

been determined that section 553(b) of the Administrative Procedure Act (5 U.S.C. chapter 5) and the Regulatory Flexibility Act (5 U.S.C. chapter 6) do not apply to these regulations, and, therefore, a Regulatory Flexibility Analysis is not required. Pursuant to section 7805(f) of the Internal Revenue Code, this notice of proposed rulemaking will be submitted to the Chief Counsel for Advocacy of the Small Business Administration for comment on its impact on small business.

#### Comments and Requests for a Public Hearing

Before these proposed regulations are adopted as final regulations, consideration will be given to any written comments (a signed original and eight (8) copies) that are submitted timely to the IRS. All comments will be available for public inspection and copying. A public hearing may be scheduled if requested in writing by any person that timely submits written comments. If a public hearing is scheduled, notice of the date, time, and place for the hearing will be published in the Federal Register.

#### Drafting Information

The principal author of the regulations concerning the modifications of bad debts is Craig R. Wojay, Office of Assistant Chief Counsel (Financial Institutions and Products), IRS. The principal author of the regulations concerning dealer assignments of notional principal contracts is Thomas J. Kelly, Office of Assistant Chief Counsel (Financial Institutions and Products), IRS. However, other personnel from the IRS and Treasury Department participated in their development.

#### List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

#### Proposed Amendments to the Regulations

Accordingly, 26 CFR part 1 is proposed to be amended as follows:

### PART 1—INCOME TAXES

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

Authority: 26 U.S.C. 7805 \* \* \*

Par. 2. Section 1.166-3 is amended by adding paragraph (a)(3) to read as follows:

#### § 1.166-3 Partial or total worthlessness.

(The text of proposed paragraph (a)(3) is the same as the text of § 1.166-

3T(a)(3) published elsewhere in this issue of the Federal Register).

Par. 3. Section 1.1001-4 is added to read as follows:

#### § 1.1001-4 Modifications of notional principal contracts.

(The text of proposed section 1.1001-4 is the same as the text of § 1.1001-4T published elsewhere in this issue of the Federal Register).

Margaret Milner Richardson,

Commissioner of Internal Revenue,

[FR Doc. 96-15831 Filed 6-24-96; 8:45 am]

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 59

[AD-FRL-5526-3]

### National Volatile Organic Compounds Emission Standards for Architectural Coatings

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule and notice of public hearing.

**SUMMARY:** The proposed standards would reduce emissions of volatile organic compounds (VOC) from architectural coatings. The proposed standards implement Section 183(e) of the Clean Air Act (CAA), as amended in 1990, which requires the Administrator to control VOC emissions from certain categories of consumer and commercial products.

Exposure to ozone is associated with a wide variety of human health effects, agricultural crop loss, and damage to forests and ecosystems. As required by Section 183(e), the Administrator conducted a study to determine the potential of VOC emissions from consumer and commercial products to contribute to ozone levels that violate the National Ambient Air Quality Standards (NAAQS) for ozone and established a list of product categories to be regulated. Based on the criteria described in the study and accompanying report, the EPA determined that VOC emissions from architectural coatings should be reduced. Therefore, the EPA is proposing standards to reduce ozone-causing VOC emissions from these coatings. The proposed standards would reduce annual emissions of VOC by 106,000 tons representing a 20 percent reduction from 1990 levels.

The proposed rule is centered around requiring VOC content levels for 55 individual architectural coating

categories. When promulgated these requirements on manufacturers and importers of architectural coatings are anticipated to take effect on April 1, 1997. This rulemaking is on an expedited schedule, with a relatively short public comment period.

Following proposal of this rule, the EPA plans to participate in a joint study with the architectural coatings industry. This study will focus on the feasibility of adopting more stringent VOC requirements in the future.

**DATES: Comments.** Comments pertaining to the proposed rule must be received on or before August 30, 1996.

**Public Hearing.** A public hearing will be held, if requested, to provide interested persons an opportunity for oral presentation of data, views, or arguments concerning the proposed standards for architectural coatings. If anyone contacts the EPA requesting to speak at a public hearing concerning this proposed rule by July 18, 1996, a public hearing will be held on July 30, 1996, beginning at 10:00 a.m. Persons interested in attending the hearing should notify Ms. Kim Teal, (919) 541-5580 by July 18, 1996, to verify that a hearing will occur and for notification of the location of the hearing. The record for the public hearing will remain open for 30 days after completion of the hearing to provide an opportunity for the submission of rebuttal and supplementary information.

