.

Primary Zinc Smelters

The NRDC (A–83–23/IV–D–10) stated that EPA has not sufficiently investigated whether the equipment and techniques for fugitive emissions capture at the St. Joe Minerals smelter in Monaco, Pennsylvania, are state-of-the-art. They added that further documentation of the adequacy of these controls is necessary before EPA can make the conclusion that no further controls short of closure are available.

The EPA believes that effective technology for controlling fugitive emissions from zinc smelters includes enclosure of ore storage areas, enclosure and/or ventilation of materials transfer points and furnace operations, and treatment of all ventilation gas streams with fabric filters. Efficiencies of fugitive emission capture and control systems are difficult to test, and quantitative control efficiency data are not available for the St. Joe zinc plant. However, there is nonquantitative information that shows the controls are effective.

The following information supports the conclusion that St. Joe Minerals is using effective control for fugitive arsenic emissions. At St. Joe Minerals, all of the major operations with fugitive arsenic emissions are conducted inside buildings (A–83–23/IV–C–1, A–83–23/IV–E–1, A–83–23/IV–J–5). All ore is received by train and unloaded in the receiving building, and sinter material is stored in silos above the furnaces. There are no visible fugitive emissions from these two sources. Fugitive emissions from the electrothermal furnaces are dependent on furnace operation. When properly operated, negative pressure is maintained in the lower sections of the furnace so emissions from this source do not escape capture. During upsets, there may be fugitive emissions from this source. However, according to State agency personnel, furnaces at the plant are well-operated. Captured fugitive dusts from the electrothermal furnaces are ducted through fabric filters (A–83–23/IV–C–1, A–83–23/IV–E–1, A–83–23/IV–J–5). Emissions from holding bins, feeders, and transfer points are also collected and passed through fabric filters (A–83–23/IV–C–1, A–83–23/IV–E–1, A–83–23/IV–J–5). Arsenic emissions testing at St. Joe indicated that the largest source of controlled arsenic emissions is the sinter machine offgas stream (A–83–23/II–A–1). Arsenic emissions from fugitive sources are reported to be negligible in comparison to sinter machine emissions. The facility is constantly upgrading the process fugitive capture systems to reduce the work place lead concentrations. The plant is in compliance with the OSHA regulations for inorganic arsenic, which demonstrates the efficiency of the fugitive emission controls applies at the smelter. For these reasons, the Agency believes that the St. Joe Minerals smelter is adequately controlled.

To summarize, the Agency has not developed a standard for primary zinc smelters because these sources are effectively controlling emissions in response to existing regulatory requirements. Maximum lifetime cancer risk (7×10^{-6}) and annual incidence (0.004 cancer cases per year) are small. Further significant reductions in incidence and maximum lifetime risks cannot be achieved with available control measures. Additional significant emission reduction can be achieved only by closing facilities. The Agency does not believe that requiring plant closure is a reasonable control alternative. Taking these factors into consideration, the Administrator has concluded that Federal regulation under section 112 is not currently warranted.

Arsenic Chemical Manufacturing Plants

The New Jersey Department of Environmental Protection (DEP) (A–83–23/IV–D–8) felt that for arsenic chemical manufacturing plants with relatively high risk, the use of both fabric filters and wet scrubbers in series would seem appropriate. They stated that in the July 20, 1983, notice EPA reported that for secondary lead smelters a 65 percent reduction in the cancer risk would result when a fabric filter/wet scrubber combination was used rather than a fabric filter without a scrubber. The New Jersey DEP stated that since most arsenic emissions from arsenic chemical manufacturing plants are emitted in the vapor phase and scrubbers will cause condensation of some of the arsenic, a comparison should be made between the arsenic removal efficiencies of fabric filters and wet scrubbers.

Some secondary lead smelters use wet scrubbers in series with fabric filters for SO_2 control. This combination of control devices has been demonstrated to achieve further reduction of arsenic emissions. It is thought that the scrubbr provides additional cooling which results in additional condensation and, hence, removal of arsenic. However, the Agency is not requiring the use of wet scrubbers under Section 112 because of the relatively small reduction in maximum lifetime risk and annual incidence and because of the adverse economic impact. This decision is discussed in response to comments concerning secondary lead smelters.

The exhaust gas in arsenic chemical plants is at ambient temperature, while the flue gas in secondary lead smelters ranges from 31 °C to 200 °C (88 °F to 392 °F). Since the flue gas of arsenic chemical manufacturing plants is cool and emissions are already in particulate form, a wet scrubber is not needed. If proper engineering design and operating procedures are followed, fabric filters can reduce these arsenic trioxide particulate emissions by about 99.5 percent. The efficiency of fabric filters at chemical manufacturing facilities is higher than for some other source categories that emit arsenic because arsenic trioxide particulate is at ambient tempertures in chemical manufacturing.

The NRDC (A–83–23/IV–D–10) stated that the principal weakness of the analysis for this category is the lack of date or analysis regarding the efficiency of capture of fugitive arsenic trioxide dusts at the eight sources of most interest. The NRDC noted that for four of the facilities, the information EPA does have is considered confidential. For the other plants, the commenter stated that the descriptions of capture techniques are cursory. The NRDC said that EPA does not appear to have engaged in any evaluation of their efficiency. They concluded that EPA is then unable to say if the hoods, enclosures, or vacuum systems used are really BAT.

In response, EPA notes that no quantifiable data are available on the capture efficiency of the hooding and enclosures used to collect fugitive arsenic trioxide dusts within the eight arsenic chemical manufacturing plants studied. However, qualitative evaluations were conducted based on the engineering design of the capture devices. Because the arsenic plants were in compliance with the OSHA workplace limit of 10 $\mu g/m^3$, the capture devices used during the handling and processing of powdered arsenic trioxide can reasonably be expected to be operating efficiently. The companies provided EPA with data on the design of the capture systems used for controlling fugitive emissions. In several cases, these data were considered proprietary by the companies and, therefore, EPA did not release them for publication. The EPA considers these capture systems to be effective.

The EPA is not regulating arsenic chemical manufacturing plants under

Section 112 of the Act because the maximum individual cancer risks (2×10^{-4}) and the annual incidence (0.004 cancer cases per year) are small, and the plants are currently controlled in response to existing regulatory requirements and due to the economic benefits of collecting and reusing arsenic trioxide. Further significant reductions in annual incidence and maximum lifetime risk cannot be achieved.

VII. Miscellaneous

The effective date of these regulations is August 4, 1986. Section 112 of the Clean Air Act provides that national emission standards for hazardous air pollutants, or revisions thereof, become effective upon promulgation.

As prescribed by section 112, establishment of these standards was preceded by the Administrator's determination that inorganic arsenic is a hazardous air pollutant as defined in section 112(a)(1) of the Act. Inorganic arsenic was added to the list of hazardous air pollutants on June 5, 1980.

An economic impact assessment was prepared for each standard and for other regulatory alternatives. The updated economic impact assessment for each standard is included in the BID's for the promulgated standards (EPA–450/3–83–010b and EPA–450/3–83–011b).

Docket

The docket is an organized and complete file of all information submitted to or otherwise considered by EPA in the development of the standards. The principal purposes of the dockets are (1) to allow interested parties to identify and located documents readily so that they can intelligently and effectively participate in the rulemaking process, and (2) to serve as the record in case of judicial review (except for interagency review materials (§ 307(d)(7)(A))).

Reporting and Recordkeeping

The information collection requirements contained in these standards (§§ 61.165, 61.176, 61.177, 61.185, 61.186) have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* The OMB control numbers assigned to the regulations are as follows: (1) Glass manufacturing plants, 2060–0043; (3) primary copper smelters; 2060–0044; and (3) arsenic trioxide and metallic arsenic production facilities, 2060–0042. The preamble and BID for each standard responds to comments on the recordkeeping and reporting requirements of that standard.

There are no reporting requirements by other governmental agencies for the information required by these standards which would result in overlapping requirements. In particular, there is no overlap with the reporting requirements of the Superfund program. The Superfund program was established in 1980 by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, Pub. L. 96–510) and authorizes the Federal government to respond directly to releases (or threatened releases) of hazardous substances and pollutants or contaminants to any media that may endanger public health or welfare. Under the notification and liability provisions of section 103 (see 48 FR 23552, May 25, 1983), CERCLA requires that persons in charge of vessels or facilities from which hazardous substances have been released in quantities that are equal to or greater than the reportable quantities immediately notify the National Response Center of the release (800–424–8802; in Washington, DC, metropolitan area 202–426–2675). However, air releases which qualify as federally-permitted releases, such as inorganic arsenic emissions that are regulated under section 112 of the Clean Air Act, are not subject to the notification or liability provisions of CERCLA unless the air releases are in excess of the allowable NESHAP emissions by an amount equal to or greater than the reportable quantity; in this case, persons in charge must report the excess air releases to the National Response Center. (Reporting under CERCLA does not excuse the persons in charge from any responsibility, including reporting, or liability under the NESHAP program.)

Executive Order 12291

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirements of a Regulatory Impact Analysis. None of the standards are considered major because none are expected to result in: (1) An annual effect on the economy of $100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or (3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. This rulemaking was submitted to the Office of Management and Budget for review as required by the Executive Order 12291. Any comments from OMB to EPA and any EPA response to those comments are available for public inspection in the Dockets (see **ADDRESSES**).

Regulatory Flexibility Analysis

The Regulatory Flexibility Act of 1980 (RFA) requires that differential impacts of Federal regulations upon small businesses be identified and analyzed. The RFA stipulates that an analysis is required if a substantial number of small businesses will experience significant impacts. Both measures must be met: that is, a substantial number of small businesses must be affected and they must experience significant impacts, to require an analysis. Twenty percent or more of the small businesses in an affected industry is considered a substantial number. The EPA definition of significant impact involves three tests, as follows: (1) Prices of produced by small entities rise 5 percent or more, assuming costs are passed on to consumers; (2) annualized investment costs for pollution control are greater than 20 percent of total capital spending; or (3) costs as a percent of sales for small entities are 10 percent greater than costs as a percent of sales for large entities.

The EPA has analyzed the impacts of the standards and has concluded that small businesses will not incur significant impacts. The bases for these conclusions are summarized below.

The Small Business Administration (SBA) definition of a small business for Standard Industrial Classification (SIC) Code 3331, Primary Smelting and Refining of Copper is 1,000 employees. All primary copper smelters in the United States are owned by seven companies that each have more than 1,000 employees. Therefore, none of the seven companies meets the SBA definition of a small business and no regulatory flexibility analysis is required for the primary copper smelter standard. Similarly the metallic arsenic and arsenic trioxide production facilities standard affects only one facility that is operated by a copper company with more than 1,000 employees. Therefore, no regulatory flexibility analysis is required for this standard.

Because of several aspects of the standard, the glass manufacturing plants standard will not result in significant small business impacts. These aspects are: (1) The exclusion of existing furnaces that emit 2.5 Mg of arsenic per year, or less, and new or modified

furnances that emit 0.4 Mg per year, or less, from the requirement of 85 percent emission reduction; (2) the exemption of pot furnaces; and (3) the provision that the emission testing requirement can be waived if nontest methods are adequate to demonstrate that arsenic emissions do not exceed 2.5 Mg/yr or 0.4 Mg/yr. Owning to these provisions, the standard does not significantly affect any small businesses. Therefore, no regulatory flexibility analysis is required, and the preliminary analysis that was prepared at the time of proposal was not finalized.

Regulatory Flexibility Act Certification

Under the provisions of 5 U.S.C. 605(b), I hereby certify that the standards for primary copper smelters, glass manufacturing plants, and arsenic trioxide and metallic arsenic production facilities promulgated today will not have a significant economic impact on small business entities because the only affected firms are not small and no new facilities ae expected.

List of Subject in 40 CFR Part 61

Asbestos, Beryllium, Glass, Hazardous substances, Inorganic arsenic, Mercury, Primary copper smelters, Radionuclides, Reporting and recordkeeping requirements, Vinly chloride.

Dated July 3, 1986.

Lee M. Thomas,

Administrator.

Part 61–[Amended]

Part 61 is amended by adding Subparts N, O, and P, and Reference Methods 108 and 108A to Appendix B, as follows:

1. The authority citation for Part 61 continues to read as follows:

Authority: 42 U.S.C. 7401, 7412, 7414, 7416, 7601.

2. The Table of Sections is amended by adding Subparts N, O, and P and Reference Methods 108 and 108A as follows:

Subpart N—National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants

Sec.

61.160 Applicability and designation of source.
61.161 Definitions.
61.162 Emission limits.
61.163 Emission monitoring.
61.164 Test methods and procedures.
61.165 Reporting and recordkeeping requirements.

Subpart O—National Emission Standard for Inorganic Arsenic Emissions from Primary Copper Smelters

Sec.

61.170 Applicability and designation of source.
61.171 Definitions.
61.172 Standard for new and existing sources.
61.173 Compliance provisions.
61.174 Test methods and procedures.
61.175 Monitoring requirements.
61.176 Recordkeeping requirements.
71.177 Reporting requirements.

Subpart P—National Emission Standard for Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities

Sec.

61.180 Applicability and designation of sources.
61.181 Definitions.
61.182 Standard for new and existing sources.
61.183 Emission monitoring.
61.184 Ambient air monitoring for inorganic arsenic.
61.185 Recordkeeping requirements.
61.186 Reporting requirements.

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Appendix B—Test Methods

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2. Part 61 is amended by adding Subpart N as follows:

Subpart N—National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants

§ 61.160 Applicability and designation of source.

(a) The source to which this subpart applies is each glass melting furnace that uses commercial arsenic as a raw material. This subpart does not apply to pot furnaces.

(b) Rebricking is not considered construction or modification for the purposes of § 61.05(a).

§ 61.161 Definitions.

The terms used in this subpart are defined in the Clean Air Act, in § 61.02, or in this section as follows:

"Arsenic-containing glass type" means any glass that is distinguished from other glass solely by the weight percent of arsenic added as a naw material and by the weight percent of arsenic in the glass produced. Any two or more glasses that have the same weight percent of arsenic in the raw materials as well as in the glass produced shall be considered to belong to one arsenic-containing glass type, without regard to the recipe used or any other characteristics of the glass or the method of production.

"By-pass the control device" means to operate the glass melting furnace without operating the control device to which that furnace's emissions are directed routinely.

"Commercial arsenic" means any form of arsenic that is produced by extraction from any arsenic-containing substance and is intended for sale or for intentional use in a manufacturing process. Arsenic that is a naturally occurring trace constituent of another substance is not considered "commercial arsenic."

"Cullet" means waste glass recycled to a glass melting furnace.

"Glass melting furnace" means a unit comprising a refractory vessel in which raw materials are charged, melted at high temperature, refined, and conditioned to produce molten glass. The unit includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, melter cooling system, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation, and appendages for conditioning and distributing molten glass to forming apparatuses. The forming apparatuses, including the float bath used in flat glass manufacturing, are not considered part of the glass melting furnace.

"Glass produced" means the glass pulled from the glass melting furnace.

"Inorganic arsenic" means the oxides and other noncarbon compounds of the element arsenic included in particulate matter, vapors, and aerosols.

"Malfunction" means any sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of arsenic are increased.

"Pot furnace" means a glass melting furnace that contains one or more refractory vessels in which glass is melted by indirect heating. The openings of the vessels are in the outside wall of the furnace and are covered with refractory stoppers during melting.

"Rebricking" means cold replacement of damaged or worn refractory parts of the glass melting furnace. Rebricking includes replacement of the refractories comprising the bottom, sidewalls, or roof of the melting vessel; replacement of refractory work in the heat exchanger; and replacement of refractory portions of the glass conditioning and distribution system.

"Shutdown" means the cessation of operation of an affected source for any purpose.

"Theoretical arsenic emissions factor" means the amount of inorganic arsenic,

expressed in grams per kilogram of glass produced, as determined based on a material balance.

"Uncontrolled total arsenic emissions" means the total inorganic arsenic in the glass melting furnace exhaust gas preceding any add-on emission control device.

§ 61.162 Emission limits.

(a) The owner or operator of an existing glass melting furnace subject to the provisions of this subpart shall comply with either paragraph (a)(1) or (a)(2) of this section; except as provided in paragraph (c) of this section.

(1) Uncontrolled total arsenic emissions from the glass melting furnace shall be less than 2.5 Mg per year, or

(2) Total arsenic emissions from the glass melting furnace shall be conveyed to a control device and reduced by at least 85 percent.

(b) The owner or operator of a new or modified glass melting furnace subject to the provisions of this subpart shall comply with either paragraph (b)(1) or (b)(2) of this section, except as provided in paragraph (c) of this section.

(1) Uncontrolled total arsenic emissions from the glass melting furnace shall be less than 0.4 Mg per year, or

(2) Total arsenic emissions from the glass melting furnace shall be conveyed to a control device and reduced by at least 85 percent.

(c) An owner or operator of a source subject to the requirements of this section may, after approval by the Administrator, bypass the control device to which arsenic emissions from the furnace are directed for a limited period of time for designated purposes such as maintenance of the control device, as specified in § 61.165(e).

(d) At all times, including periods of startup, shutdown, and malfunction, the owner or operator of a glass melting furnace subject to the provisions of this subpart shall operate and maintain the furnace and associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions of inorganic arsenic to the atmosphere to the maximum extent practicable. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, inspection of the source, and review of other records.

§ 61.163 Emission monitoring.

(a) An owner or operator of a glass melting furnace subject to the emission limit in § 61.162(a)(2) or § 61.162(b)(2) shall:

(1) Install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device; and

(2) Install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the temperature of the gas entering the control device.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to performance of an emission test required by § 61.164(a). Verification of operational status shall, at a minimum, consist of an evaluation of the monitoring system in accordance with the requirements and procedures contained in Performance Specification 1 of Appendix B of 40 CFR Part 60.

(c) During the emission test required in § 61.164(a) each owner or operator subject to paragraph (a) of this section shall:

(1) Conduct continuous opacity monitoring from the beginning of the first test run until the completion of the third test run. Process and control equipment shall be operated in a manner that will minimize opacity of emissions, subject to the Administrator's approval.

(2) Calculate 6-minute opacity averages from 24 or more data points equally spaced over each 6-minute period during the test runs.

(3) Determine, based on the 6-minute opacity averages, the opacity value corresponding to the 97.5 percent upper confidence level of a normal or lognormal (whichever the owner or operator determines is more representative) distribution of the average opacity values.

(4) Conduct continuous monitoring of the temperature of the gas entering the control device from the beginning of the first test run until completion of the third test run.

(5) Calculate 15-minute averages of the temperature of the gas entering the control device during each test run.

(d) An owner or operator may redetermine the values described in paragraph (c) of this section during any emission test that demonstrates compliance with the emission limits in § 61.162(a)(2) or § 61.162(b)(2).

(e) The requirements of § 60.13(d) and § 60.13(f) shall apply to an owner or operator subject to paragraph (a) of this section.

(f) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under § 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(g) An owner or operator subject to paragraph (a) of this section shall:

(1) Reduce all opacity data to 6-minute averages. Six-minute averages shall be calculated from 24 or more data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages calculated under this paragraph, and

(2) Calculate 15-minute averages of the temperature of the gas entering the control device for each 15-minute operating period.

(h) After receipt and consideration of written application, the Administrator may approve alternative monitoring systems for the measurement of one or more process or operating parameters that is or are demonstrated to enable accurate and representative monitoring of a properly operating control device. Upon approval of an alternative monitoring system for an affected source, the Administrator will specify requirements to replace the requirements of paragraphs (a)–(g) of this section for that system.

§ 61.164 Test methods and procedures.

(a) To demonstrate compliance with § 61.162, the owner or operator shall conduct emission tests, reduce test data, and follow the procedures specified in this section unless the Administrator:

(1) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;

(2) Approves the use of an equivalent method;

(3) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance; or

(4) Waives the requirement for emission tests as provided under § 61.13.

(b) Unless a waiver of emission testing is obtained, the owner or operator shall conduct emission tests required by this section:

(1) No later than 90 days after the effective data of this subpart for a source that has an initial startup date preceding the effective date; or

(2) No later than 90 days after startup for a source that has an initial startup date after the effective date.

(3) At such other times as may be required by the Administrator under Section 114 of the Act.

(4) While the source is operating under such conditions as the Administrator may specify, based on representative performance of the source.