Persons wishing to present oral testimony concerning this proposed rule must contact Ms. Kim Teal at the EPA by July 18, 1996. Ms. Teal may be contacted at the following address: Coatings and Consumer Products Group (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5580, FAX number (919) 541-5689.

**ADDRESSES: Comments.** Comments should be submitted (in duplicate) to: Air and Radiation Docket and Information Center (6102), Attention: Docket No. A-92-18, U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460. Comments and data may also be submitted electronically by sending electronic mail (e-mail) to: a-and-r-docket@epamail.epa.gov. Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disks in WordPerfect in 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number A-92-18. No Confidential Business

Information (CBI) should be submitted through e-mail. Electronic comments on this proposed rule may be filed online at many Federal Depository Libraries.

**Docket.** The proposed regulatory text and other materials related to this rulemaking, excepting any information claimed as CBI, are available for review in a public record. This record has been established for this rulemaking under docket number A-92-18. The docket, including paper versions of electronic comments, is available for inspection from 8:00a.m. to 5:30p.m. Monday-Friday, excluding legal holidays. The docket is located at the EPA's Air and Radiation Docket and Information Center, Room M1500, 1st Floor, 401 M St. S.W., Washington, D.C. 20460, telephone (202) 260-7548, FAX (202) 260-4400. A reasonable fee may be charged for copying.

**Background Information Document.** The background information document (BID) and other documents supporting the proposed standards may be obtained from the docket or from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please refer to "Architectural Coatings—Background for Proposed Standards," EPA-453/R-95-009a.

**FOR FURTHER INFORMATION CONTACT:** For information concerning the proposed standards, contact Ms. Ellen Ducey at (919) 541-5408, Coatings and Consumer Products Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

**SUPPLEMENTARY INFORMATION:**

**Regulated entities**

Entities potentially regulated by this action are those who have the potential to supply products which emit VOC and are listed in § 183(e) of the CAA in the following regulated categories and entities:

Category	Examples of regulated entities
Manufacturer	Source that produces, packages, or repackages architectural coatings for sale or distribution in the U.S.
Importers .....	Source that brings architectural coatings from a location outside the U.S. into the U.S. for sale or distribution within the U.S.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA is now aware could potentially be regulated by

this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria in § 59.400 of the rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding

**FOR FURTHER INFORMATION CONTACT** section of this preamble.

The regulatory text of the proposed rule is not included in this Federal Register notice, but is available in Docket No. A-92-18 (see **ADDRESSES** for information about the docket). The proposed regulatory language is also available on one of the EPA's Technology Transfer Network (TTN) electronic bulletin boards.

The TTN provides information and technology exchange in various areas of air pollution control. The TTN contains 18 electronic bulletin boards, and the following five items can be obtained through the Clean Air Act Amendments bulletin board in the section called **Recently Signed Rules:**

- (1) "FACT SHEET: Proposed Air Regulations for Architectural Coatings (1995)."
- (2) Federal Register notice for this preamble: "National Volatile Organic Compound Emission Standards for Architectural Coatings" (this document).
- (3) Regulatory text for the proposed rule.
- (4) "Architectural Coatings—Background for Proposed Standards," (EPA-453/R-95-009a).
- (5) Information Collection Request document for the proposed standards: "Reporting and Recordkeeping Requirements for National VOC Emission Standards for Architectural Coatings," November 29, 1995.

The TTN is accessible 24 hours per day, 7 days per week except Monday morning from 8:00 a.m. to 12:00 p.m. when the system is down for maintenance and back up. The service is free, except for the cost of a phone call. Dial (919) 541-5742 for up to a 14,400 bits per second (bps) modem. If more information on the TTN is needed, call the help desk at (919) 541-5384.

The information presented in this preamble is organized as follows:

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**I. Background**

**A. Clean Air Act Requirements**

Exposure to ground-level ozone is associated with a wide variety of human health effects, agricultural crop loss, and damage to forests and ecosystems. The most thoroughly studied health effects of exposure to ozone at elevated levels during periods of moderate to strenuous exercise are the impairment of normal functioning of the lungs, symptomatic effects, and reduction in the ability to engage in activities that require various levels of physical exertion. Typical symptoms associated with acute (one to three hour) exposure to ozone at levels of 0.12 parts per million (ppm) or higher under heavy exercise or 0.16 ppm or higher under moderate exercise include cough, chest pain, nausea, shortness of breath, and throat irritation.