(c) To demonstrate compliance with § 61.162(a)(1) when less than 8.0 Mg per year of elemental arsenic is added to any existing glass melting furnace, or to demonstrate compliance with § 61.162(b)(1) when less than 1.0 Mg per year of elemental arsenic is added to any new or modified glass melting furnace, an owner or operator shall:

(1) Derive a theoretical uncontrolled arsenic emission factor (T), in grams of elemental arsenic per kilogram of glass produced, based on material balance calculations for each arsenic-containing glass type (i) produced during the 12-month period, as follows:

$$T_i = (A_{bi} \times W_{bi}) + (A_{ci} \times W_{ci}) - A_{gi}$$

Where:

T_i = the theoretical uncontrolled arsenic emission factor (g/kg) for each glass type (i).

A_{bi} = fraction by weight of elemental arsenic in the fresh batch for each glass type (i).

W_{bi} = weight (g) of fresh batch melted per kg of glass produced for each glass type (i).

A_{ci} = fraction by weight of elemental arsenic in cullet for each glass type (i).

W_{ci} = weight (g) of cullet melted per kg of glass produced for each glass type (i).

A_{gi} = weight (g) of elemental arsenic per kg glass produced for each glass type (i).

(2) Estimate theoretical uncontrolled arsenic emissions for the 12-month period for each arsenic-containing glass type as follows:

$$Y_i = \frac{(T_i \times G_i)}{10^6}$$

Where:

Y_i = the theoretical uncontrolled arsenic emission estimate for the 12-month period for each glass type (Mg/year).

T_i = the theoretical uncontrolled arsenic emission factor for each type of glass (i) produced during the 12-month period as calculated in paragraph (c)(1) of this section (g/kg).

G_i = the quantity (kg) of each arsenic-containing glass type (i) produced during the 12-month period.

(3) Estimate the total theoretical uncontrolled arsenic emissions for the 12-month period by finding the sum of the values calculated for Y_i in paragraph (c)(2) of this section.

(4) If the value determined in paragraph (c)(3) of this section is equal to or greater than the applicable limit in § 61.162(a)(1) or (b)(1), conduct the emission testing and calculations described in paragraphs (d)(1) through (d)(5) of this section. If the value is less than the applicable limit, the source is in compliance and no emission testing or additional calculations are required.

(d) To demonstrate compliance with § 61.162(a)(1) when 8.0 Mg per year or more of elemental arsenic are added to any existing glass melting furnace, or to demonstrate compliance with § 61.162(b)(1) when 1.0 Mg per year or more of elemental arsenic is added to any new or modified glass melting furnace, an owner or operator shall:

(1) Estimate the theoretical uncontrolled arsenic emissions for each glass type for the 12-month period by performing the calculations described in paragraphs (c)(1) and (c)(2) of this section.

(2) Conducte mission testing to determine the actual uncontrolled arsenic emission rate during production of the arsenic-containing glass type with the highest theoretical uncontrolled arsenic emissions as calculated under paragraph (d)(1) of this section. The owner or operator shall use the following test methods and procedures:

(i) Use Method 108 in Appendix B to this part for determinig the arsenic emission rate (g/h). The emission rate shall equal the arithmetic mean of the results of three 60-minute test runs.

(ii) Use the following methods in Appendix A to 40 CFR Part 60:

(A) Method 1 for sample and velocity traverse.

(B) Method 2 for velocity and volumetric flowrate.

(C) Method 3 for gas analysis.

(D) For sources equipped with positive pressure fabric filters, use Section 4 of Method 5D to determine a suitable sampling location and procedure.

(3) Determine the actual uncontrolled arsenic emission factor (R_a) in grams of elemental arsenic per kilogram of glass produced, as follows:

$$R_a = E_a \div P$$

Where:

R_a = the actual uncontrolled arsenic emission factor (g/kg).

E_a = the actual uncontrolled arsenic emission rate (g/h) from paragraph (d)(2) of this section.

P = the rate of glass production (kg/h), determined by dividing the weight (kg) of glass pulled from the furnace during the emission test by the number of hours (h) taken to perform the test under paragraph (d)(2) of this section.

(4) Calculate a correction factor to relate to the theoretical and the actual uncontrolled arsenic emission factors as follows:

$$F = R_a \div T_i$$

Where:

F = the correction factor.

R_a = the actual uncontrolled arsenic emission factor (g/kg) determined in paragraph (d)(3) of this section.

T_i = the theoretical uncontrolled arsenic emission factor (g/kg) determined in paragraph (c)(1) of this section for the same glass type for which R_a was determined.

(5) Determine the uncontrolled arsenic emission rate for the 12-month period, as follows:

$$U = \frac{\sum_{i=1}^{n} (T_i \times F \times G_i)}{10^6}$$

Where:

U = the uncontrolled arsenic emission rate for the 12-month period (Mg/year).

T_i = the theoretical uncontrolled arsenic emission factor for each arsenic-containing glass type (i) produced during the 12-month period, as calculated in paragraph (c)(1) of this section (g/kg).

F = the correction factor calculated in paragraph (d)(4) of this section.

G_i = the quantity (kg) of each arsenic-containing glass type (i) produced during the 12-month period.

n = the number of arsenic-containing glass types produced during the 12-month period.

(6) If the value determined in paragraph (d)(5) of this section is less than the applicable limit in § 61.162(a)(1) or (b)(1), the source is in compliance.

(e) To demonstrate compliance with § 61.162(a)(2) or (b)(2), an owner or operator shall:

(1) Conduct emission testing to determine the percent reduction of inorganic arsenic emissions being achieved by the control device, using the following test methods and procedures:

(i) Use Method 108 in Appendix B to this part to determine the concentration of arsenic in the gas streams entering and exiting the control device. Conduct three 60-minute test runs, each consisting of simultaneous testing of the inlet and outlet gas streams. The gas streams shall contain all the gas exhausted from the glass melting furnace.

(ii) Use the following methods in Appendix A to 40 CFR Part 60:

(A) Method 1 for sample and velocity traverses.

(B) Method 2 for velocity and volumetric flowrate.

(C) Method 3 for gas analysis.

(D For sources equipped with positive pressure fabric filters, use Section 4 of Method 5D to determine a suitable sampling location and procedure.

(2) Calculate the percent emission reduction for each run as follows:

$$D = \frac{(C_b - C_a) \times 100}{C_b}$$

Where:

D= the percent emission reduction.

C_b= the arsenic concentration of the stack gas entering the control device, as measured by Method 108.

C_a= the arsenic concentration of the stack gas exiting the control device, as measured by Method 108.

(3) Determine the average percent reduction of arsenic by calculating the arithmetic mean of the results for the three runs. If it is at least 85 percent, the source is in compliance.

§ 61.165 Reporting and recordkeeping requirements.

(a) Each owner or operator of a source subject to the requirements of § 61.162 shall maintain at the source for a period of at least 2 years and make available to the Administrator upon request a file of the following records:

(1) All measurements, including continuous monitoring for measurement of opacity, and temperature of gas entering a control device;

(2) Records of emission test data and all calculations used to produce the required reports of emission estimates to demonstrate compliance with § 61.162;

(3) All continous monitoring system performance evaluations, including calibration checks and adjustments;

(4) The occurrence and duration of all startups, shutdowns, and malfunctions of the furnace;

(5) All malfunctions of the air pollution control system;

(6) All periods during which any continuous monitoring system or monitoring device is inoperative;

(7) all records of maintenance and repairs for each air pollution control system, continuous monitoring system, or monitoring device;

(b) Each owner or operator who is given approval by the Administrator to bypass a control device under paragraph (e) of this section shall maintain at the source for a period of at least 2 years and make available to the Administrator upon request a file of the following records:

(1) The dates the control device is bypassed; and

(2) Steps taken to minimize arsenic emissions during the period the control device was bypassed.

(c) Each owner or operator of a source subject to the emission limit in § 61.162(a)(1) or (b)(1) shall determine and record at the end of every 6 months the uncontrolled arsenic emission rate for the preceding and forthcoming 12-month periods. The determinations shall:

(1) Be made by following the procedures in § 61.164(c)(1), (c)(2), and (c)(3); or in § 61.164(d)(5), whichever is applicable; and

(2) Take into account changes in production rates, types of glass produced, and other factors that would affect the uncontrolled arsenic emission rate.

(d) Each owner or operator of a source subject to the provisions of this subpart shall:

(1) Provide the Administrator 30 days prior notice of any emission test required in §61.164 to afford the Administrator the opportunity to have an observer present; and

(2) Submit to the Administrator a written report of the results of the emission test and associated calculations required in § 61.164(d) or (e), as applicable, within 60 days after conducting the test.

(3) Submit to the Administrator a written report of the arsenic emission estimates calculated under § 61.164(c):

(i) Within 45 days after the effective date of this subpart for a source that has an initial startup date preceding the effective date; or

(ii) Within 45 days after startup for a source that has an initial startup date after the effective date.

(4) Submit to the Adminstrator a written report of the uncontrolled arsenic emission rates determined in accordance with paragraph (c) of this section, if:

(i) The emission rate for the preceding 12-month period (or preceding 6-month period for the first 6-month determination) exceeded the applicable limit in § 61.162(a)(1) or (b)(1).

(ii) The emission rate for the forthcoming 12-month period will exceed the applicable limit in § 61.162(a)(1) or (b)(1). In this case, the owner or operator shall also notify the Administrator of the anticipated date of the emission test to demonstrate compliance with the applicable limit in § 61.162(a)(2) or (b)(2).

(5) Ensure that the reports required in paragraph (d)(4) of this section are postmarked by the tenth day following the end of the 6-month reporting period.

(e) To obtain approval to bypass a control device, as provided in § 61.162(c), an owner or operator of a source subject to this subpart may make written application to the Administrator. Each application for such a waiver shall be submitted to the Administrator no later than 60 days before the bypass period would begin and shall include:

(1) Name and address of the owner or operator;

(2) Location of the source;

(3) A brief description of the nature, size, design, and method of operation of the source;

(4) The reason it is necessary to by-pass the control device;

(5) The length of time it will be necessary to by-pass the control device;

(6) Steps that will be taken to minimize arsenic emissions during the period the control device will be by-passed.

(7) The quantity of emissions that would be released while the control device is by-passed if no steps were taken to minimize emissions;

(8) The expected reduction in emissions during the by-pass period due to the steps taken to minimize emissions during this period; and

(9) The type of glass to be produced during the bypass period, and, if applicable, an explanation of why non-arsenic or lower-arsenic-containing glass cannot be melted in the furnace during the bypass period.

(f) Each owner or operator required to install and operate a continuous opacity monitoring system under § 61.163 shall:

(1) Submit a written report to the Administrator of the results of the continuous monitoring system evaluation required under § 61.163(b) within 60 days after conducting the evaluation.

(2) Submit a written report to the Administrator every 6 months if excess opacity occurred during the preceding 6-month period. For purposes of this paragraph, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the opacity level determined under § 61.163(c)(3) or the opacity level redetermined under § 61.163(d).

(3) Ensure that any semiannual report of excess opacity required by paragraph (f)(2) of this section is postmarked by the thirtieth day following the end of the

6-month period and includes the following information:

(i) The magnitude of excess opacity, any conversion factor(s) used, and the date and time of commencement and completion of each occurrence of excess opacity.

(ii) Specific identification of each occurrence of excess opacity that occurs during startups, shutdowns, and malfunctions of the source.

(iii) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

(Approved by the Office of Management and Budget under control number 2060–0043)

3. Part 61 is amended by adding Subpart O as follows:

Subpart O—National Emission Standard for Inorganic Arsenic Emissions from Primary Copper Smelters

§ 61.170 Applicability and designation of source.

The provisions of this subpart are applicable to each copper converter at any new or existing primary copper smelter, except as noted in § 61.172(a).

§ 61.171 Definitions.

All terms used in this subpart shall have the meanings given to them in the Act, in Subpart A of Part 61, and in this section as follows:

"Blowing" means the injection of air or oxygen-enriched air into a molten converter bath.

"Charging" means the addition of a molten or solid material to a copper converter.

"Control device" means the air pollution control equipment used to collect particulate matter emissions.

"Converter arsenic charging rate" means the hourly rate at which arsenic is charged to the copper converters in the copper converter department based on the arsenic content of the copper matte and of any lead matte that is charged to the copper converters.

"Copper converter" means any vessel in which copper matte is charged and is oxidized to copper.

"Copper converter department" means all copper converters at a primary copper smelter.

"Copper matte" means any molten solution of copper and iron sulfides produced by smelting copper sulfide ore concentrates or calcines.

"Holding of a copper converter" means suspending blowing operations while maintaining in a heated state the molten bath in the copper converter.

"Inorganic arsenic" means the oxides and other noncarbon compounds of the element arsenic included in particulate matter, vapors, and aerosols.

"Lead matte" means any molten solution of copper and other metal sulfides produced by reduction of sinter product from the oxidation of lead sulfide ore concentrates.

"Malfunction" means any sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of inorganic arsenic are increased.

"Opacity" means the degree to which emissions reduce the transmission of light.

"Particulate matter" means any finely divided solid or liquid material, other than uncombined water, as measured by the specified reference method.

"Pouring" means the removal of blister copper from the copper converter bath.

"Primary copper smelter" means any installation or intermediate process engaged in the production of copper from copper-bearing materials through the use of pyrometallurgical techniques.

"Primary emission control system" means the hoods, ducts, and control devices used to capture, convey, and collect process emissions.

"Process emissions" means inorganic arsenic emissions from copper converters that are captured directly at the source of generation.

"Secondary emissions" means inorganic arsenic emissions that escape capture by a primary emission control system.

"Secondary hood system" means the equipment (including hoods, ducts, fans, and dampers) used to capture and transport secondary inorganic arsenic emissions.

"Shutdown" means the cessation of operation of a stationary source for any reason.

"Skimming" means the removal of slag from the molten converter bath.

§ 61.172 Standard for new and existing sources.

(a) The provisions of paragraphs (b)–(f) of this section do not apply to any copper converter at a facility where the total arsenic charging rate for the copper converter department averaged over a 1-year period is less than 75 kg/h, as determined under § 61.174(f).

(b) The owner or operator of each copper converter subject to the provisions of this subpart shall reduce inorganic arsenic emissions to the atmosphere by meeting the following design, equipment, work practice, and operational requirements:

(1) Install, operate, and maintain a secondary hood system on each copper converter. Each secondary hood system shall consist of a hood enclosure, air curtain fan(s), exhaust system fan(s), and ductwork that conveys the captured emissions to a control device, and shall meet the following specifications:

(i) The configuration and dimensions of the hood enclosure shall be such that the copper converter mouth, charging ladles, skimming ladles, and any other material transfer vessels used will be housed within the confines or influence of the hood enclosure during each mode of copper converter operation.

(ii) The back of the hood enclosure shall be fully enclosed and sealed against the primary hood. Portions of the side-walls in contact with the copper converter shall be sealed against the converter.

(iii) Openings in the top and front of the hood enclosure to allow for the entry and egress of ladles and crane appartus shall be minimized to the fullest extent practicable.

(iv) The hood enclosure shall be fabricated in such a manner and of materials of sufficient strength to withstand incidental contact with ladles and crane apparatus with no significant damage.

(v) One side-wall of the hood enclosure shall be equipped with a horizontal-slotted plenum along the top, and the opposite side-wall shall be equipped with an exhaust hood. The horizontal-slotted plenum shall be designed to allow the distance from the base to the top of the horizontal slot to be adjustable up to a dimension of 76 mm.

(vi) The horizontal-slotted plenum shall be connected to a fan. When activated, the fan shall push air through the horizontal slot, producing a horizontal air curtain above the copper converter that is directed to the exhaust hood. The fan power output installed shall be sufficient to overcome static pressure losses through the ductwork upstream of the horizontal-slotted plenum and across the plenum, and to deliver at least 22,370 watts (30 air horsepower) at the horizontal-slotted plenum discharge.

(vii) The exhaust hood shall be sized to completely intercept the airstream from the horizontal-slotted plenum combined with the additional airflow resulting from entrainment of the surrounding air. The exhaust hood shall be connected to a fan. When activated, the fan shall pull the combined airstream into the exhaust hood.

(viii) The entire secondary hood system shall be equipped with dampers

and instrumentation, as appropriate, so that the desired air curtain and exhaust flow are maintained during each mode of copper converter operation.

(2) Optimize the capture of secondary inorganic arsenic emissions by operating the copper converter and secondary hood system at all times as follows:

(i) Copper converter.

(A) Increase the air curtain and exhaust flow rates to their optimum conditions prior to raising the primary hood and roiling the copper converter out for charging, skimming, or pouring.

(B) Once rolled out, prior to the commencement of skimming or pouring, hold the copper converter in an idle position until fuming from the molten bath has been minimized.

(C) During skimming, raise the receiving ladle off the ground and position the ladle as close to the copper converter mouth as possible to minimize the drop distance between the converter mouth and the receiving ladle.

(D) Control the rate of flow into the receiving ladle to the extent practicable to minimize fuming.

(E) Upon the completion of each charge, withdraw the charging ladle or vessel used from the confines of the secondary hood in a slow, deliberate manner.

(F) During charging, skimming, or pouring, ensure that the crane block does not disturb the air flow between the horizontal-slotted plenum and the exhaust hood.

(ii) Secondary hood system.

(A) Operate the secondary hood system under conditions that will result in the maximum capture of inorganic arsenic emissions.

(B) Within 30 days after the effective date of this subpart, or within 30 days after the initial operation of each secondary hood system, whichever comes later, provide to the Administrator a list of operating conditions for the secondary hood system that will result in the maximum capture of inorganic arsenic emissions. This list shall specify the operating parameters for the following:

(*1*) The dimensions of the horizontal slot.

(*2*) The velocity of air through the horizontal slot during each mode of converter operation.

(*3*) The distance from the horizontal slot to the exhaust hood.

(*4*) The face velocity at the opening of the exhaust hood during each mode of converter operation.

(C) Operate the secondary hood system under the conditions listed in paragraph (b)(2)(ii)(B) of this section, unless otherwise specified by the Administrator.

(D) Notify the Administrator in writing within 30 days if there is any change in the operating conditions submitted pursuant to the requirements of paragraph (b)(2)(ii)(B) that will result in any reduction in the maximum capture of inorganic arsenic emissions.

(3) Comply with the following inspection and maintenance requirements after installing the secondary hood system required in paragraph (b)(1) of this section:

(i) At least once every month, visually inspect the components of the secondary hood system that are exposed to potential damage from crane and ladle operation, including the hood enclosure, side- and back-wall hood seals, and the horizontal slot.

(ii) Replace or repair any defective or damaged components of the secondary hood system within 30 days after discovering the defective or damaged components.

(c) No owner or operator of a copper converter subject to the provisions of this subpart shall cause or allow to be discharged into the atmosphere any copper converter secondary emissions that exit from a control device and contain particulate matter in excess of 11.6 milligrams per dry standard cubic meter.

(d) The owner or operator of a copper converter subject to the provisions of this subpart shall submit a description of a plan for control of inorganic arsenic emissions from the copper converter and associated air pollution control equipment. This plan shall be submitted within 90 days after the effective date of this subpart, unless a waiver of compliance is granted under § 61.11. If a waiver of compliance is granted, the plan shall be submitted on a date set by the Administrator. Approval of the plan will be granted by the Administrator provided he finds that:

(1) It includes a systematic procedure for identifying malfunctions and for reporting them immediately to smelter supervisory personnel.

(2) It specifies the procedures that will be followed to ensure that equipment or process breakdowns due entirely or in part to poor maintenance or other preventable conditions do not occur.

(3) It specifies the measures that will be taken to ensure compliance with paragraph (b)(2) of this section.

(e) The owner or operator shall implement the plan required under paragraph (d) of this section unless otherwise specified by the Administrator.

(f) At all times, including periods of startup, shutdown, and malfunction, the owner or operator of a copper converter subject to the provisions of this subpart shall operate and maintain the converter and associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions of inorganic arsenic to the atmosphere to the maximum extent practicable. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, inspection of the source, and review of other records.

§ 61.173 Compliance provisions.

(a) The owner or operator of each copper converter to which § 61.172(b)–(f) applies shall demonstrate compliance with the requirements of § 61.172(b)(1) as follows:

(1) The owner or operator of each existing copper converter shall install a secondary hood system to meet the requirements of § 61.172(b)(1) no later than 90 days after the effective date, unless a waiver of compliance has been approved by the Administrator in accordance with § 61.11.

(2) The owner or operator of each new copper converter shall install a secondary hood system to meet the requirements of § 61.172(b)(1) prior to the initial startup of the converter, except that if startup occurs prior to the effective date, the owner or operator shall meet the requirements of § 61.172(b)(1) on the effective date.

§ 61.174 Test methods and procedures.

(a) To determine compliance with § 61.172(c), the owner or operator shall conduct emission tests and reduce the test data in accordance with the test methods and procedures contained in this section unless the Administrator:

(1) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology,

(2) Approves the use of an equivalent method,

(3) Approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance, or

(4) Waives the requirement for emission tests as provided in § 61.13.

(b) The owner or operator shall conduct the emission tests required in paragraph (a) of this section:

(1) After achieving the optimum operating conditions submitted under § 60.172(b)(2)(ii)(B) for the equipment required in § 61.172(b)(1), but no later than 90 days after the effective date of

this subpart in the case of an existing copper converter or a copper converter that has an initial startup date preceding the effective date, or

(2) After achieving the optimum operating conditions submitted under § 60.172(b)(2)(ii)(B) for the equipment required in § 61.172(b)(1), but no later than 90 days after startup in the case of a new copper converter, initial startup of which occurs after the effective date, or

(3) At such other times as may be required by the Administrator under section 114 of the Act.

(c) The owner or operator shall conduct each emission test under representative operating conditions and at sample locations subject to the Administrator's approval, and shall make available to the Administrator such records as may be necessary to determine the conditions of the emission test.

(d) For the purpose of determining compliance with § 61.172(c), the owner or operator shall use reference methods in 40 CFR Part 60, Appendix A, as follows:

(1) Method 5 for the measurement of particulate matter,

(2) Method 1 for sample and velocity traverses,

(3) Method 2 for velocity and volumetric flow rate,

(4) Method 3 for gas analysis, and

(5) Method 4 for stack gas moisture.

(e) For Method 5, the sampling time for each run shall be at least 60 minutes and the minimum sampling volume shall be 0.85 dscm (30 dscf) except that smaller times or volumes when necessitated by process variables or other factors may be approved by the Administrator.

(f) For the purpose of determining applicability under § 61.172(a), the owner or operator shall determine the converter arsenic charging rate as follows:

(1) Collect daily grab samples of copper matte and any lead matte charged to the copper converters.

(2) Each calendar month, from the daily grab samples collected under paragraph (f)(1) of this section, put together a composite copper matte sample and a composite lead matte sample. Analyze the composite samples individually using Method 108A to determine the weight percent of inorganic arsenic contained in each sample.

(3) Calculate the converter arsenic charging rate once per month using the following equation:

$$R_d = \sum_{i=1}^{n} \frac{A_c W_{ci} + A_l W_{li}}{100\ H_c}$$

Where:

R_c is the converter arsenic charging rate (kg/h).

A_c is the monthly average weight percent of arsenic in the copper matte charged during the month (%) as determined under paragraph (f)(2) of this section.

A_l is the monthly average weight percent of arsenic in the lead matte charged during the month (%) as determined under paragraph (f)(2) of this section.

W_{ci} is the total weight of copper matte charged to a copper converter during the month (kg).

W_{li} is the total weight of lead matte charged to a copper converter during the month (kg).

H_c is the total number of hours the copper converter department was in operation during the month (h).

n is the number of copper converters in operation during the month.

(4) Determine an annual arsenic charging rate for the copper converter department once per month by computing the arithmetic average of the 12 monthly converter arsenic charging rate values (R_c) for the preceding 12-month period.

(g) An owner or operator may petition the Administrator for a modified sampling and analysis schedule if analyses performed for the first 12-month period after the effective date show the source to be considerably below the applicability limit prescribed in § 61.172(a).

§ 61.175 Monitoring requirements.

(a) Each owner or operator of a source that is subject to the emission limit specified in § 61.172(c) shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions discharged from the control device according to the following procedures:

(1) Ensure that each system is installed and operational no later than 90 days after the effective date of this subpart for a source that has an initial startup date preceding the effective date; and no later than 90 days after startup for other sources. Verification of the operational status shall, as a minimum, consist of an evaluation of the monitoring system in accordance with the requirements and procedures contained in Performance Specification 1 of Appendix B of 40 CFR Part 60.

(2) Comply with the provisions of § 60.13(d) of 40 CFR Part 60.

(3) Except for system breakdowns, repairs, calibration checks, and zero span adjustments, ensure that each continuous monitoring system is in continuous operation and meets frequency of operation requirements by completing a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period. Each data point shall represent the opacity measured for one cycle of sampling and analysis and shall be expressed as percent opacity.

(b) Except as required in paragraph (c) of this section, calculate 1-hour opacity averages from 360 or more consecutive data points equally spaced over each 1-hour period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(c) No later than 60 days after each continuous opacity monitoring system required in paragraph (a) of this section becomes operational, the owner or operator shall establish a reference opacity level for each monitored emission stream according to the following procedures:

(1) Conduct continuous opacity monitoring over a preplanned period of not less than 36 hours during which the processes and emission control equipment upstream of the monitoring system are operating under representative operating conditions subject to the Administrator's approval. This period shall include the time during which the emission test required by § 61.13 is conducted.

(2) Calculate 6-minute averages of the opacity readings using 36 or more consecutive data points equally spaced over each 6-minute period.

(3) Calculate 1-hour average opacity values using 10 successive 6-minute average opacity values (i.e., calculate a new 1-hour average opacity value every 6 minutes). Determine the highest 1-hour average opacity value observed during the 36-hour preplanned test period.

(4) Calculate the reference opacity level by adding 5 percent opacity to the highest 1-hour average opacity calculated in paragraph (c)(3) of this section.

(d) The owner or operator may redetermine the reference opacity level for the copper converter secondary emission stream at the time of each emission test that demonstrates compliance with the emission limit required in § 61.172(c) according to the provisions of paragraphs (c)(1) through (c)(4) of this section.

(e) With a minimum of 30 days prior notice, the Administrator may require the owner or operator to redetermine the reference opacity level for any monitored emission stream.

(f) Each owner or operator who is required to install the equipment specified in § 61.172(b)(1) for the capture of secondary copper converter emissions shall install, calibrate, maintain, and operate a continuous monitoring device on each secondary hood system for the measurement of the air flow through the horizontal-slotted plenum and through the exhaust hood. Each device shall be installed and operational no later than 90 days after the effective date of this subpart for a source that has an initial startup preceding the effective date; and no later than 90 days after startup for other sources.

(g) Each owner or operator subject to the requirements in paragraph (f) of this section shall establish for each secondary hood system reference air flow rates for the horizontal-slotted plenum and exhaust hood for each mode of converter operation. The reference flow rates shall be established when the equipment is operating under the optimum operating conditions required in § 61.172(b)(2)(ii).

(h) Each owner or operator shall install the continuous monitoring systems and monitoring devices required in paragraphs (a) and (f) of this section in such a manner that representative measurements of emissions and process parameters are obtained.

§ 61.176 Recordkeeping requirements.

(a) Each owner or operator subject to the requirements of § 61.172(b)(1) shall maintain at the source for a period of at least 2 years records of the visual inspections, maintenance, and repairs performed on each secondary hood system as required in § 61.172(b)(3).

(b) Each owner or operator subject to the provisions of § 61.172(c) shall maintain at the source for a period of at least 2 years and make available to the Administrator upon request a file of the following records:

(1) All measurements, including continuous monitoring for measurement of opacity;

(2) Records of emission test data and all calculations used to produce the required reports of emission estimates to demonstrate complaince with § 61.172(c);

(3) All continuous monitoring system performance evaluations, including calibration checks and adjustments;

(4) The occurrence and duration of all startups, shutdowns, and malfunctions of the copper converters;

(5) All malfunctions of the air pollution control system;

(6) All periods during which any continuous monitoring system or device is inoperative;

(7) All maintenance and repairs performed on each air pollution control system, continuous monitoring system, or monitoring device;

(8) All records of 1-hour average opacity levels for each separate control device; and

(9) For each secondary hood system:

(i) The reference flow rates for the horizontal-slotted plenum and exhaust hood for each converter operating mode estabilshed under § 61.175(g);

(ii) The actual flow rates; and

(iii) A daily log of the start time and duration of each converter operating mode.

(c) Each owner or operator subject to the provisions of this subpart shall maintain at the source for a period of at least 2 years and make available to the Administrator upon request the following records:

(1) For each copper converter, a daily record of the amount of copper matte and lead matte charged to the copper converter and the total hours of operation.

(2) For each copper converter department, a monthly record of the weight percent of arsenic contained in the copper matte and lead matte as determined under § 61.174(f).

(3) For each copper converter department, the monthly calculations of the average annual arsenic charging rate for the preceding 12-month period as determined under § 61.174(f).

(Approved by the Office of Management and Budget under control number 2060–0044)

§ 61.177 Reporting requirements.

(a) Each owner or operator subject to the provisions of § 61.172(c) shall:

(1) Provide the Administrator 30 days prior notice of the emission test required in § 61.174(a) to afford the Administrator the opportunity to have an observer present; and

(2) Submit to the Administrator a written report of the results of the emission test required in § 61.174(a) within 60 days after conducting the test.

(b) Each owner or operator subject to the provisions of § 61.175(a) shall provide the Administrator at least 30 days prior notice of each reference opacity level determination required in § 61.175(c) to afford the Administrator the opportunity to have an observer present.

(c) Each owner or opertor subject to the provisions of § 61.175(a) shall submit to the Administrator:

(1) Within 60 days after conducting the evaluation required in § 61.175(a)(1), a written report of the continuous monitoring system evaluation;

(2) Within 30 days after establishing the reference opacity level required in § 61.175(c), a written report of the reference opacity level. The report shall also include the opacity data used and the calculations performed to determine the reference opacity level, and sufficient documentation to show that process and emission control equipment were operating normally during the reference opacity level determination; and

(3) A written report each quarter of each occurrence of excess opacity during the quarter. For purposes of this paragraph, an occurrence of excess opacity is any 1-hour period during which the average opacity, as measured by the continuous monitoring system, exceeds the reference opacity level established under § 61.175(c).

(d) The owner or operator subject to the provisions of § 61.175(g) shall submit to the Administrator:

(1) A written report of the reference air flow rate within 30 days after establishing the reference air flow rates required in § 61.175(g);

(2) A written report each quarter of all air flow rates monitored during the preceding 3-month period that are less than 80 percent of the corresponding reference flow rate established for each converter operating mode; and

(3) A written report each quarter of any changes in the operating conditions of the emission capture system, emission control device, or the building housing the converters that might increase fugitive emissions.

(e) All quarterly reports shall be postmarked by the 30th day following the end of each 3-month period and shall include the following information:

(1) The magnitude of each occurrence of excess opacity, any conversion factor(s) used, and the dates and times of commencement and completion of each occurrence of excess opacity, the cause of each exceedance of the reference opacity level, and the measures taken to minimize emissions.

(2) The magnitude of each occurrence of reduced flow rate and the date and time of commencement and completion of each occurrence of reduced flow rate, the cause of the reduced flow rate, and the associated converter operating mode.

(3) Specific identification of each occurrence of excess opacity or reduced flow rate that occurs during startups, shutdowns, and malfunctions of the source.

(4) The date and time identifying each period during which the continuous

monitoring system or monitoring device was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

(5) Specific identification of each change in operating conditions of the emission capture system or control device, or in the condition of the building housing the converters.

(f) Each owner or operator of a source subject to the provisions of this subpart shall submit annually a written report to the Administrator that includes the monthly computations of the average annual converter arsenic charging rate as calculated under § 61.174(f)(4). The annual report shall be postmarked by the 30th day following the end of each calendar year.

(Approved by the Office of Management and Budget under control number 2060-0044)

4. Part 61 is amended by adding Subpart P as follows:

Subpart P—National Emission Standard for Inorganic Arsenic Emissions From Arsenic Trioxide and Metallic Arsenic Production Facilities

§ 61.180 Applicability and designation of sources.

The provisions of this subpart are applicable to each metallic arsenic production plant and to each arsenic trioxide plant that processes low-grade arsenic bearing materials by a roasting condensation process.

§ 61.181 Definitions.

All terms used in this subpart shall have the meanings given them in the Act, in Subpart A of Part 61, and in this section as follows:

"Arsenic kitchen" means a baffled brick chamber where inorganic arsenic vapors are cooled, condensed, and removed in a solid form.

"Control device" means the air pollution control equipment used to collect particulate matter emissions.

"Curtail" means to cease operations to the extent technically feasible to reduce emissions.

"Inorganic arsenic" means the oxides and other noncarbon compounds of the element arsenic included in particular matter, vapors, and aerosols.

"Malfunction" means any sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of inorganic arsenic are increased.

"Opacity" means the degree to which emissions reduce the transmission of light.

"Primary emission control system" means the hoods, enclosures, ducts, and control devices used to capture, convey, and remove particulate matter from exhaust gases which are captured directly at the source of generation.

"Process emissions" means inorganic arsenic emissions that are captured and collected in a primary emission control system.

"Roasting" means the use of a furnace to heat arsenic plant feed material for the purpose of eliminating a significant portion of the volatile materials contained in the feed.

"Secondary emissions" means inorganic arsenic emissions that escape capture by a primary emission control system.

"Shutdown" means the cessation of operation of a stationary source for any purpose.

§ 61.182 Standard for new and existing sources.

(a) Within 30 days after the effective date of this subpart, the owner or operator of each source to which this subpart applies shall identify and submit to the Administrator a list of potential sources (equipment and operations) of inorganic arsenic emissions.

(b) The owner or operator shall submit a description of an inspection, maintenance, and housekeeping plan for control of inorganic arsenic emissions from the potential sources identified under paragraph (a) of this section. This plan shall be submitted within 90 days after the effective date of this subpart, unless a waiver of compliance is granted under § 61.11. If a waiver of compliance is granted, the plan shall be submitted on a date set by the Administrator. Approval of the plan will be granted by the Administrator provided he finds that:

(1) It achieves the following objectives in a manner that does not cause adverse impacts in other environmental media:

(i) Clean-up and proper disposal, wet-down, or chemical stabilization to the extent practicable (considering access and safety) of any dry, dusty material having an inorganic arsenic content greater than 2 percent that accumulates on any surface within the plant boundaries outside of a dust-tight enclosure.

(ii) Immediate clean-up and proper disposal, wet-down, or chemical stabilization of spills of all dry, dusty material having an inorganic arsenic content greater than 2 percent.

(iii) Minimization of emissions of inorganic arsenic to the atmosphere during removal of inorganic arsenic from the arsenic kitchen and from flue pulling operations by properly handling, wetting down, or chemically stabilizing all dusts and materials handled in these operations.

(2) It includes an inspection program that requires all process, conveying, and air pollution control equipment to be inspected at least once per shift to ensure that the equipment is being properly operated and maintained. The program will specify the evaluation criteria and will use a standardized checklist, which will be included as part of the plan required in paragraph (b) of this section, to document the inspection, maintenance, and housekeeping status of the equipment and that the objectives of paragraph (b)(1) of this section are being achieved.

(3) It includes a systematic procedure for identifying malfunctions and for reporting them immediately to supervisory personnel.

(4) It specifies the procedures that will be followed to ensure that equipment or process malfunctions due entirely or in part to poor maintenance or other preventable conditions do not occur.

(5) It includes a program for curtailing all operations necessary to minimize any increase in emissions of inorganic arsenic to the atmosphere resulting from a malfunction. The program will describe:

(i) The specific steps that will be taken to curtail each operation as soon as technically feasible after the malfunction is discovered.

(ii) The minimum time required to curtail each operation.

(iii) The procedures that will be used to ensure that the curtailment continues until after the malfunction is corrected.

(c) The owner or operator shall implement the plan required in paragraph (b) of this section until otherwise specified by the Administrator.

(d) At all times, including periods of startup, shutdown, and malfunction, the owner or operator of each source to which this subpart applies shall operate and maintain the source including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions of inorganic arsenic to the atmosphere to the maximum extent practicable. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, inspection of the source, and review of other records.

§ 61.183 Emission monitoring.

(a) The owner or operator of each source subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of each arsenic trioxide and metallic arsenic process emission stream that exits from a control device.

(b) The owner or operator shall install, operate, and maintain each continuous monitoring system for the measurement of opacity required in paragraph (a) of this section according to the following procedures:

(1) Ensure that each system is installed and operational no later than 90 days after the effective date of this subpart for an existing source or a new source that has an initial startup date preceding the effective date. For a new source whose initial startup occurs after the effective date of this subpart, ensure that the system is installed and operational no later than 90 days after startup. Verification of the operational status shall, as a minimum, consist of an evaluation of the monitoring system in accordance with the requirements and procedures contained in Performance Specification 1 of Appendix B of 40 CFR Part 60.

(2) Comply with the provisions of § 60.13(d) of 40 CFR Part 60.

(3) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under § 60.13(d), ensure that each continuous monitoring system is in continuous operation and meets frequency of operation requirements by completing a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period. Each data point shall represent the opacity measured for one cycle of sampling and analysis and shall be expressed as percent opacity.

(c) The owner or operator shall calculate 6-minute opacity averages from 36 or more consecutive data points equally spaced over each 6-minute period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(d) No later than 60 days after each continuous opacity monitoring system required in paragraph (a) of this section becomes operational, the owner or operator shall establish a reference opacity level for each monitored emission stream according to the following procedures:

(1) Conduct continuous opacity monitoring over a preplanned period of not less than 36 hours during which the processes and emission control equipment upstream of the monitoring system are operating in a manner that will minimize opacity under representative operating conditions subject to the Administrator's approval.

(2) Calculate 6-minute averages of the opacity readings using 36 or more consecutive data points equally spaced over each 6-minute period.

(3) Establish the reference opacity level by determining the highest 6-minute average opacity calculated under paragraph (d)(2) of this section.

(e) With a minimum of 30 days prior notice, the Administrator may require an owner or operator to redetermine the reference opacity level for any monitored emission stream.

(f) Each owner or operator shall install all continuous monitoring systems or monitoring devices required in paragraph (a) of this section in such a manner that representative measurements of emissions or process parameters are obtained.

§ 61.184 Ambient air monitoring for inorganic arsenic.

(a) The owner or operator of each source to which this subpart applies shall operate a continuous monitoring system for the measurement of inorganic arsenic concentrations in the ambient air.

(b) The ambient air monitors shall be located at sites to detect maximum concentrations of inorganic arsenic in the ambient air in accordance with a plan approved by the Administrator that shall include the sampling and analytical method used.

(c) The owner or operator shall submit a written plan describing, and explaining the basis for, the design and adequacy of the monitoring network, sampling and analytical procedures, and quality assurance within 45 days after the effective date of this subpart.

(d) Each monitor shall be operated continuously except for a reasonable time allowance for instrument maintenance and calibration, for changing filters, or for replacement of equipment needing major repair.

(e) Filters shall be changed daily and shall be analyzed and concentrations calculated within 30 days after filters are collected.

(f) The Administrator at any time may require changes in, or expansion of, the sampling program, including sampling and analytical protocols and network design.

§ 61.185 Recordkeeping requirements.

(a) Each owner or operator of a source subject to the provisions of this subpart shall maintain at the source for a period of at least 2 years the following records: All measurements, including continuous monitoring for measurement of opacity; all continuous monitoring system performance evaluations, including calibration checks and adjustments; all periods during which the continuous monitoring system or monitoring device is inoperative; and all maintenance and repairs made to the continuous monitoring system or monitoring device.

(b) Each owner or operator shall maintain at the source for a period of at least 2 years a log for each plant department in which the operating status of process, conveying, and emission control equipment is described for each shift. For malfunctions and upsets, the following information shall be recorded in the log:

(1) The time of discovery.

(2) A description of the malfunction or upset.

(3) The time corrective action was initiated.

(4) A description of corrective action taken.

(5) The time corrective action was completed.

(6) A description of steps taken to reduce emissions of inorganic arsenic to the atmosphere between the time of discovery and the time corrective action was taken.

(c) Each owner or operator subject to the provisions of this subpart shall maintain for a period of a least 2 years records of 6-minute average opacity levels for each separate control device.

(d) Each owner or operator subject to the provisions of § 61.186 shall maintain for a period of at least 2 years records of ambient inorganic arsenic concentrations at all sampling sites and other data needed to determine such concentrations.

(Approved by the Office of Management and Budget under control number 2060–0042.)

§ 61.186 Reporting requirements.

(a) Each owner or operator subject to the provisions of § 61.183(a) shall provide the Administrator at least 30 days prior notice of each reference opacity level determination required in § 61.183(a) to afford the Administrator the opportunity to have an observer present.

(b) Each owner or operator subject to the provisions of § 61.183(a) shall submit to the Administrator:

(1) Within 60 days of conducting the evaluation required in § 61.183(b)(1), a written report of the continuous monitoring system evaluation;

(2) Within 30 days of establishing the reference opacity level required in § 61.183(d), a written report of the reference opacity level. The report shall also include the opacity data used and the calculations performed to determine the reference opacity level, and sufficient documentation to show that process and emission control equipment were operating normally during the reference opacity level determination; and

(3) A written report each quarter of each occurrence of excess opacity during the quarter. For the purposes of this paragraph, an occurrence of excess opacity is any 6-minute period during which the average opacity, as measured by the continuous monitoring system, exceeds the reference opacity level established under § 61.183(d).

(c) All quarterly reports of excess opacity shall be postmarked by the 30th day following the end of each quarter and shall include the following information:

(1) The magnitude of excess opacity, any conversion factor(s) used, and the dates and times of commencement and completion of each occurrence of excess opacity, the cause of each exceedance of the reference opacity level, and the measures taken to minimize emissions.

(2) Specific identification of each period of excess opacity that occurred during startups, shutdowns, and malfunctions of the source.

(3) The date and time identifying each period during which the continuous monitoring system or monitoring device was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

(d) Each owner or operator subject to this subpart shall submit a written report semiannually to the Administrator that describes the status and results, for the reporting period, of any pilot plant studies on alternative arsenic trioxide production processes. Conclusions and recommendations of the studies shall also be reported.

(e) All semiannual progress reports required in paragraph (d) of this section shall be postmarked by the 30th day following the end of each 6-month period.

(f) Each owner or operator of a source to which this subpart applies shall submit a written report each quarter to the Administrator that includes the following information:

(1) All ambient inorganic arsenic concentrations measured at all monitoring sites in accordance with § 61.184.

(2) A description of any modifications to the sampling network, during the reporting period, including any major maintenance, site changes, calibrations, and quality assurance information including sampling and analytical precision and accuracy estimates.

(g) All quarterly reports required in paragraph (f) of this section shall be postmarked by the 30th day following the end of each quarter.

(Approved by the Office of Management and Budget under control number 2060–0042)

Appendix B—[Amended]

5. Part 61 is amended by adding Method 108 to Appendix B as follows:

* * * * *

Method 108—Determination of Particulate and Gaseous Arsenic Emissions

1. Applicability and Principle

1.1 Applicability. This method applies to the determination of inorganic arsenic (As) emissions from stationary sources as specified in the applicable subpart.

1.2 Principle. Particulate and gaseous arsenic emissions are withdrawn isokinetically from the source and collected on a glass mat filter and in water. The collected arsenic is then analyzed by means of atomic absorption spectrophotometry.

2. Apparatus

2.1 Sampling Train. A schematic of the sampling train is shown in Figure 108–1; it is similar to the Method 5 train of 40 CFR Part 60, Appendix A. NOTE: This and all subsequent references to other methods refer to the methods in 40 CFR Part 60, Appendix A. The sampling train consists of the following components:

2.1.1 Probe Nozzle, Probe Liner, Pitot Tube, Differential Pressure Gauge, Filter Holder, Filter Heating System, Metering System, Barometer, and Gas Density Determination Equipment. Same as Method 5, Sections 2.1.1 to 2.1.6 and 2.1.8 to 2.1.10, respectively.

2.1.2 Filter Heating System. Any heating (or cooling) system capable of maintaining a sample gas temperature at the exit end of the filter holder during sampling at 121 ± 14°C (250 ± 25°F). Install a temperature gauge capable of measuring temperature to within 3°C (5.4°F) at the exit end of the filter holder so that the sample gas temperature can be regulated and monitored during sampling. The tester may use systems other than the one shown in APTD–0591.

2.1.3 Impingers. Four impingers connected in series with leak-free ground-glass fittings or any similar leak-free noncontaminating fittings. For the first, third, and fourth impingers, use the Greenburg-Smith design, modified by replacing the tip with a 1.3-cm-ID (0.5 in.) glass tube extending to about 1.3 cm (0.5 in.) from the bottom of the flask. For the second impinger, use the Greenburg-Smith design with the standard tip. The tester may use modifications (e.g., flexible connections between the impingers, materials other than glass, or flexible vacuum lines to connect the filter holder to the condenser), subject to the approval of the Administrator.

Place a thermometer, capable of measuring temperature to within 1°C (2°F), at the outlet of the fourth impinger for monitoring purposes.

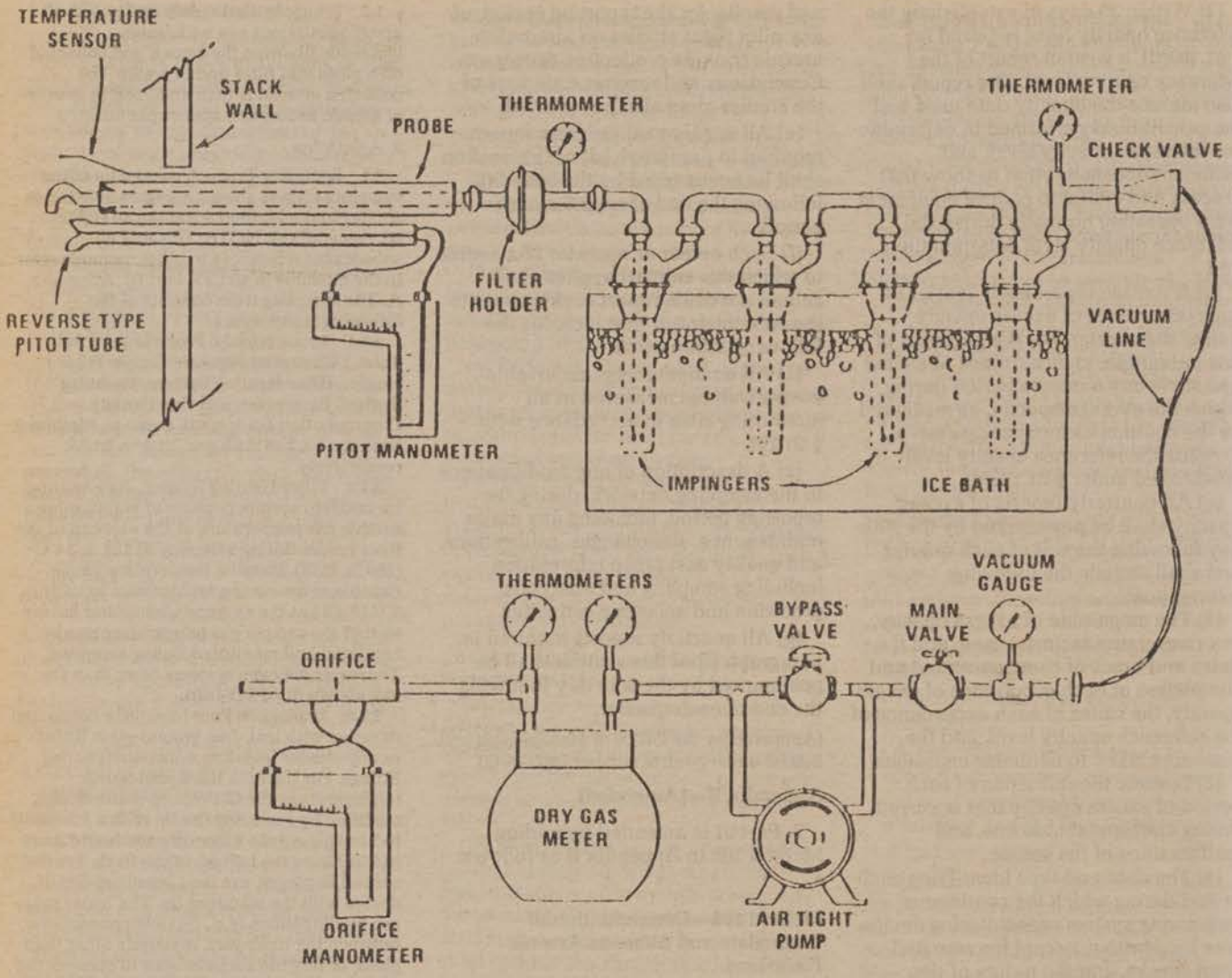

Figure 108-1. Arsenic sampling train.

2.2 Sample Recovery. The following items are needed:

2.2.1 Probe-Liner and Probe-Nozzle Brushes, Petri Dishes, Graduated Cylinder or Balance, Plastic Storage Containers, Rubber Policeman, and Funnel. Same as Method 5, Sections 2.2.1 and 2.2.4 to 2.2.8, respectively.

2.2.2 Wash Bottles. Polyethylene (2).

2.2.3 Sample Storage Containers. Chemically resistant, polyethylene or polypropylene for glassware washes, 500- or 1000-ml.

2.3 Analysis. The following equipment is needed:

2.3.1 Spectrophotometer. Equipped with an electrodeless discharge lamp and a background corrector to measure absorbance at 193.7 nm. For measuring samples having less than 10 μg As/ml, use a vapor generator accessory or a graphite furnace.

2.3.2 Recorder. To match the output of the spectrophotometer.

2.3.3 Beakers. 150-ml.

2.3.4 Volumetric Flasks. Glass 50-, 100-, 200-, 500-, and 1000-ml; and polypropylene, 50-ml.

2.3.5 Balance. To measure within 0.5 g.

2.3.6 Volumetric Pipets. 1-, 2-, 3-, 5-, 8-, and 10-ml.

2.3.7 Oven.

2.3.8 Hot Plate.

3. Reagents

Unless otherwise specified, use American Chemical Society reagent grade (or equivalent) chemicals throughout.

3.1 Sampling. The reagents used in sampling are as follows:

3.1.1 Filters. Same as Method 5 except that the filters need not be unreactive to SO_2.

3.1.2 Silica Gel, Crushed Ice, and Stopcock Grease. Same as Method 5, Sections 3.1.2, 3.1.4, and 3.1.5, respectively.

3.1.3 Water. Deionized distilled to meet American Society for Testing and Materials Specification D 1133–74, Type 3 (incorporated by reference—see § 60.17). When high concentrations of organic matter are not expected to be present, the analyst may omit the $KMnO_4$ test for oxidizable organic matter.

3.2 Sample Recovery. 0.1 N sodium hydroxide (NaOH) is required. Dissolve 4.00 g of NaOH in about 500 ml of water in a 1-liter volumetric flask. Then, dilute to exactly 1.0 liter with water.

3.3 Analysis. The reagents needed for analysis are as follows:

3.3.1 Water. Same as 3.1.2.

3.3.2 Sodium Hydroxide, 0.1 N. Same as 3.2.

3.3.3 Sodium Borohydride ($NaBH_4$), 5 Percent (W/V). Dissolve 5.00 g of $NaBH_4$ in about 500 ml of 0.1 N NaOH in a 1-liter volumetric flask. Then, dilute to exactly 1.0 liter with 0.1 N NaOH.

3.3.4 Hydrochloric Acid (HCl), Concentrated.

3.3.5 Potassium Iodine (KI), 30 Percent (W/V). Dissolve 300 g of KI in 500 ml of water in a 1-liter volumetric flask. Then, dilute to exactly 1.0 liter with water.

3.3.6 Nitric Acid (HNO_3), Concentrated.

3.3.7 Nitric Acid, 0.8 N. Dilute 52 ml of concentrated HNO_3 to exactly 1.0 liter with water.

3.3.8 Nitric Acid, 50 Percent (V/V). Add 50 ml concentrated HNO_3 to 50 ml water.

3.3.9 Stock Arsenic Standard, 1 mg As/ml. Dissolve 1.3203 g of primary standard grade As_2O_3 in 20 ml of 0.1 N NaOH in a 150-ml beaker. Slowly add 30 ml of concentrated HNO_3. Heat the resulting solution and evaporate just to dryness. Transfer the residue quantitatively to a 1-liter volumetric flask and dilute to 1.0 liter with water.

3.3.10 Arsenic Working Solution, 1.0 μg As/ml. Pipet exactly 1.0 ml of stock arsenic standard into an acid-cleaned, appropriately labeled 1-liter volumetric flask containing about 500 ml of water and 5 ml of concentrated HNO_3. Dilute to exactly 1.0 liter with water.

3.3.11 Air. Suitsble quality for atomic absorption analysis.

3.3.12 Acetylene. Suitable quality for atomic absorption analysis.

3.3.13 Nickel Nitrate, 5 Percent (W/V). Dissolve 24.780 g of nickel nitrate hexahydrate in water in a 100-ml volumetric flask and dilute to 100 ml with water.

3.3.14 Nickel Nitrate, 1 Percent (W/V). Pipet 20 ml of 5 percent nickel nitrate solution into a 100-ml volumetric flask and dilute to exactly 100 ml with water.

3.3.15 Hydrogen Peroxide, 3 Percent. Pipet 50 ml of 30 percent hydrogen peroxide into a 500 ml volumetric flask and dilute to exactly 500 ml with water.

3.3.16 Quality Assurance Audit Samples. Arsenic samples prepared by the Environmental Protection Agency's (EPA) Environmental Systems Laboratory, Quality Assurance Division, Source Branch, Mail Drop 77A, Research Triangle Park, North Carolina 27711. Each set will consist of two vials of unknown concentrations. Only when making compliance determinations, obtain an audit sample set from the Quality Assurance Management Office at each EPA regional office or the responsible enforcement office. (NOTE: The tester should notify the Quality Assurance Office or the responsible enforcement agency at least 30 days prior to the test date to allow sufficient time for delivery.)

4. Procedure

4.1 Sampling. Because of the complexity of this method, testers must be trained and experienced with the test procedures in order to obtain reliable results.

4.1.1 Pretest Preparation. Follow the general procedure given in Method 5, Section 4.1.1, except the filter need not be weighed.

4.1.2 Preliminary Determinations. Follow the general procedure given in Method 5, Section 4.1.2, except select the nozzle size to maintain isokinetic sampling rates below 28 liters/min (1.0 cfm).

4.1.3 Preparation of Collection Train. Follow the general procedure given in Method 5, Section 4.1.3.

4.1.4 Leak-Check Procedures. Follow the leak-check procedures given in Method 5, Sections 4.1.4.1 (Pretest Leak-Check), 4.1.4.2 (Leak-Checks During Sample Run), and 4.1.4.3 (Post-Test Leak-Check).

4.1.5 Arsenic Train Operation. Follow the general procedure given in Method 5, Section 4.1.5, except maintain a temperature of 107° to 135°C (225° to 275°F) around the filter and maintain isokinetic sampling flow rates below 28 liters/min (1.0 cfm). For each run, record the data required on a data sheet such as the one shown in Figure 108–2.

4.1.6 Calculation of Percent Isokinetic. Same as Method 5, Section 4.1.6.

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PLANT _____

LOCATION _____

OPERATOR _____

DATE _____

RUN NO. _____

SAMPLE BOX NO. _____

METER BOX NO. _____

METER ΔH@ _____

C FACTOR _____

PITOT TUBE COEFFICIENT, C_p _____

SCHEMATIC OF STACK CROSS SECTION

AMBIENT TEMPERATURE _____

BAROMETRIC PRESSURE _____

ASSUMED MOISTURE, % _____

PROBE LENGTH, m (ft) _____

NOZZLE IDENTIFICATION NO. _____

AVERAGE CALIBRATED NOZZLE DIAMETER, cm (in.) _____

PROBE HEATER SETTING _____

LEAK RATE, m^3/min. (cfm) _____

PROBE LINER MATERIAL _____

TRAVERSE POINT NUMBER	SAMPLING TIME (θ), min.	STATIC PRESSURE mm Hg (in Hg)	STACK TEMPERATURE (T_S) °C (°F)	VELOCITY HEAD (ΔP_S), mm(in.)H_2O	PRESSURE DIFFERENTIAL ACROSS ORIFICE METER mm H_2O (in. H_2O)	GAS SAMPLE VOLUME m^3 (ft^3)	GAS SAMPLE TEMPERATURE AT DRY GAS METER		FILTER HOLDER TEMPERATURE, °C (°F)	TEMPERATURE OF GAS LEAVING CONDENSER OR LAST IMPINGER, °C (°F)
							INLET °C (°F)	OUTLET °C (°F)		
TOTAL							Avg.	Avg.		
AVERAGE							Avg.			

Figure 108-2. Arsenic field data.

BILLING CODE 6560-50-C

4.2 Sample Recovery. The same as Method 5, Section 4.2 except that 0.1 N NaOH is used as the cleanup solvent instead of acetone and that the impinger water is treated as follows:

Container Number 4 (Impinger Water). Clean each of the first two impingers and connecting glassware in the following manner:

a. Wipe the impinger ball joints free of silicone grease, and cap the joints.

b. Weigh the impinger and liquid to within ±0.5 g. Record in the log the weight of liquid along with a notation of any color or film observed in the impinger catch. The weight of liquid is needed along with the silica gel data to calculate the stack gas moisture content.

c. Rotate and agitate each impinger, using the impinger contents as a rinse solution.

d. Transfer the liquid to Container Number 4. Remove the outlet ball-joint cap, and drain the contents through this opening. Do not separate the impinger parts (inner and outer tubes) while transferring their contents to the cylinder.

e. (Note: In Steps e and f below, measure and record the total amount of 0.1 N NaOH used for rinsing.) Pour approximately 30 ml of 0.1 NaOH into each of the first two impingers, and agitate the impingers. Drain the 0.1 N NaOH through the outlet arm of each impinger into Container Number 4. Repeat this operation a second time; inspect the impingers for any abnormal conditions.

f. Wipe the ball joints of the glassware connecting the impingers and the back half of the filter holder free of silicone grease, and rinse each piece of glassware twice with 0.1 N NaOH; transfer this rinse into Container Number 4. (DO NOT RINSE or brush the glass-fritted filter support.) Mark the height of the fluid level to determine whether leakage occurs during transport. Label the container to identify clearly its contents.

4.2.1 Blanks. Save a portion of the 0.1 N NaOH used for cleanup as a blank. Take 200 ml of this solution directly from the wash bottle being used and place it in a plastic sample container labeled "NaOH blank." Also save a sample of the water, and place it in a container labeled "H_2O blank."

4.3 Arsenic Sample Preparation.

4.3.1 Container Number 1 (Filter). Place the filter and loose particulate matter in a 150-ml beaker. Also, add the filtered material from Container Number 2 (see Section 4.3.3). Add 50 ml of 0.1 N NaOH. Then stir and warm on a hot plate at low heat (do not boil) for about 15 minutes. Add 10 ml of concentrated HNO_3, bring to a boil, then simmer for about 15 minutes. Filter the solution through a glass fiber filter. Wash with hot water, and catch the filtrate in a clean 150-ml beaker. Boil the filtrate, and evaporate to dryness. Cool, add 5 ml of 50 percent HNO_3, and then warm and stir. Allow to cool. Transfer to a 50-ml volumetric flask, dilute to volume with water, and mix well.

4.3.2 Container Number 4 (Arsenic Impinger Sample).

Note: Prior to analysis, check the liquid level in Containers Number 2 and Number 4; confirm as to whether leakage occurred during transport on the analysis sheet. If a noticeable amount of leakage occurred, either void the sample or take steps, subject to the approval of the Administrator, to adjust the final results.

Transfer the contents of Container Number 4 to a 500-ml volumetric flask, and dilute to exactly 500 ml with water. Pipet 50 ml of the solution into a 150-ml beaker. Add 10 ml of concentrated HNO_3, bring to a boil, and evaporate to dryness. Allow to cool, add 5 ml of 50 percent HNO_3, and then warm and stir. Allow the solution to cool, transfer to a 50-ml volumetric flask, dilute to volume with water, and mix well.

4.3.3 Container Number 2 (Probe Wash). See note in 4.3.2 above. Filter (using a glass fiber filter) the contents of Container Number 2 into a 200-ml volumetric flask. Combine the filtered material with the contents of Container Number 1 (Filter).

Dilute the filtrate to exactly 200 ml with water. Then pipet 50 ml into a 150-ml beaker. Add 10 ml of concentrated HNO_3, bring to a boil, and evaporate to dryness. Allow to cool, add 5 ml of 50 percent HNO_3, and then warm and stir. Allow the solution to cool, transfer to a 50-ml volumetric flask, dilute to volume with water, and mix well.

4.3.4 Filter Blank. Determine a filter blank using two filters from each lot of filters used in the sampling. Cut each filter into strips, and treat each filter individually as directed in Section 4.3.1, beginning with the sentence, "Add 50 ml of 0.1 N NaOH."

4.3.5 0.1 N NaOH and Water Blanks. Treat separately 50 ml of 0.1 N NaOH and 50 ml water, as directed under Section 4.3.2, beginning with the sentence, "Pipet 50 ml of the solution into a 150-ml beaker."

4.4 Spectrophotometer Preparation. Turn on the power; set the wavelength, slit width, and lamp current; and adjust the background corrector as instructed by the manufacturer's manual for the particular atomic absorption spectrophotometer. Adjust the burner and flame characteristics as necessary.

4.5 Analysis.

4.5.1 Arsenic Determination. Prepare standard solutions as directed under Section 5.1, and measure their absorbances against 0.8 N HNO_3. Then, determine the absorbances of the filter blank and each sample using 0.8 N HNO_3 as a reference. If the sample concentration falls outside the range of the calibration curve, make an appropriate dilution with 0.8 N HNO_3 so that the final concentration falls within the range of the curve. Determine the arsenic concentration in the filter blank (i.e., the average of the two blank values from each lot). Next, using the appropriate standard curve, determine the arsenic concentration in each sample fraction.

4.5.1.1 Arsenic Determination at Low Concentration. The lower limit of flame atomic absorption spectrophotometry is 10 μg As/ml. If the arsenic concentration of any sample is at a lower level, use the graphite furnace or vapor generator which is available as an accessory component. The analyst also has the option of using either of these accessories for samples whose concentrations are between 10 and 30 μg/ml. Follow the manufacturer's instructions in the use of such equipment.

4.5.1.1.1 Vapor Generator Procedure. Place a sample containing between 0 and 5 μg of arsenic in the reaction tube, and dilute to 15 ml with water. Since there is some trial and error involved in this procedure, it may be necessary to screen the samples by conventional atomic absorption until an approximate concentration is determined. After determining the approximate concentration, adjust the volume of the sample accordingly. Pipet 15 ml of concentrated HCl into each tube. Add 1 ml of 30 percent KI solution. Place the reaction tube into a 50°C water bath for 5 minutes. Cool to room temperature. Connect the reaction tube to the vapor generator assembly. When the instrument response has returned to baseline, inject 5.0 ml of 5 percent $NaBH_4$, and integrate the resulting spectrophotometer signal over a 30-second time period.

4.5.1.1.2 Graphite Furnace Procedure. Dilute the digested sample so that a 5-ml aliquot contains less than 1.5 μg of arsenic. Pipet 5 ml of this digested solution into a 10-ml volumetric flask. Add 1 ml of the 1 percent nickel nitrate solution, 0.5 ml of 50 percent HNO_3, and 1 ml of the 3 percent hydrogen peroxide and dilute to 10 ml with water. The sample is now ready to inject in the furnace for analysis.

Because instruments from different manufacturers are different, no detailed operating instructions will be given here. Instead, the analyst should follow the instructions provided with his particular instrument.

4.5.1.2 Check for Matrix Effects on the Arsenic Results. Same as Method 12, Section 5.4.2.

4.5.2 Container Number 3 (Silica Gel). The tester may conduct this step in the field. Weigh the spent silica gel (or silica gel plus impinger) to the nearest 0.5 g; record this weight.

4.6 Audit Analysis. Concurrently, analyze the two unknown audit samples with each set of compliance samples to evaluate the techniques of the analyst and the standards preparation. (Note: It is recommended that known quality control samples be analyzed prior to the compliance and audit sample analysis to optimize the system's accuracy and precision. One source of these samples is the Source Branch listed in Section 3.3.16.) The same analyst, analytical reagents, and analytical system shall be used both for each set or sets of compliance samples and the EPA audit samples; if this condition is met, audit samples need not be included with any additional compliance analyses performed within the succeeding 30-day period for the same enforcement agency. An audit sample set may not be used to validate different sets of compliance samples under the jurisdiction of different enforcement agencies unless prior arrangements are made with both enforcement agencies.

Calculate the concentration in g/m^3 using the specified sample volume in the audit instructions. (Note: The analyst may determine immediately whether the audit analyses acceptable by reporting the audit results in g/m^3 and compliance results in μg/ml by telephone). Include the results of both audit samples, their identification numbers, and the analysts' names with the results of the compliance determination samples in appropriate reports to the EPA regional office

or the appropriate enforcement agency. Include this information with subsequent compliance analyses for the same enforcement agency during the succeeding 30-day period.

5. Calibration

Maintain a laboratory log of all calibrations.

5.1 Standard Solutions. For the high level procedure pipet 1, 3, 5, 8, and 10 ml of the 1.0-mg As/ml stock solution into separate 100-ml volumetic flasks, each containing a ml of concentrated HNO_3. If the low level vapor generator procedure is used, pipet 1, 2, 3, and 5 ml of 1.0 μg As/ml standard solution into the separate reaction tubes. For the low level graphite furnace procedure, pipet 1, 5, 10 and 15 ml of 1.0 μg As/ml standard solution into the separate flasks along with 2 ml of the 5 percent nickel nitrate solution and 10 ml of the 3 percent hydrogen peroxide solution. Dilute to the mark with water. Then treat the standards in the same manner as the samples (Section 4.5).

Check these absorbances frequently against 0.8 N HNO_3 (reagent blank) during the analysis to insure that base-line drift has not occurred. Prepare a standard curve of absorbance versus concentration. (Note: For instruments equipped with direct concentration readout devices, preparation of a standard curve will not be necessary.) In all cases, follow calibration and operational procedures in the manufacturers' instruction manual.

5.2 Sampling Train Calibration. Calibrate the sampling train components according to the indicated Sections of Method 5: Probe Nozzle (Section 5.1), Pitot Tube Assembly (Section 5.2), Metering System (Section 5.3), Probe Heater (Section 5.4), Temperature Gauges (Section 5.5), Leak Check of Metering System (Section 5.6), and Barometer (Section 5.7).

6. Calculations

6.1 Nomenclature—

B_{ws} = Water in the gas stream, proportion by volume.
C_a = Concentration of arsenic as read from the standard curve, μg/ml.
C_c = Actual audit concentration, g/m³.
C_d = Determined audit concentration, g/m³.
C_s = Arsenic concentration in stack gas, dry basis, converted to standard conditions, g/dsm³ (g/dscf).
E_a = Arsenic mass emission rate, g/hr.
F_d = Dilution factor (equals 1 if the sample has not been diluted).
I = Percent of isokinetic sampling.
m_{bi} = Total mass of all four impingers and contents before sampling, g.
m_{fi} = Total mass of all four impingers and contents after sampling, g.
m_n = Total mass of arsenic collected in a specific part of the sampling train, μg.
m_t = Total mass of arsenic collected in the sampling train, μg.
T_m = Absolute average dry gas meter temperature (see Figure 108-2), °K (°R).
V_m = Volume of gas sample as measured by the dry gas meter, dm³ (dcf).
$V_{m(std)}$ = Volume of gas sample as measured by the dry gas meter correlated to standard conditions, sm³ (scf).
V_n = Volume of solution in which the arsenic is contained, ml.
$V_{w(std)}$ = Volume of water vapor collected in the sampling train, corrected to standard conditions, sm³ (scf).
ΔH = Average pressure differential across the orifice meter (see Figure 108-2), mm H_2O (in. H_2O).

6.2 Average dry gas meter temperatures (T_m) and average orifice pressure drop (ΔH). See data sheet (Figure 108-2).

6.3 Dry Gas Volume. Using data from this test, calculate $V_{m(std)}$ by using Eq. 5-1 of Method 5. If necessary, adjust the volume for leakages.

6.4 Volume of Water Vapor.

$$V_{w(std)} = K_1 (m_{fi} - m_{bi}) \qquad \text{Eq. 108-1}$$

Where:

$K_1 = 0.001334$ m³/g for metric units.
$= 0.047012$ ft³/g for English units.

6.5 Moisture Content.

$$B_{ws} = \frac{V_{w(std)}}{V_{m(std)} + V_{w(std)}} \qquad \text{Eq. 108-2}$$

6.6 Amount of arsenic collected.

6.6.1 Calculate the amount of arsenic collected in each part of sampling train, as follows:

$$m_n = C_a F_d V_n \qquad \text{Eq. 108-3}$$

6.6.2 Calculate the total amount of arsenic collected in the sampling train as follows:

$$m_t = m_n(\text{filters}) + m_n(\text{probe}) + m_n(\text{impingers}) - m_n(\text{filter blank}) - m_n(\text{NaOH}) - m_n(H_2O) \qquad \text{Eq. 108-4}$$

6.7 Calculate the arsenic concentration in the stack gas (dry basis, adjusted to standard conditions) as follows:

$$C_s = K_2 (m_t / V_{m(std)}) \qquad \text{Eq. 108-5}$$

Where:

$K_2 = 10^{-6}$ g/μg

6.8 Pollutant Mass Rate. Calculate the arsenic mass emission rate using the following equation.

$$E_a = C_s Q_{sd} \qquad \text{Eq. 108-6}$$

The volumetric flow rate, Q_{sd}, should be calculated as indicated in Method 2.

6.9 Isokinetic Variation. Using data from this test, calculate I. Use Eq. 5-8 of Method 5.

6.10 Acceptable Results. Same as Method 5, Section 6.12.

6.11 Relative Error (RE) for QA Audits, Percent.

$$RE = \frac{C_d - C_c}{C_c} \times 100 \qquad \text{Eq. 108-7}$$

7. Bibliography

1. Same as Citations 1 through 9 of Section 7, of Method 5.

2. Perkin Elmer Corporation. Analytical Methods for Atomic Absorption Spectrophotometry. 303-0152. Norwalk, Connecticut. September 1976. pp. 5-6.

3. Standard Specification for Reagent Water. In: Annual Book of American Society for Testing and Materials Standards. Part 31: Water, Atmospheric Analysis. American Society for Testing and Materials. Philadelphia, PA. 1974. pp. 40-42.

6. Part 61 is amended by adding Method 108A to Appendix B as follows:

* * * * *

Method 108A—Determination of Arsenic Content in Ore Samples From Nonferrous Smelters

1. Applicability and Principle

1.1 Applicability. This method applies to the determination of inorganic arsenic (As) content of process ore and reverberatory matte samples from nonferrous smelters and other sources as specified in the regulations.

1.2 Principle. Arsenic bound in ore samples is liberated by acid digestion and analyzed by atomic absorption spectrophotometry.

2. Apparatus

2.1 Sample Preparation

2.1.1 Parr Acid Digestion Bomb. Stainless steel with vapor-tight Teflon cup and cover.

2.1.2 Volumetric Pipets. 2- and 5-ml sizes.

2.1.3 Volumetric Flask. 50-ml polypropylene with screw caps, (one needed per standard).

2.1.4 Funnel. Polyethylene or polypropylene.

2.1.5 Oven. Capable of maintaining a temperature of approximately 105°C.

2.1.6 Analytical Balance. To measure to within 0.1 mg.

2.2 Analysis.

2.2.1 Spectrophotometer and Recorder. Equipped with an electrodeless discharge lamp and a background corrector to measure absorbance at 193.7 nm. A graphite furnace may be used in place of the vapor generator accessory when measuring samples with low As levels. The recorder shall match the output of the spectrophotometer.

2.2.2 Volumetric Flasks. Class A, 50-ml (one needed per sample and blank).

2.2.3 Volumetric Pipets. Class A, 1-, 5-, 10-, and 25-ml sizes.

3. Reagents

Unless otherwise specified, use ACS reagent grade (or equivalent) chemicals throughout.

3.1 Sample Preparation.

3.1.1 Water. Deionized distilled to meet American Society for Testing and Materials Specification D-1193-74, Type 3 (incorporated by reference—See § 60.7). When high concentrations of organic matter are not expected to be present, the analyst may omit the $KI nO_4$ test for oxidizable organic matter. Use in all dilutions requiring water.

3.1.2 Nitric Acid (HNO_3), Concentrated. HANDLE WITH CAUTION.

3.1.3 Nitric Acid, 0.5 N. In a 1-liter volumetric flask containing water, add 32 ml of concentrated HNO_3 and dilute to volume with water.

3.1.4 Hydrofluoric Acid (HF), Concentrated. HANDLE WITH CAUTION.

3.1.5 Potassium Chloride (KCl) Solution, 10 percent (w/v). Dissolve 10 g KCl in water, add 3 ml concentrated HNO_3, and dilute to 100 ml.

3.1.6 Filter. Teflon filters, 3 micron porosity, 47mm size. (Available from

Millipore Co., type FS, Catalog Number FSLW04700.)

3.1.7 Sodium Borohydride ($NaBH_4$), 5 Percent (W/V). Dissolve 5.00 g of $NaBH_4$ in about 500 ml of 0.1 NaOH in a 1-liter volumetric flask. Then, dilute to exactly 1.0 liter with 0.1 NaOH.

3.1.8 Nickel Nitrate, 5 Percent (W/V). Dissolve 24.780 g of nickel nitrate hexahydrate in water in a 100-ml volumetric flask and dilute to 100 ml with water.

3.1.9 Nickel Nitrate, 1 percent (W/V). Pipet 20 ml of 5 percent nickel nitrate solution into a 100-ml volumetric flask and dilute to 100 ml with water.

3.2 Analysis.

3.2.1 Water. Same as in Section 3.1.1.

3.2.2 Sodium Hydroxide (NaOH), 0.1 N. Dissolve 2.00 g of NaOH in water in a 500-ml volumetric flask. Dilute to volume with water.

3.2.3 Nitric Acid, 0.5 N. Same as in Section 3.1.3.

3.2.4 Potassium Chloride Solution, 10 percent. Same as in Section 3.1.5.

3.2.5 Stock Arsenic Standard, 1 mg As/ml. Dissolve 1.320 g of primary grade As_2O_3 in 20 ml of 0.1 N NaOH. Slowly add 30 ml of concentrated HNO_3, and heat in an oven at 105°C for 2 hours. Allow to cool, and dilute to 1 liter with deionized distilled water.

3.2.6 Nitrous Oxide. Suitable quality for atomic absorption analysis.

3.2.7 Acetylene. Suitable quality for atomic absorption analysis.

3.2.8 Quality Assurance Audit Samples. Arsenic samples prepared by the Environmental Protection Agency's (EPA) Environmental Systems Laboratory, Quality Assurance Division, Source Branch, Mail Drop 77A, Research Triangle Park, North Carolina 27711. Each set will consist of two vials of unknown concentrations. Only when making compliance determinations, obtain an audit sample set from the Quality Assurance Management Office at each EPA regional office or the responsible enforcement office. (NOTE: The tester should notify the Quality Assurance Office or the responsible enforcement agency at least 30 days prior to the test date to allow sufficient time for delivery.

4. Procedure

4.1 Sample Collection. A sample that is representative of the ore lot to be tested must be taken prior to analysis. The sample must be ground into a finely pulverized state. (A portion of the samples routinely collected for metals analysis may be used provided the sample is representative of the ore being tested.)

4.2 Sample Preparation. Weigh 50 to 500 mg of finely pulverized sample to the nearest 0.1 mg. Transfer the sample into the Teflon cup of the digestion bomb, and add 2 ml each of concentrated HNO_3 and HF. Seal the bomb immediately to prevent the loss of any volatile arsenic compounds that may form. Heat in an oven 105° C for 2 hours. Then remove the bomb from the oven and allow it to cool. Using a Teflon filter, quantitatively filter the digested sample into a 50-ml polypropylene volumetric flask. Rinse the bomb three times with small portions of 0.5 N HNO_3, and filter the rinses into the flask. Add 5 ml of KCl solution to the flask, and dilute to 50 ml with 0.5 N HNO_3.

4.3 Spectrophotometer Preparation. Turn on the power; set the wavelength, slit width, and lamp current; and adjust the background corrector as instructed by the manufacturer's manual for the particular atomic absorption spectrophotometer. Adjust the burner and flame characteristics as necessary.

4.4 Preparation of Standard Solutions. Pipet 1, 5, 10, and 25 ml of the stock As solution into separate 100-ml volumetric flasks. Add 10 ml KCl solution and dilute to the mark with 0.5 N HNO_3. This will give standard concentrations of 10, 50, 100, and 250 μg As/ml. For low-level-arsenic samples that require the use of a graphite furnace or vapor generator, follow the procedures in Section 4.4.1.

Dilute 10 ml of KCl solution to 100 ml with 0.5 N HNO_3 and use as a reagent blank. Measure the standard absorbances against the reagent blank. Check these absorbances frequently against the blank during the analysis to assure that baseline drift has not occurred.

Prepare a standard curve of absorbance versus concentration. (Note: For instruments equipped with direct concentration readout devices, preparation of a standard curve will not be necessary.) In all cases follow calibration and operational procedures in the manufacturer's instruction manual. Maintain a laboratory log of all calibrations.

4.4.1 Arsenic Determination at Low Concentration. The lower limit of flame atomic absorption spectrophotometry is 10 μg As/ml. If the arsenic concentration of any sample is at a lower level, use the vapor generator or graphite furnace which is available as an accessory component. Follow the manufacturer's instructions in the use of such equipment.

4.4.1.1 Vapor Generator Procedure. Place a sample containing between 0 and 5 μg of arsenic in the reaction tube, and dilute to 15 ml with water. Since there is some trial and error involved in this procedure, it may be necessary to screen the samples by conventional atomic absorption until an approximate concentration is determined. After determining the approximate concentration, adjust the volume of the sample accordingly. Pipet 15 ml of concentrated HCl into each tube. Add 1 ml of 30 percent KI solution. Place the reaction tube into a 50° C water bath for 5 minutes. Cool to room temperature. Connect the reaction tube to the vapor generator assembly. When the instrument response has returned to baseline, inject 5.0 ml of 5 percent $NaBH_4$ and integrate the resulting spectrophotometer signal over a 30-second time period.

4.4.1.2 Graphite Furnace Procedure. Pipet 5 ml of this digested solution into a 10-ml volumetric flask. Add 1 ml of the 1 percent nickel nitrate solution, 0.5 ml of 50 percent HNO_3, and 1 ml of the 3 percent hydrogen peroxide and dilute to 10 ml with water. The sample is now ready to inject in the furnace for analysis.

Because instruments from different manufacturers are different, no detailed operating instructions are given here. Instead, the analyst should follow the instructions provided with the particular instrument.

4.5 Analysis.

4.5.1 Arsenic Determination. Determine the absorbance of each sample using the blank as a reference. If the sample concentration falls outside the range of the calibration curve, make an appropriate dilution with 0.5 N HNO_3 so that the final concentration falls within the range of the curve. From the curve, determine the As concentration in each sample.

4.5.2 Mandatory Check for Matrix Effects on the Arsenic Results. Same as in Method 12, Section 5.4.2.

4.5.3 Audit analysis. With each set or sets of source compliance samples, analyze the two unknown audit samples in the same manner as the source samples to evaluate the techniques of the analyst and the standards preparation. The same analyst, analytical reagents, and analytical system shall be used both for each set or sets of compliance samples and the EPA audit samples; if this condition is met, it is not necessary to analyze additional audit samples for subsequent compliance analyses performed for the same enforcement agency within a 30-day period. An audit sample set may not be used to validate different sets of compliance samples under the jurisdiction of different enforcement agencies unless prior arrangements are made with both enforcement agencies.

Calculate the concentration in g/m^3 using the specified sample volume in the audit instructions. (Note: The acceptability of the analyses of the audit samples may be obtained immediately by reporting the audit and compliance results by telephone). Include the results of both audit samples, their identification numbers, and the analysts' names with the results of the compliance determination samples in appropriate reports to the EPA regional office or the appropriate enforcement agency. Include this information with subsequent compliance analyses for the same enforcement agency during the succeeding 30-day period.

5. Calculations

5.1 Calculate the percent arsenic in the ore sample as follows:

$$\%\ AS = \frac{5\ C_a\ F_d}{W} \qquad \text{Eq. 108A-1}$$

Where:

C_a = Concentration of As as read from the standard curve, μg/ml.
F_d = Dilution factor (equals 1 if the sample has not been diluted).
W = Weight of ore sample analyzed.
5 = 50-ml sample x $100/10^3$ μg/ml.

6. Bibliography

1. Same as Citations 1 through 9 of Section 7, of Method 5.

2. Perkin Elmer Corporation. Analytical methods of Atomic Absorption Spectrophotometry. 303–0152. Norwalk, Connecticut. September 1976. pp 5–6.

3. Ringwald, D. (TRW). Arsenic Determination on Process Materials from ASARCO's Copper Smelter in Tacoma, Washington. Unpublished Report. Prepared for Emission Measurement Branch, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711. August 1980. 35 p.

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Part III

Nuclear Regulatory Commission

10 CFR Part 50

Safety Goals for the Operations of Nuclear Power Plants; Policy Statement

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Safety Goals for the Operations of Nuclear Power Plants; Policy Statement

AGENCY: Nuclear Regulatory Commission.

ACTION: Policy statement.

SUMMARY: This policy statement focuses on the risks to the public from nuclear power plant operation. Its objective is to establish goals that broadly define an acceptable level of radiological risk. In developing the policy statement, the NRC sponsored two public workshops during 1981, obtained public comments and held four public meetings during 1982, conducted a 2-year evaluation during 1983 to 1985, and received the views of its Advisory Commission on Reactor Safeguards.

The Commission has established two qualitative safety goals which are supported by two quantitative objectives. These two supporting objectives are based on the principle that nuclear risks should not be a significant addition to other societal risks. The Commission wants to make clear that no death attributable to nuclear power plant operation will ever be "acceptable" in the sense that the Commission would regard it as a routine or permissible event. The Commission is discussing acceptable risks, not acceptable deaths.

• The *qualitative safety goals* are as follows:

—Individual members of the public should be provided a level of protection from the consequences of nuclear power plant operation such that individuals bear no significant additional risk to life and health.

—Societal risks to life and health from nuclear power plant operation should be comparable to or less than the risks of generating electricity by viable competing technologies and should not be a significant addition to other societal risks.

• The following *quantitative objectives* are to be used in determining achievement of the above safety goals:

—The risk to an average individual in the vicinity of a nuclear power plant of prompt fatalities that might result from reactor accidents should not exceed one-tenth of one percent (0.1 percent) of the sum of prompt fatality risks resulting from other accidents to which members of the U.S. population are generally exposed.

—The risk to the population in the area near a nuclear power plant of cancer fatalities that might result from nuclear power plant operation should not exceed one-tenth of one percent (0.1 percent) of the sum of cancer fatality risks resulting from all other causes.

EFFECTIVE DATE: August 4, 1986.

FOR FURTHER INFORMATION CONTACT: Merrill Taylor, Regional Operations and Generic Requirements Staff, Office of the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone (301/492–4356).

SUPPLEMENTARY INFORMATION: The following presents the Commission's Final Policy Statement on Safety Goals for the Operation of Nuclear Power Plants:

I. Introduction

A. Purpose and Scope

In its response to the recommendations of the President's Commission on the Accident at Three Mile Island, the Nuclear Regulatory Commission (NRC) stated that it was "prepared to move forward with an explicit policy statement on safety philosophy and the role of safety-cost tradeoffs in the NRC safety decisions." This policy statement is the result.

Current regulatory practices are believed to ensure that the basic statutory requirement, adequate protection of the public, is met. Nevertheless, current practices could be improved to provide a better means for testing the adequacy of and need for current and proposed regulatory requirements. The Commission believes that such improvement could lead to a more coherent and consistent regulation of nuclear power plants, a more predictable regulatory process, a public understanding of the regulatory criteria that the NRC applies, and public confidence in the safety of operating plants. This statement of NRC safety policy expresses the Commission's views on the level of risks to public health and safety that the industry should strive for in its nuclear power plants.

This policy statement focuses on the risks to the public from nuclear power plant operation. These are the risks from release of radioactive materials from the reactor to the environment from normal operations as well as from accidents. The Commission will refer to these risks as the risks of nuclear power plant operation. The risks from the nuclear fuel cycle are not included in the safety goals.

These fuel cycle risks have been considered in their own right and determined to be quite small. They will continue to receive careful consideration. The possible effects of sabotage or diversion on nuclear material are also not presently included in the safety goals. At present there is no basis on which to provide a measure of risk on these matters. It is the Commission's intention that everything is needed will be done to keep these types of risks at their present very low level; and it is the Commission's expectation that efforts on this point will continue to be successful. With these exceptions, it is the Commission's intent that the risks from all the various initiating mechanisms be taken into account to the best of the capability of current evaluation techniques.

In the evaluation of nuclear power plant operation, the staff considers several types of releases. Current NRC practice addresses the risks to the public resulting from operating nuclear power plants. Before a nuclear power plant is licensed to operate, NRC prepares an environmental impact assessment which includes an evaluation of the radiological impacts of routine operation of the plant and accidents on the population in the region around the plant site. The assessment undergoes public comment and may be extensively probed in adjudicatory hearings. For all plants licensed to operate, NRC has found that there will be no measurable radiological impact on any member of the public from routine operation of the plant. (Reference: NRC staff calculations of radiological impact on humans contained in Final Environmental Statements for specific nuclear power plants; e.g., NUREG–0779, NUREG–0812, and NUREG–0854.)

The objective of the Commission's policy statement is to establish goals that broadly define an acceptable level of radiological risk that might be imposed on the public as a result of nuclear power plant operation. While this policy statement includes the risks of normal operation, as well as accidents, the Commission believes that because of compliance with Federal Radiation Council (FRC) guidance, (40 CFR Part 190), and NRC's regulations (10 CFR Part 20 and Appendix I to Part 50), the risks from routine emissions are small compared to the safety goals. Therefore, the Commission believes that these risks need not be routinely analyzed on a case-by-case basis in order to demonstrate conformance with the safety goals.

B. Development of This Statement of Safety Policy

In developing the policy statement, the Commission solicited and benefited from the information and suggestions provided by workshop discussions. NRC-sponsored workshops were held in Palo Alto, California, on April 1–3, 1981 and in Harpers Ferry, West Virginia, on July 23–24, 1981. The first workshop addressed general issues involved in developing safety goals. The second workshop focused on a discussion paper which presented proposed safety goals. Both workshops featured discussions among knowledgeable persons drawn from industry, public interest groups, universities, and elsewhere, who represented a broad range of perspectives and disciplines.

The NRC Office of Policy Evaluation submitted to the Commission for its consideration a Discussion Paper on Safety Goals for Nuclear Power Plants in November 1981 and a revised safety goal report in July 1982.

The Commission also took into consideration the comments and suggestions received from the public in response to the proposed Policy Statement on "Safety Goals for Nuclear Power Plants." published on February 17, 1982 (47 FR 7023). Following public comment, a revised Policy Statement was issued on March 14, 1983 (48 FR 10772) and a 2-year evaluation period began.

The Commission used the staff report and its recommendations that resulted from the 2-year evaluation of safety goals in developing this final Policy Statement. Additionally, the Commission had benefit of further comments from its Advisory Committee on Reactor Safeguards (ACRS) and by senior NRC management.

Based on the results of this information, the Commission has determined that the qualitative safety goals will remain unchanged from its March 1983 revised policy statement, and the Commission adopts these as its safety goals for the operation of nuclear power plants.

II. Qualitative Safety Goals

The Commission has decided to adopt qualitative safety goals that are supported by quantitative health effects objectives for use in the regulatory decisionmaking process. The Commission's first qualitative safety goal is that the risk from nuclear power plant operation should not be a significant contributor to a person's risk of accidental death or injury. The intent is to require such a level of safety that individuals living or working near nuclear power plants should be able to go about their daily lives without special concern by virtue of their proximity to these plants. Thus, the Commission's first safety goal is—

Individual members of the public should be provided a level of protection from the consequences of nuclear power plant operation such that individuals bear no significant additional risk to life and health.

Even though protection of individual members of the public inherently provides substantial societal protection, the Commission also decided that a limit should be placed on the societal risks posed by nuclear power plant operation. The Commission also believes that the risks of nuclear power plant operation should be comparable to or less than the risks from other viable means of generating the same quantity of electrical energy. Thus, the Commission's second safety goals is—

Societal risks to life and health from nuclear power plant operation should be comparable to or less than the risks of generating electricity by viable competing technologies and should not be a significant addition to other societal risks.

The broad spectrum of expert opinion on the risks posed by electrical generation by coal and the absence of authoritative data make it impractical to calibrate nuclear safety goals by comparing them with coal risks based on what we know today. However, the Commission has established the quantitative health effects objectives in such a way that nuclear risks are not a significant addition to other societal risks.

Severe core damage accidents can lead to more serious accidents with the potential for life-threatening offsite release of radiation, for evacuation of members of the public, and for contamination of public property. Apart from their health and safety consequences, severe core damage accidents can erode public confidence in the safety of nuclear power and can lead to further instability and unpredictability for the industry. In order to avoid these adverse consequences, the Commission intends to continue to pursue a regulatory program that has as its objective providing reasonable assurance, while giving appropriate consideration to the uncertainties involved, that a severe core damage accident will not occur at a U.S. nuclear power plants.

III. Quantitative Objectives Used To Gauge Achievement of The Safety Goals

A. General Considerations

The quantitative health effects objectives establish NRC guidance for public protection which nuclear plant designers and operators should strive to achieve. A key element in formulating a qualitative safety goal whose achievement is measured by quantitative health effects objectives is to understand both the strengths and limitations of the techniques by which one judges whether the qualitative safety goal has been met.

A major step forward in the development and refinement of accident risk quantification was taken in the Reactor Safety Study (WASH–1400) completed in 1975. The objective of the Study was "to try to reach some meaningful conclusions about the risk of nuclear accidents." The Study did not directly address the question of what level of risk from nuclear accidents was acceptable.

Since the completion of the Reactor Safety Study, further progress in developing probabilistic risk assessment and in accumulating relevant data have led to a recognition that it is feasible to begin to use quantitative safety objectives for limited purposes. However, because of the sizable uncertainties still present in the methods and the gaps in the data base—essential elements need to gauge whether the objectives have been achieved—the quantitative objectives should be viewed as aiming points or numerical benchmarks of performance. In particular, because of the present limitations in the state of the art of quantitatively estimating risks, the quantitative health effects objectives are not a substitute for existing regulations.

The Commission recognizes the importance of mitigating the consequences of a core-melt accident and continues to emphasize features such as containment, siting in less populated areas, and emergency planning as integral parts of the defense-in-depth concept associated with its accident prevention and mitigation philosophy.

B. Quantitative Risk Objectives

The Commission wants to make clear at the beginning of this section that no death attributable to nuclear power plant operation will ever be "acceptable" in the sense that the Commission would regard it as a routine or permissible event. We are discussing acceptable risks, not acceptable deaths. In any fatal accident, a course of

conduct posing an acceptable risk at one moment results in an unacceptable death moments later. This is true whether one speaks of driving, swimming, flying or generating electricity from coal. Each of these activities poses a calculable risk to society and to individuals. Some of those who accept the risk (or are part of a society that accepts risk) do not survive it. We intend that no such accidents will occur, but the possibility cannot be entirely eliminated. Furthermore, individual and societal risks from nuclear power plants are generally estimated to be considerably less than the risk that society is now exposed to from each of the other activities mentioned above.

C. Health Effects—Prompt and Latent Cancer Mortality Risks

The Commission has decided to adopt the following two health effects as the quantitative objectives concerning mortality risks to be used in determining achievement of the qualitative safety goals—

- The risk to an average individual in the vicinity of a nuclear power plant of prompt fatalities that might result from reactor accidents should not exceed one-tenth of one percent (0.1 percent) of the sum of prompt fatality risks resulting from other accidents to which members of the U.S. population are generally exposed.
- The risk to the population in the area near a nuclear power plant of cancer fatalities that might result from nuclear power plant operation should not exceed one-tenth of one percent (0.1 percent) of the sum of cancer fatality risks resulting from all other causes.

The Commission believes that this ratio of 0.1 percent appropriately reflects both of the qualitative goals—to provide that individuals and society bear no significant additional risk. However, this does not necessarily mean that an additional risk that exceed 0.1 percent would by itself constitute a significant additional risk. The 0.1 percent ratio to other risks is low enough to support an expectation that people living or working near nuclear power plants would have no special concern due to the plant's proximity.

The average individual in the vicinity of the plant is defined as the average individual biologically (in terms of age and other risk factors) and locationally who resides within a mile from the plant site boundary. This means that the average individual is found by accumulating the estimated individual risks and dividing by the number of individuals residing in the vicinity of the plant.

In applying the objective for individual risk of prompt fatality, the Commission has defined the vicinity as the area within 1 mile of the nuclear power plant site boundary, since calculations of the consequences of major reactor accidents suggest that individuals within a mile of the plant site boundary would generally be subject to the greatest risk of prompt death attributable to radiological causes. If there are no individuals residing within a mile of the plant boundary, an individual should, for evaluation purposes, be assumed to reside 1 mile from the site boundary.

In applying the objective for cancer fatalities as a population guideline for individuals in the area near the plant, the Commission has defined the population generally considered subject to significant risk as the population within 10 miles of the plant site. The bulk of significant exposures of the population to radiation would be concentrated within this distance, and thus this is the appropriate population for comparison with cancer fatality risks from all other causes. This objective would ensure that the estimated increase in the risk of delayed cancer fatalities from all potential radiation releases at a typical plant would be no more than a small fraction of the year-to-year normal variation in the expected cancer deaths from nonnuclear causes. Moreover, the prompt fatality objective for protecting individuals generally provides even greater protection to the population as a whole. That is, if the quantitiative objective for prompt fatality is met for individuals in the immediate vicinity of the plant, the estimated risk of delayed cancer fatality to persons within 10 miles of the plant and beyond would generally be much lower than the quantitative objective for cancer fatality. Thus, compliance with the prompt fatality objective applied to individuals close to the plant would generally mean that the aggregate estimated societal risk would be a number of times lower than it would be if compliance with just the objective applied to the population as a whole were involved. The distance for averaging the cancer fatality risk was taken as 50 miles in the 1983 policy statement. The change to 10 miles could be viewed to provide additional protection to individuals in the vicinity of the plant, although analyses indicate that this objective for cancer fatality will not be the controlling one. It also provides more representative societal protection, since the risk to the people beyond 10 miles will be less than the risk to the people within 10 miles.

IV. Treatment of Uncertainties

The Commission is aware that uncertainties are not caused by use of quantitative methodology in decisionmaking but are merely highlighted through use of the quantification process. Confidence in the use of probabilistic and risk assessment techniques has steadily improved since the time these were used in the Reactor Safety Study. In fact, through use of quantitative techniques, important uncertainties have been and continue to be brought into better focus and may even be reduced compared to those that would remain with sole reliance on deterministic decisionmaking. To the extent practicable, the Commission intends to ensure that the quantitative techniques used for regulatory decisionmaking take into account the potential uncertainties that exist so that an estimate can be made on the confidence level to be ascribed to the quantitative results.

The Commission has adopted the use of mean estimates for purposes of implementing the quantitative objectives of this safety goal policy (i.e., the mortality risk objectives). Use of the mean estimates comports with the customary practices for cost-benefit analyses and it is the correct usage for purposes of the mortality risk comparisons. Use of mean estmates does not however resolve the need to quantify (to the extent reasonable) and understand those important uncertainties involved in the reactor accident risk predictions. A number of uncertainties (e.g., thermal-hydraulic assumptions and the phenomenology of core-melt progression, fission product release and transport, and containment loads and performance) arise because of a direct lack of severe accident experience or knowledge of accident phenomenology along with data related to probability distributions.

In such a situation, it is necessary that proper attention be given not only to the range of uncertainty surrounding probabilistic estimates, but also to the phenomenology that most influences the uncertainties. For this reason, sensitivity studies should be performed to determine those uncertainties most important to the probabilistic estimates. The results of sensitivity of studies should be displayed showing, for example, the range of variation together with the underlying science or engineering assumptions that dominate this variation. Depending on the decision needs, the probabilistic results should also be reasonably balanced and supported through use of deterministic

arguments. In this way, judgements can be made by the decisionmaker about the degree of confidence to be given to these estimates and assumptions. This is a key part of the process of determining the degree of regulatory conservatism that may be warranted for particular decisions. This defense-in-depth approach is expected to continue to ensure the protection of public health and safety.

V. Guidelines For Regulatory Implementation

The Commission approves use of the qualitative safety goal, including use of the quantitative health effects objectives in the regulatory decisionmaking process. The Commission recognizes that the safety goal can provide a useful tool by which the adequacy of regulations or regulatory decisions regarding changes to the regulations can be judged. Likewise, the safety goals could be of benefit in the much more difficult task of assessing whether existing plants, designed, constructed and operated to comply with past and current regulations, conform adequately with the intent of the safety goal policy.

However, in order to do this, the staff will require specific guidelines to use as a basis for determining whether a level of safety ascribed to a plant is consistent with the safety goal policy. As a separate matter, the Commission intends to review and approve guidance to the staff regarding such determinations. It is currently envisioned that this guidance would address matters such as plant performance guidelines, indicators for operational performance, and guidelines for conduct of cost-benefit analyses. This guidance would be derived from additional studies conducted by the staff and resulting in recommendations to the Commission. The guidence would be based on the following general performance guideline which is proposed by the Commission for further staff examination—

Consistent with the traditional defense-in-depth approach and the accident mitigation philosophy requiring reliable performance of containment systems, the overall mean frequency of a large release of radioactive materials to the environment from a reactor accident should be less than 1 in 1,000,000 per year of reactor operation.

To provide adequate protection of the public health and safety, current NRC regulations require conservatism in design, construction, testing, operation and maintenance of nuclear power plants. A defense-in-depth approach has been mandated in order to prevent accidents from happening and to mitigate their consequences. Sitting in less populated areas in emphasized. Furthermore, emergency response capabilities are mandated to provide additional defense-in-depth protection to the surrounding population.

These safety goals and these implementation guidelines are not meant as a substitute for NRC's regulations and do not relieve nuclear power plant permittees and licensees from complying with regulations. Nor are the safety goals and these implementation guidelines in and of themselves meant to serve as a sole basis for licensing decisions. However, if pursuant to these guidelines, information is developed that is applicable to a particular licensing decision, it may be considered as one factor in the licensing decision.

The additional views of Commissioner Asselstine and the separate views of Commissioner Bernthal are attached.

Dated at Washington, DC, this 30th day of July 1986.

For the Nuclear Regulatory Commission.

Lando W. Zech, Jr.,

Chairman.

Additional Views by Commissioner Asselstine on the Safety Goal Policy Statement

The commercial nuclear power industry started rather slowly and cautiously in the early 1960's. By the late 1960's and early 1970's the growth of the industry reached a feverish pace. New orders were coming in for regulatory review on almost a weekly basis. The result was the designs of the plants outpaced operational experience and the development of safety standards. As experience was gained in operational characteristics and in safety reviews, safety standards were developed or modified with a general trend toward stricter requirements. Thus, in the early 1970's, the industry demanded to know "how safe is safe enough." In this Safety Goal Policy Statement, the Commission is reaching a first attempt at answering the question. Much credit should go to Chairman Palladino's efforts over the past 5 years to develop this policy statement. I approve this policy statement but believe it needs to go further. There are four additional aspects which should have been addressed by the policy statement.

Containment Performance

First, I believe the Commission should have developed a policy on the relative emphasis to be given to accident prevention and accident mitigation. Such guidance is necessary to ensure that the principle of defense-in-depth is maintained. The Commission's Advisory Committee on Reactor Safeguards has repeatedly urged the Commission to do so. As a step in that direction, I offered for Commission consideration the following containment performance criterion:

> In order to assure a proper balance between accident prevention and accident mitigation, the mean frequency of containment failure in the event of a severe core damage accident should be less than 1 in 100 severe core damage accidents.

Since the Chernobyl accident, the nuclear industry has been trying to distance itself from the Chernobyl accident on the basis of the expected performance of the containments around the U.S. power reactors. Unfortunately, the industry and the Commission are unwilling to commit to a level of performance for the containments.

The argument has been made that we do not know how to develop containment performance criteria (accident mitigation) because core meltdown phenomena and containment response thereto are very complex and involve substantial uncertainties. On the other hand, to measure how close a plant comes to the quantitative guidelines contained in this policy statement and to perform analyses required by the Commission's backfit rule, one must perform just those kinds of analyses. I find these positions inconsistent.

The other argument against a containment performance criterion is that such a standard would overspecify the safety goal. However, a containment performance objective is an element of ensuring that the principle of defense-in-depth is maintained. Since we cannot rule out core meltdown accidents in the foreseeable future, given the current level of safety, I believe it unwise not to establish an expectation on the performance of the final barrier to a substantial release of radioactive materials to the environment, given a core meltdown.

General Performance Guideline

While I have previously supported an objective of reducing the risks to a low as reasonably achievable level, the general performance guideline articulated in this policy (i.e., ". . . the overall mean frequency of a large release of radioactive materials to the environment from a reactor accident should be less than 1 in 1,000,000 per year of reactor operation.") is a suitable compromise. I believe it is an objective that is consistent with the recommendations of the Commission's chief safety officer and our Director of

Research, and past urgings of the Advisory Committee on Reactor Safeguards. Unfortunately, the Commission stopped short of adopting this guideline as a performance objective in the policy statement, but I am encouraged that the Commission is willing at least to examine the possibility of adopting it. Achieving such a standard coupled with the containment performance objective given above would go a long way toward ensuring that the operating reactors successfully complete their useful lives and that the nuclear option remains a viable component of the nation's energy mix.

In addition to preferring adoption of this standard now, I also believe the Commission needs to define a "large release" of radioactive materials. I would have defined it as "a release that would result in a whole body dose of 5 rem to an individual located at the site boundary." This would be consistent with the EPA's emergency planning Protective Action Guidelines and with the level proposed by the NRC staff for defining an Extraordinary Nuclear Occurrence under the Price-Anderson Act. In adopting such a definition, the Commission would be saying that its objective is to ensure that there is no more than a 1 in 1,000,000 chance per year that the public would have to be evacuated from the vicinity of a nuclear reactor and that the waiver of defenses provisions of the Price-Anderson Act would be invoked. I believe this to be an appropriate objective in ensuring that there is no undue risk to the public health and safety associated with nuclear power.

Cost-Benefit Analyses

I believe it is long overdue for the Commission to decide the appropriate way to conduct cost-benefit analyses. The Commission's own regulations require these analyses, which play a substantial role in the decisionmaking on whether to improve safety. Yet, the Commission continues to postpone addressing this fundamental issue.

Future Reactors

In my view, this safety goal policy statement has been developed with a steady eye on the apparent level of safety already achieved by most of operating reactors. That level has been arrived at by a piecemeal approach to designing, constructing and upgrading of the plants over the years as experience was gained with the plants and as the results of required research became available. Given the performance of the current generation of plants, I believe a safety goal for these plants is not good enough for the future. This policy statement should have had a separate goal that would require substantially better plants for the next generation. To argue that the level of safety achieved by plant designs that are over 10 years old is good enough for the next generation is to have little faith in the ingenuity of engineers and in the potential for nuclear technology. I would have required the next generation of plants to be substantially safer than the currently operating plants.

Separate Views of Commissioner Bernthal on Safety Goals Policy

I do not disapprove of what has been said in this policy statement, but too much remains unsaid. The public is understandably desirous of reassurance since Chernobyl; the NRC staff needs clear guidance to carry out its responsibilities to assure public health and safety; the nuclear industry needs to plan for the future. All want and deserve to see clear, unambiguous, practical safety objectives that provide the Commission's answer to the question, "How safe is safe enough?" at U.S. nuclear power plants. The question remains unanswered.

It is unrealistic for the Commission to expect that society, for the foreseeable future, will judge nuclear power by the same standard as it all other risks. The issue today is not so much calculated risk; the issue is public acceptance and, consistent with the intent of Congress, preservation of the nuclear option.

In these early decades of nuclear power, TMI-style incidents must be rendered so rare that we would expect to recount such an event only to our grandchildren. For today's population of reactors, that implies a probability for severe core damage of 10^{-4} per reactor year; for the longer term, it implies something better. I see this as a straightforward policy conclusion that every newspaper editor in the country understands only too well. If the Commission fails to set (and realize) this objective, then the nuclear option will cease to be credible before the end of the century. In other words, if TMI-style events were to occur with 10–15 year regularity, public acceptance of nuclear power would almost certainly fail.

And while the Commission's primary charge is to protect public health and safety, it is also the clear intent of Congress that the Commission, if possible, regulate in a way that preserves rather than jeopardizes the nuclear options. So, for example, if the Commission were to find 100 percent confidence in some impervious containment design, but ignored what was inside the containment, the primary mandate would be satisfied, but in all likelihood, the second would not. Consistent with the Commission's long-standing defense-in-dept philosophy, both core-melt and containment performance criteria should therefore be clearly stated parts of the Commission's safety goals.

In short, this pudding lacks a theme. Meaningful assurance to the public; substantive guidance to the NRC staff; the regulatory path to the future for the industry—all these should be provided by plainly stating that, consistent with the Commission's "defense-in-depth" philosophy:

(1) Severe core-damage accidents should not be expected, on average, to occur in the U.S. more than once in 100 years;

(2) Containment performance at nuclear power plants should be such that severe accidents with substantial offsite damages are not expected, on average, to occur in the U.S. more than once in 1,000 years;

(3) The goal for offsite consequences should be expected to be met after conservative consideration of the uncertainties associated with the estimated frequency of severe core-damage and the estimated mitigation thereof by containment.[1]

The term "substantial offsite damages" would correspond to the Commission's legal definition of "extraordinary nuclear occurrence." "Conservative consideration of associated uncertainties" should offer at least 90 percent confidence (typical good engineering judgment, I would hope) that the offsite release goal is met.

The broad core-melt and offsite-release goals should be met "for the average power plant"; i.e., for the aggregate of U.S. power plants. The decision to fix or not to fix a specific plant would then depend on achieving "the goal for offsite consequences." As a practical matter, this offsite societal risk objective would (and should) be significantly dependent on site-specific population density.

The absence of such explicit population density considerations in the Commission's 0.1 percent goals for offsite consequences deserves careful thought. Is it reasonable that Zion and

[1] Interestingly enough, the Commission has adopted proposed goals similar to the above core-melt and containment performance objectives—without clearly saying so. Taken together, the Commissions's: (1) 0.1 percent offsite prompt fatality goals; (2) proposed 10^{-6} per-reactor-year "large offsite release" criterion; (3) commitment "to provide reasonable assurance . . . that a severe core-damage accident will not occur at a U.S. nuclear power plant," though they may be ill-defined, can be read to be more stringent than the plainly stated criteria suggested above.

Palo Verde, for example, be assigned the same theoretical "standard person" risk, even though they pose considerably different risks for the U.S. population as a whole? As they stand, these 0.1 percent goals do not explicitly include population density considerations; a power plant could be located in Central Park and still meet the Commission's quantitative offsite release standard.

I believe the Commission's standards should preserve the important principle that site-specific population density be quantitatively considered in formulating the Commission's societal risk objective; e.g., by requiring that for the *entire* U.S. population, the risk of fatal injury as a consequence of U.S. nuclear power plant operations should not exceed some appropriate specified fraction of the sum of the expected risk of fatality from all other hazards to which members of the U.S. population are generally exposed.

I am further concerned by the arbitrary nature of the 0.1 percent incremental "societal" health risk standard adopted by the Commission, a concept grounded in a purely subjective assessment of what the public might accept. The Commission should seriously consider a more rational standard, tied statistically to the average variations in natural exposure to radiation from all other sources.

Finally, as noted in its introductory comments, the Commission long ago committed to "move forward with an explicit policy statement on safety philosophy and the role of safety-cost tradeoffs in NRC safety decisions." While this policy statement may not be very "explicit", as discussed above, it contains nothing at all on the subject of " 'safety-cost' tradeoffs in NRC safety decisions." For example, *is* $1,000 per person-rem an appropriate cost-benefit standard for NRC regulatory action? While I have long argued that such fundamental decisions are more rightly the responsibility of Congress, the NRC staff continues to use its own ad-hoc judgment in lieu of either the Commission or the Congress speaking to the issue.

In summary, while the Commission has produced a document which is not in conflict with my broad philosophy in such matters, I doubt that the public expected a philosophical dissertation, however erudite. It is a tribute to Chairman Palladino's efforts that the Commission has come this far. But the task remains unfinished.

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August 4, 1986

Part IV

Department of Commerce

Patent and Trademark Office

37 CFR Parts 1 and 2
Revision of Trademark Fees; Final Rule

DEPARTMENT OF COMMERCE

Patent and Trademark Office

37 CFR Parts 1 and 2

[Docket No. 60457-6119]

Revision of Trademark Fees

AGENCY: Patent and Trademark Office, Commerce.

ACTION: Final rule.

SUMMARY: The Patent and Trademark Office is amending the rules of practice in patent and trademark cases, Parts 1 and 2 of title 37, Code of Federal Regulations, to adjust trademark fee amounts. This action is necessary at this time because trademark operating costs have increased over the past three and one-half years. The Commissioner is authorized by section 31 of the Trademark (Lanham) Act of 1946, as amended (15 U.S.C. 1113), to establish fees for the filing and processing of an application for the registration of a trademark or other mark and for all other services and materials related to trademarks and other marks.

EFFECTIVE DATE: October 1, 1986.

FOR FURTHER INFORMATION CONTACT: Margaret M. Laurence, Assistant Commissioner for Trademarks by telephone at (703) 557-3061 or by mail marked to her attention and addressed to the Commissioner of Patents and Trademarks, Washington, DC 20231.

SUPPLEMENTARY INFORMATION: This rule change is designed primarily to adjust trademark fees because costs have increased and the Commissioner is authorized to adjust fees for the filing and processing of an application for the registration of a trademark or other mark and for all other processing, services or materials related to trademarks which have been established by the Commissioner in accordance with section 31 of the Trademark (Lanham) Act of 1946, as amended (15 U.S.C. 1113).

Adjustments to fees for filing and processing a patent application and for other processing, services or materials related to patents were made by rules published in the **Federal Register** on August 6, 1985, at 50 FR 31818, effective October 5, 1985.

Adjustments to fees for filing and processing a trademark application and for other processing, services or materials related to trademarks were not proposed at that time, pending review of automation cost requirements. The Patent and Trademark Office's proposal for an integrated Automated Trademark System was included in the President's FY 1987 Budget and the Office's revised Automation Master Plan that were submitted to the Congress in February 1986.

Background Information

Trademark fees are authorized by section 31 of the Trademark (Lanham) Act of 1946, as amended (15 U.S.C. 1113). Section 31 grants the Commissioner the authority to establish trademark fees and the discretion to establish the level of Office costs to be recovered from trademark fees. The House Committee on the Judiciary, in House Report 97-542 accompanying H.R. 6260 that was enacted as Pub. L. 97-247, recommended a trademark fee schedule that was adopted by rule published in the **Federal Register** on July 30, 1982 at 47 FR 33086, effective October 1, 1982.

In House Report 97-542, the Committee stated that:

". . .[it] is aware of the concerns of users of the Trademark registration system, however, and intends to exercise vigorous oversight with respect to the Commissioner to ensure that fees remain at a reasonable level and that trademark registrations are processed in an efficient and cost effective manner. As part of this oversight, the Committee recommends the following fee structure to the Commissioner for Fiscal Year 1983.

Type of fee:	Proposed fee
Application filing fee per class	$175
Renewal fee	300
Late renewal	100
Section 12(c) claim	100
New certificate	100
Certificate of correction	100
Disclaimer to registration	100
Amendment to registration	100
Per class combines section 8 and 15 affidavit	200
Per class section 8 affidavit alone	100
Per class section 15 affidavit alone	100
All petitions to Commissioner	100
Cancellation opposition per class	200
TTAB appeal	100
Certified copies	10
Copies of tradmarks	(1)
Assignments	(1)

[1] $100 plus for each mark in addition to 1."

The Patent and Trademark Office (PTO) believes it is reasonable to use fluctuations in the Consumer Price Index (CPI) during the previous three years to define the maximum aggregate revenue level that may be recovered from trademark fees for the three-year period 1986-1988. Fees would then be set to recover, in the aggregate, projected costs for the fee cycle, but under no circumstances would total revenues exceed the maximum revenue level that would be recovered if fees were adjusted by the CPI.

This is consistent with the method mandated by Pub. L. 97-247 for adjusting patent fees.

The first step in the trademark fee adjustment process was to determine the maximum level of recovery for the three-year fee cycle. This was done by: (1) Multiplying present fees by projected workload for fiscal years 1986-1988, (2) totalling the results, and (3) applying the rate of fluctuation in the Consumer Price Index as determined by the Secretary of Labor.

The second step in the trademark fee adjustment process was to establish the total cost to be recovered from trademark fees for the three year period 1986-1988. The total costs for the filing and processing of an application for the registration of a trademark or other mark and for all other processing, services or materials related to trademarks were determined. The Office followed: (1) The general guidelines set forth in OMB Circular A-25 entitled "User Charges", that establishes general policies for developing an equitable and uniform system of charges for certain Government services and property, and (2) the guidelines for accounting and reimbursement for sharing of information technology facilities as set forth in Appendix II to OMB Circular No. A-130 entitled "Management of Federal Information Resources."

The Office used cost-finding techniques for determining the costs of all processing, services and/or materials associated with each trademark fee. Costs were determined from the best available records and included both direct and indirect costs. Costs were adjusted to reflect projected increases or decreases contained in the President's FY 1987 Budget. These cost figures were documented by the Director, Office of Finance and reviewed by each responsible Assistant Commissioner.

The total projected costs for the three-year period 1986-1988 are lower than the maximum level of recovery which would be allowed if fees were adjusted strictly according to changes in the CPI during the past three years. In its adjustment of Trademark fees, PTO is expected to recover the total projected costs in fiscal years 1987 and 1988 plus a contingency of two percent of the estimated fee income for fiscal years 1987-1988.

This rule continues to follow the suggested fee schedule contained in House Report 97-542, with the exception of increases to the fee for filing an application for registration and the fee for a printed copy of a registered mark. As a result of continuing to follow this

suggested fee schedule, over the two-year period, some trademark fees would recover more than their actual estimated cost and some would recover less than their actual estimated cost. Using the 1986–1988 workload projections, the total fee revenues generated by the proposed fees for the three-year period, in the aggregate, would not exceed the total projected costs for trademarks for the same period, apart from the contingency.

It is intended that the amount of any fee due and payable on or after October 1, 1986 is the amount set in this rulemaking. For purposes of determining the amount of the fee to be paid, the date of mailing indicated on a proper Certificate of Mailing, where authorized under § 1.8 of title 37, Code of Federal Regulations, will be considered to be the date of receipt in the Office. A "Certificate of Mailing under section 1.8" is *not* "proper" for items which are specifically excluded from the provisions of § 1.8. Section 1.8 of title 37, Code of Federal Regulations, should be consulted for those items for which a Certificate of Mailing is *not* "proper." The provisions of § 1.10, relating to filing of papers and fees by "Express Mail" with certificate, however do apply to *any paper or fee* to be filed in the Office. If an application or fee is filed by "Express Mail" with a certificate of mailing dated October 1, 1986, the amount of the fee to be paid is the fee established herein if a change is being made in the fee.

To ensure clarity in the implementation of the fee proposals, a discussion of specific sections is set forth below:

Discussion of Specific Changes

Section 1.24 Coupons.

Section 1.24 is amended to adjust the fee for the purchase of coupons for trademarks to make it comparable to the proposed fee required for the purchase of a printed copy of a registered mark.

Section 2.6 Trademark fees.

Section 2.6 is amended to adjust trademark fees established pursuant to the Trademark (Lanham) Act of 1946, as amended (15 U.S.C. 1113) and set forth in paragraphs (a) and (n) of this section to more closely reflect the cost to the Office of such processing.

Section 2.6, paragraph (o) is amended to provide a $25 fee for the expedited handling of a request for a certified copy of a trademark record. Currently there is no procedure for such expedited handling, and the Office has received many requests that this service be provided.

Section 2.6, paragraph (q), is amended to clarify that the fee for recording documents applies to every paper which relates to the property in a registration or application. This is in accord with past and current Office policy.

Response to Comments on the Rules

Special comments were received on the proposed rule changes. Three letters submitting written comments were received. Oral testimony was presented by two people at the public hearing conducted on June 16, 1986. All of the written and oral comments were considered in adopting the changes set forth herein. The comments submitted appear below along with responses thereto.

Comment: The trademark fee increases of 1982 were accompanied by a commitment that the Trademark Operation would be shielded from government-wide cuts aimed at reducing the deficit. The applicability of the fiscal year 1986 Gramm-Rudman-Hollings sequestration of trademark funds represents a failure of the Federal Government to live up to its side of the bargain. Until these funds are restored to the Trademark Operation and the Administration states that it will not again undermine this provision of law, any effort to increase trademark fees must be deferred.

Reply: Pub. L. 97–247, enacted August 27, 1982, did not provide that the Trademark Operations are exempt from government-wide cuts in expenditures aimed at reducing the federal deficit. The only restriction, imposed by section 3(g), is that the fees collected from trademark activities "shall be used exclusively for the processing of trademark registrations and for other services and materials related to trademarks." The PTO has fully complied with this requirement. Moreover, the Supreme Court has recently decided the constitutionality of Gramm-Rudman-Hollings (The Balanced Budget and Emergency Deficit Control Act of 1985, Pub. L. 99–177, enacted December 12, 1985), holding that the reductions to the federal deficit must be accomplished via the enactment of a joint resolution of the Congress. *See Bowsher v. Synar,* Nos. 85–1377, 85–1378, and 85–1379 slip op. at 20 (July 7, 1986). Consequently, any budget reductions made by the PTO that are mandated by such a joint resolution will be pursuant to law. Therefore, the PTO is not required to defer increases in trademark fees since the provisions of Pub. L. 97–247 do not shield the Trademark Operations from such budget cuts and any such cuts are made pursuant to subsequent law.

Comment: The House of Representatives and the Senate have passed differing versions of H.R. 2434. Both versions prohibit the use of user fees for the search rooms and the House version prohibits user fees for automation. The PTO should withdraw the current proposal, and publish a new proposal for public comment, if needed, after Congress passes the authorization bill.

Reply: The PTO already is in compliance with the provision of the Senate and House authorization bills that prohibits use of fees to fund the search room. In fiscal year 1986, unobligated appropriated funds carried forward from fiscal year 1985 are being used to fund the paper Trademark Search Room. Appropriated funds for the Search Room were requested in the pending FY 1987 President's Budget.

Although the House version of H.R. 2434 prohibits the use of fee income for automation expenditures, it does not provide appropriated funds. The Senate version of H.R. 2434 does not prohibit the use of fee income for automation expenditures. Since there are significant differences between the House and Senate versions on this and other provisions, the PTO must wait for final action by both the Congress and the President.

In the meantime, the PTO will continue to operate in accordance with the 1986 Appropriations Act and the pending FY 1987 President's Budget, which fund Automation through user fees. If legislation is ultimately passed by the Congress and signed by the President that is contradictory to this plan, appropriate adjustments will be made. The suggestion to withdraw the current proposal, and to publish a new proposal for public comment, if needed, after Congress passes the authorization bill has not been adopted.

Comment: It is important for the PTO to make available detailed information concerning activities that are not supported by appropriations since government operations which are supported by user fee income receive far less scrutiny from government authorities (cabinet level department officials, Office of Management and Budget, and appropriation committees in Congress) than operations which are supported by appropriations.

Reply: The assertion that government operations supported by user fee income receive far less scrutiny from government authorities is not correct. Fee supported activities receive the same amount of oversight as activities supported by appropriations. In Senate Report 99–305 accompanying bill H.R.

2434, the Committee on the Judiciary said that:

". . . Congress never envisioned that activities financed by user fees would be any more beyond the scrutiny of Congressional oversight than those activities that are paid for by appropriations. On the contrary, it is clear that the Office's authority to collect and spend user fee money does not remove these activities from Congressional oversight and control.

. . . Both the authority to raise general revenue and the authority to allow the Office to set fees rests with Congress. If Congress is to carry out the responsibilities attending both of these exercises of its power, it must carefully review the effectiveness and efficiency of all agency activities no matter how they are funded. While it may be proper to restrict the funding of certain activities to appropriations, such restrictions cannot be justified solely by reference to the need to increase oversight. That reasoning implies that Congress has less concern over how the agency spends user fee money. In the case of the Patent and Trademark Office, this would imply that most of the agency's activities are not subject to effective congressional review, which, as pointed out above, is simply not true."

Specific examples of oversight include: (1) The budget process requires program levels to be fully justified regardless of funding sources; (2) the budget request is thoroughly analyzed and evaluated, without regard to revenue source, by the Department of Commerce, Office of Management and Budget (OMB) and the Appropriations Committees in the Congress; (3) fee revenues are appropriated annually by the Congress; (4) the use of fee money by the PTO is subject to the same OMB apportionment process as the use of appropriations; (5) Department of Treasury reports do not distinguish between funding sources; and (6) reprogramming (or redirection) of funds that vary from the enacted budget require Department and OMB approvals and Congressional notification, regardless of funding source.

In addition, since 1983 the PTO has routinely provided the Public Advisory Committee for Trademark Affairs with detailed reports which fully disclose the source and use of all trademark-related resources.

Comment: It is contrary to existing law (Public Laws 96–517 and 97–247) to spend user fee income for the search rooms and automation.

Comment: Despite representations that major capital expenses would be underwritten by General Fund revenues, not user fees, the PTO continues to rely on user fee income to finance its trademark automation project and the public search room.

Reply: User fee income is not being spent on the paper Trademark Search Room in fiscal year 1986. The paper Trademark Search Room is being funded from unobligated appropriated funds carried forward from fiscal year 1985. For fiscal year 1987, the PTO has requested $322,000 in appropriated funds to maintain the paper Trademark Search Room. Reference page 41 of the PTO's 1987 Budget Submission to the Congress.

Pub. L. 96–517, although enacted into law, was never fully implemented because the Congress passed H.R. 6260 which was enacted as Pub. L. 97–247 on August 22, 1982. The restrictions on the use of income from fee revenues, which were included in House Report 96–1307 accompanying Pub. L. 96–517, were based upon a 50 percent recovery of patent and trademark costs from user fees. Then-Commissioner Mossinghoff testified before the Subcommittee on Courts, Civil Liberties, and Administration of Justice, when Congress was considering H.R. 6260, that the Administration's PTO user fee program was proposed to improve the quality of service at the PTO by reducing patent pendency, trademark pendency and automating patent and trademark operations. The Commissioner went on to say that: "The major increases in the three program areas will be paid for by the sharp increase in user fees that we are recommending." The Congressional debate on this proposal indicates that the Subcommittee approved these innovative fee provisions in order to improve the level of patent and trademark services provided to users of the office. Expenditure of funds since 1983 is believed to have met this goal.

Comment: There is no reason why any fee increases have to be in effect by October 1, 1986.

Reply: While there is no legal compulsion for an October 1, 1986 effective date for the fee increase, there are financial reasons for adjusting fees at that time. For every one-month of delay beyond October 1, 1986, the Trademark Operation will receive about $135,000 less in fee revenues which will mean that the program contemplated for fiscal year 1987 will be affected. The PTO's budget is prepared annually for the period October 1 through September 30 and it is important that planned expenditures equal planned income.

Comment: The Notice of Proposed Rulemaking justifies the proposed fee increase on the ground that the amount of the increase is less than the increase that has occurred in the Consumer Price Index.

Reply: The proposed fee increase is justified on the basis that costs have increased since October 1982 when the present fee schedule was established, and the Commissioner is authorized by section 31 of the Trademark (Lanham) Act of 1946, as amended (15 U.S.C. 1113) to adjust fees.

On page 18290 of the Notice of Proposed Rulemaking under Summary it is stated that: "This action [to adjust trademark fees] is necesssary at this time because trademark operation costs have increased over the past three and one-half years." On the same page, third column, the methodology used to determine the costs associated with each trademark fee was described. The Notice of Proposed Rulemaking then goes on to say that: "The total projected costs for the three-year period 1986–1988 are lower than the maximum level of recovery which would be allowed if fees were adjusted strictly according to changes in the CPI during the past three years." In other words, Trademark Operation costs for 1987–1988 are projected to be less than changes in the CPI during the past three years.

Comment: PTO has failed to justify why the trademark fee increases are necessary. The PTO should make calculations and other relevant information pertaining to the proposed increases available to the public and the Congress.

Reply: Because of the volume, it was not feasible for the PTO to publish the calculations and other relevant information upon which the proposed fee increases were based. As stated in the third column of page 18290 of the Notice of Proposed Rulemaking, the Office followed OMB guidelines and the cost figures were documented by the Director, Office of Finance [a Certified Public Accountant] and reviewed by each responsible Assistant Commissioner. All of the backup documentation is available for review, upon request.

Comment: If costs are reduced as they were through the forced reductions in the PTO's budget authority under the Deficit Reduction Act, the entire concept on which the PTO calculates its trademark fees must be reconsidered before further fee increases can be reasonably considered.

Reply: The 1987 Federal budget submitted by the President to the Congress meets the 1987 deficit reduction goal established by the Balanced Budget and Emergency Deficit Control Act of 1985. Therefore, there is no basis for the PTO to assume alternative funding levels in 1987. The suggestion that the trademark unit cost calculations be reconsidered before further fee increases has not been adopted.

Comment: In the Notice of Proposed Rulemaking, the PTO requested comments on the methodology it employed in calculating the need for a fee increase. It is impossible to comment on the process itself in the absence of more detailed information.

Reply: The PTO did not request comments on the methodology it employed in calculating the need for a fee increase. On page 18291 of the Notice of Proposed Rulemaking, first column, it states that: "In its adjustment of Trademark fees, PTO seeks to recover total projected costs in FY 1987 and FY 1988 and to provide for a contingency of two percent of the estimated fee income for fiscal years 1987–1988. PTO seeks comments on this approach." No comments were received on the planned contingency. This fact notwithstanding, the PTO has adopted this approach as part of its excess fee policy.

Comment: The Notice of Proposed Rulemaking does not explain what expenses of the Office will be paid with trademark fees. In particular, the notice does not explain what items are included in "indirect costs."

Reply: The Commissioner has the authority to establish trademark fees and the discretion to establish the level of Office costs to be recovered from trademark fees. Since fiscal year 1983, the PTO has recovered 100 percent of the costs related to trademark processing, both direct and indirect. Direct costs are those represented by the Trademark budget activity (page 29 of the PTO's 1987 Budget Submission to the Congress): Trademark examination (including contractual costs for T-Search), the Trial and Appeal Board, and Trademark printing. Indirect costs are costs incurred by other offices in the PTO which carry out trademark activities: Customer Services (providing trademark copies to examining attorneys, processing certificates of correction and assignments, etc.), Publications (administration of the contract to print the Trademark *Official Gazette*), Management Planning (collecting and processing trademark fees), Administrative Services (mail processing, files repository, etc.) and Automation (TRAM operations, ATS implementation and operations, etc.). No trademark fees are used to fund the Office of the Commissioner, the Office of Legislation and International Affairs, the Office of the Solicitor staff in the immediate Office of the Automation Administrator, or any other PTO function that is not directly related to trademark processing.

Comment: The Notice of Proposed Rulemaking does not explain how the Office's revised automation plans have affected the need for fee increases.

Reply: The Notice of Proposed Rulemaking, second column, page 18290 states that: "The Patent and Trademark Office's proposal for an integrated Automated Trademark System was included in the President's FY 1987 Budget and the Office's revised Automation Master Plan that were submitted to the Congress in February 1986." The PTO's 1987 Budget Submission to the Congress, page 32 states that: "The PTO requests a net increase of $901,000 to fund an automation initiative providing further improvements in the capabilities, performance, availability, and efficiency of the existing systems through enhancements for an integrated ATS (Automated Trademark System) . . . . The full cost of the increase has been partially offset by a decrease of $624,000 for the T-Search contract. ATS will provide automated support to all Trademark operations currently supported by TRAM and T-Search."

In addition to Automation, other increases, such as four new positions for the Trademark Trial and Appeal Board, have caused costs to increase thereby necessitating the fee increase.

Comment: The Notice of Proposed Rulemaking contains no discussion of the policy of the House Judiciary Committee in 1982 of keeping the filing fee relatively low and recovering more than the actual cost for other trademark services or materials. Was this consideration taken into account in establishing the proposed fees?

Reply: The suggestion of the House Committee on the Judiciary that the filing fee be kept as low as possible to foster use of the Federal registration system was the basis for the proposed fee adjustments. The Notice of Proposed Rulemaking, first column, page 18290, quoted the text of House Report 97–542 which suggested that the Commissioner ensure that fees remain at a reasonable level. Included in the quote was the House Committee's recommended fee schedule that was adopted by rule published in the **Federal Register** on July 30, 1982.

Further, on page 18291, first column, it is stated that: "This proposed rulemaking would continue to follow the suggested fee schedule contained in House Report 97–542, with the exception of proposed increases to the fee for filing an application for registration and the fee for a printed copy of a registered mark. As a result of continuing to follow this suggested fee schedule, over the two-year period, some trademark fees would recover more than their actual estimated cost and some would recover less than their actual estimated cost."

Comment: The proposed increase of $25.00 for filing an application is against the concept of keeping the filing fee relatively low and recovering more than actual cost for other trademark services or materials.

Reply: The projected cost for filing an application for fiscal years 1987–1988 is $242.84 per application, per class. The Office has set the application fee at $200.00 or 21.4 percent below cost. At that reduced level, the Trademark Operation will lose almost $6 million over the two-year period which must be made up from other Trademark fees. The Trademark Operation is also losing revenues on other fees directly related to the Federal registration of a trademark, i.e., fees for filing oppositions, appeals, and petitions. Combined with the application fee shortfall, the total loss over the two-year period will be almost $10 million. On the other hand, fees from renewals, Section 8 and 15 affidavits, and assignments are expected to generate excess revenues of about $9 million. This excess, plus another $1 million generated from some other trademark fees will equal the shortfall caused by the reduced fees for processing applications, oppositions, appeals and petitions.

Comment: The PTO should explain why it charges $100 for a trademark assignment and only $7.00 for a patent assignment. The cost to the government of recording a trademark assignment could not even come close to the $100 fee being charged.

Reply: The PTO charges more than the actual cost to record trademark assignments in order to subsidize other areas of the Trademark Operation, specifically the processing of applications. This is in accordance with the fee structure suggested by the House Committee on the Judiciary in House Report 97–542 which accompanied the bill which was enacted as Pub. L. 97–247. This policy was also recommended by various bar groups, including the Public Advisory Committee for Trademark Affairs.

Comment: Trademark fees are becoming increasingly onerous, particularly on small businesses which must often select less than the total number of classes to which they are entitled to file, for economic reasons. The filing fee for a trademark application already exceeds that for a small entity filing a patent application.

Reply: As reported on page 18291 of the Notice of Proposed Rulemaking, the General Counsel of the Department of Commerce certified to the Small

Business Administration that the proposed rule change will not have a significant adverse economic impact on a substantial number of small entities because the increase is modest in comparison with the 400 percent increase in the application fee in October 1982, and the increase then had no noticeable impact. While the Office has no way of ascertaining which applications are filed by small businesses, a review of the number of applications filed by individuals and partnerships during the years 1980–1982 prior to the 400 percent increase and the years 1983–1985 after the fee increase showed an increase, rather than a decrease, in the number of filings by individuals. This is confirmed by the total figures on filing which indicate that fees have not deterred applicants. The annual number of application classes filed for prior to the fee increase was 50,672, 52,149 and 55,152 in fiscal years 1979, 1980 and 1981, respectively. There was a dump of cases in September 1982 to avoid the October 1, 1982 fee increase, which distorts the filing data for fiscal years 1982 and 1983. However, filings have continued to increase at over five percent a year in 1984 and 1985 (61,480 and 64,677, respectively). Latest projections for 1986 indicate we will be receiving almost 68,800 applications, or 6.3 percent more than 1985.

Comment: Trademark fee income has been diverted to non-trademark activities.

Reply: No trademark fee income is used for any purpose other than trademark-related activities.

Comment: The PTO has vastly underestimated and understated the number of requests it receives for trademark copies and, as a consequence, Trademarks is not receiving appropriate credit for the income this service generates.

Reply: It is beyond the control of the PTO if a user buys a coupon for a patent copy and then uses it to pay for a trademark copy. To comply with the provisions of Pub. L. 97–247 that trademark fee income be used only for trademark-related activities, the Office of Finance has been crediting the Trademark account with revenues that equate to the number of trademark copies actually sold each month by the copy fulfillment contractor. The same accounting adjustment is being used for copies made on the vendor-operated copy machines.

Comment: The notice does not explain the 50 percent increase in the cost of printed copies of registered marks.

Reply: The cost of providing one trademark copy is $1.95 based on projected costs for fiscal years 1987 and 1988. These costs include $43,100 for personnel compensation and benefits, $53,200 for contractor costs, $25,300 for services, supplies and depreciation of capital equipment, and $24,500 for general and administrative expenses. Assuming 74,900 trademark copies will be sold over the two-year period, the unit cost is $1.95. The PTO proposed to increase the fee for a trademark copy by $.50 to $1.50 to more closely reflect the cost of providing a trademark copy, and to make it comparable to the fee for a patent copy for ease of administration.

Comment: How is the $25.00 fee for expedited handling of certification requests justified?

Reply: The Office followed OMB Circular A–25 Guidelines on "User Charges" to determine the projected direct and indirect costs for expedited handling of certification requests. Circular A–25 provides that a reasonable charge should be imposed to recover the full cost to the Government of rendering a service to an identifiable recipient.

The Assistant Commissioner for Trademarks has estimated that about 1,000 requests for expedited certification would be received each year. This estimate is based on the number of public inquiries presently received for special handling for certifications.

Assuming about 2,000 requests for expedited certification will be received during the two year period 1987–1988, it is estimated that the costs would be $49,248, or $25.00 per unit rounded to the nearest dollar. The costs include $40,982 for personnel compensation and benefits for 2.1 staff years of effort, and $8,266 for general and administrative expenses (20.17 percent of direct costs).

The PTO intends to issue guidelines regarding the expedited service procedures prior to October 1, 1986. Requests delivered to the Trademark Services Division before noon will be available for pick-up or mailing no more than three working days thereafter.

Comment: The Senate version of H.R. 2434 would require the PTO to report annually several items of statistical information concerning the Office's fee collections and expenses; i.e., a list of patent and trademark fee collections, and lists of the activities of the Office supported by patent fees, trademark fees and appropriations. This type of information should be made available to the public before any fees are increased.

Reply: The PTO is already providing lists of patent and trademark fee collections in Table 4 of the Commissioner's Annual Report. The report is sent to the Congress and is available for public dissemination. Since 1983, the PTO has periodically provided detailed information to the Public Advisory Committee on Trademark Operations which includes a list of PTO activities supported by trademark fees. Upon enactment of an authorization bill, the PTO will comply with the requirements of both the legislation and the accompanying report.

Comment: The PTO should expand the information contained in the Congressional budget under Fee Functions to show the amount of trademark and patent fee income dollars and the amount of appropriated dollars that are being used to support each item in its budget.

Reply: The Congressional Budget is prepared in the format requested by the House and Senate Appropriations Subcommittees. As indicated above, the PTO will comply with any additional reporting requirements that may be included in enacted authorizing legislation.

With regard to trademark user fees, since 1983 the PTO has routinely provided the Public Advisory Committee for Trademark Affairs with detailed reports which fully disclose the source and use of all Trademark-related resources. The reports include resources (e.g., unobligated resources, balances carried forward from prior years, excess fees from prior years, and current-year's fees); expenditures for direct trademark activities (examination, T-Search, Trial and Appeal Board, and printing), and indirect trademark activities (Customer Services, Publications, Management Planning, Administrative Services, and Automation); and backup documentation as requested. The PTO has regularly modified its reporting formats to accommodate the needs of the user community and is presently working with the Advisory Committee to develop a "business-type" financial report.

Comment: The PTO should adopt a policy of giving the public a minimum of 60 days to comment after every rule change proposal is published in the **Federal Register.**

Reply: The Administrative Procedure Act (5 U.S.C. 551 et. seq.) requires that the public be given the right to participate in the rulemaking process by commenting on proposed rules. The PTO makes every attempt to provide between 45 and 60 days but no less than 30 days for public comment. The public comment period is dependent on internal and external review requirements and effective date constraints.

Other Considerations

The rule change is in conformity with the requirements of the Regulatory Flexibility Act (Pub. L. 96–354), Executive Order 12291, and the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq. There are no information collection requirements relating to trademark fee rules.

The General Counsel of the Department of Commerce certified to the Small Business Administration that the rule change will not have a significant adverse economic impact on a substantial number of small entities (Regulatory Flexibility Act, Pub. L. 96–354). Although these rules increase the trademark fees, the cost of Federal registration of a trademark is a small part of the cost of doing business. Furthermore, the incremental change is modest in comparison with the increase in the application fee in October 1982, and the increase then had no noticeable impact. Office records show no decline in the number of applications filed by individuals and partnerships after the October 1982 fee increases, and the rules maintain the present fee schedule for the most part, and limit the increase in the filing fee to the minimum amount possible.

The Patent and Trademark Office has determined that this rule change is not a major rule under Executive Order 12291. The annual effect on the economy will be less than $100 million. There will be no major increase in costs or prices for consumers, individual industries, federal, state, or local government agencies, or geographic regions. There will be no significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

List of Subjects in 37 CFR Parts 1 and 2

Administrative practice and procedure, Authority delegations (government agencies), Conflict of interest, Courts, Inventions and patents, Lawyers, Trademarks.

Notice is hereby given that pursuant to the authority granted to the Commissioner of Patents and Trademarks by 35 U.S.C. 6, 15 U.S.C. 1113 and 1123, and Pub. L. 97–247, the Patent and Trademark Office is amending title 37 of the Code of Federal Regulations as set forth.

PART 1—RULES OF PRACTICE IN PATENT CASES

1. The authority citation for 37 CFR Part 1 continues to read as follows:

Authority: 35 U.S.C. 6, unless otherwise noted.

2. Section 1.24 is revised to read as follows:

§ 1.24 Coupons.

Coupons in denominations of one dollar and fifty cents for the purchase of patents, designs, defensive publications, statutory invention registrations, and trademark registrations are sold by the Patent and Trademark Office for the convenience of the general public; these coupons may not be used for any other purpose. The one dollar and fifty cent coupons are sold individually and in books of 50 with stubs for record for $75. These coupons are good until used; they may be transferred but cannot be redeemed.

PART 2—RULES OF PRACTICE IN TRADEMARK CASES

1. The authority citation for 37 CFR Part 2 is revised to read as follows:

Authority: 15 U.S.C. 1123; 35 U.S.C. 6, 25, unless otherwise noted.

2. Section 2.6 is amended by republishing the introductory text and revising paragraphs (a), (n), (o) and (q) to read as follows.

§ 2.6 Trademark fees.

The following fees and charges are established by the Patent and Trademark Office for trademark cases:

(a) For filing an application, per class	$200.00
(n) For printed copy of registered mark, copy only	$1.50
* * * * *	
(o) For certifying trademark records, per certificate	$3.50
For expedited handling of such certification, per record requested	$25.00
* * * * *	
(q) For recording trademark assignments and agreements or other papers relating to the property in a registration or application, per document	$100.00

* * * * *

Dated: June 25, 1986.

Donald W. Peterson,

Deputy Assistant Secretary and Deputy Commissioner of Patents and Trademarks.

[FR Doc. 86–17552 Filed 8–1–86; 8:45 am]

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[1] No amendments to this volume were promulgated during the period Apr. 1, 1980 to March 31, 1985. The CFR volume issued as of Apr. 1, 1980, should be retained.

[2] No amendments to this volume were promulgated during the period July 1, 1984 to June 30, 1985. The CFR volume issued as of July 1, 1984, should be retained.

[3] The July 1, 1985 edition of 32 CFR Parts 1–189 contains a note only for Parts 1–39 inclusive. For the full text of the Defense Acquisition Regulations in Parts 1–39, consult the three CFR volumes issued as of July 1, 1984, containing those parts.

[4] The July 1, 1985 edition of 41 CFR Chapters 1–100 contains a note only for Chapters 1 to 49 inclusive. For the full text of procurement regulations in Chapters 1 to 49, consult the eleven CFR volumes issued as of July 1, 1984 containing those chapters.

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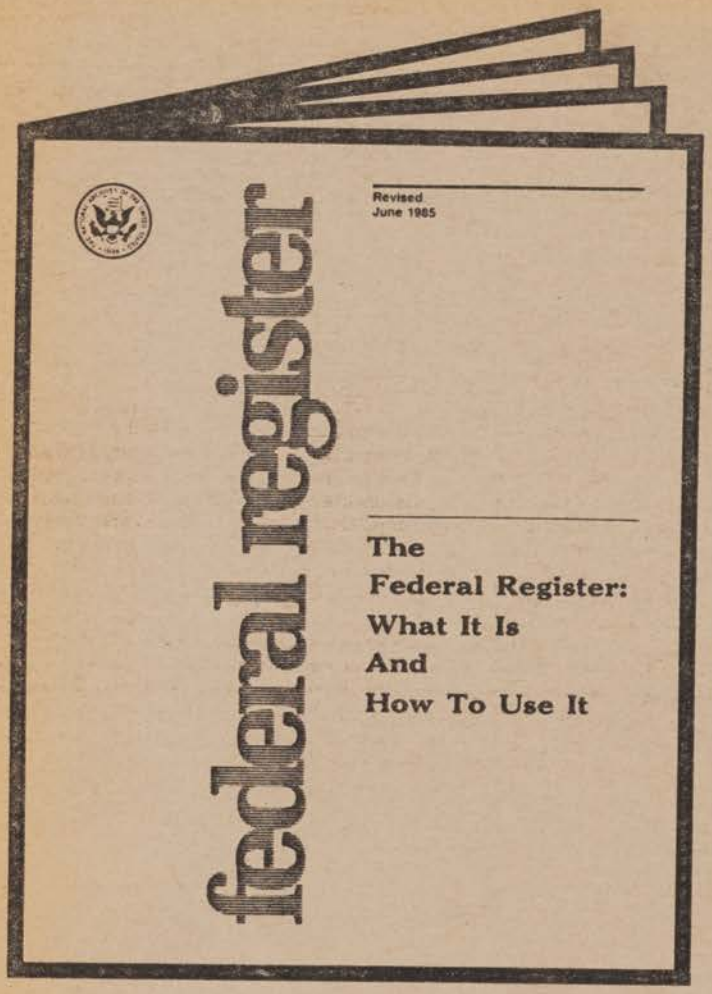

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