Ground-level ozone, which is a major component of "smog," is formed in the atmosphere by reactions of VOC and oxides of nitrogen (NO<sub>x</sub>) in the presence of sunlight. In order to reduce ground-level ozone concentrations, emissions of VOC and NO<sub>x</sub> must be reduced.

Section 183(e) of the CAA addresses VOC emissions from the use of consumer and commercial products. It requires the EPA to study VOC

emissions from the use of consumer and commercial products, to report to Congress the results of the study, and to list for regulation products accounting for at least 80 percent of VOC emissions resulting from the use of such products in ozone nonattainment areas.

Accordingly, in the March 23, 1995 Federal Register (60 FR 15264), the EPA announced the availability of the "Consumer and Commercial Products Report to Congress" (EPA-453/R-94-066-A), and published the consumer and commercial products list and schedule for regulation. Architectural coatings are in the first group of products to be regulated by March 1997. This listing and prioritization are not final Agency actions, and the EPA requests comment on the placement of architectural coatings on the list and the priority assigned to these coatings.

#### B. Regulatory Background

Architectural coatings are included under the definition of consumer and commercial products because the definition under Section 183(e) of the CAA specifically includes paints, coatings, and solvents. Section 183(e) of the CAA requires that the first group of consumer and commercial products (i.e., those with highest priority for regulation) be regulated within two years after publication of the regulatory schedule. As mentioned previously, architectural coatings are in the first group of consumer and commercial products to be regulated and, therefore, must be regulated by March 1997.

Because preliminary information indicated that the architectural coatings category is a sizable contributor to ozone levels in nonattainment areas, it seemed probable that this category would be a high priority for regulation. In 1992, the EPA initiated a regulatory negotiation to address architectural coatings (see section IV.B for a discussion of the negotiation). Throughout this process, the EPA maintained that if the final results of the study of consumer and commercial products varied from preliminary estimates, the EPA's decision to include architectural coatings in the first group of categories to be regulated could change. The study indicated that the VOC emissions from consumer and commercial products represent approximately 28 percent of all manmade VOC emissions. The architectural coatings category is one of the largest consumer and commercial product categories, accounting for about nine percent of the emissions of VOC from all consumer and commercial products. Based on evaluation of criteria developed under Section 183(e) of the

CAA, architectural coatings were placed in the first group of products to be regulated. The criteria that contribute to the prioritization of architectural coatings in the first group of consumer and commercial products to be regulated include the availability of alternatives, the cost-effectiveness of controls, and the quantity of VOC emissions in ozone nonattainment areas. Further details about the criteria used to prioritize consumer and commercial product categories for regulation are available in the report to Congress.

Architectural coating regulations are already in place in a number of States, and many other States are in the process of developing regulations. For the companies that market architectural coatings in different States, trying to fulfill the differing requirements of State rules has created administrative, technical, and marketing problems. A Federal rule is expected to provide some degree of consistency, predictability, and administrative ease for the industry. In addition, State representatives have recommended that the EPA develop and implement Federal control measures. This is because a national rule helps reduce compliance problems associated with noncompliant coatings being transported into nonattainment areas from neighboring areas and neighboring States. Also, a national rule will enable States to obtain needed emission reductions from this sector in the near term, without having to expend their limited resources to develop similar rules in each State.

#### C. Supporting Documentation for the Proposed Standards

The architectural coating BID (EPA 453/R-95-009a) contains some supporting documentation for this proposal. It contains a product category description, an industry profile, a discussion of control measures, and a description of the expected emission reductions. Other supporting information for this proposed regulation includes existing State regulations, regulatory negotiation presentation material, meeting summaries, survey data, technical memoranda including the economic impact analysis, and the report to Congress on consumer and commercial products. This information is contained in the docket and is available to the public as described above.

#### II. Summary of Proposed Standards

The proposed standards are summarized below. The rationale for the regulatory decisions made in developing these standards is provided in section V.

#### A. Applicability of the Standards

The provisions of the proposed rule apply to all architectural coatings that are manufactured or imported for sale or distribution in the United States on or after April 1, 1997. An architectural coating is defined in the proposed rule as "a coating recommended for field application to stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs."

Category definitions in the proposed rule, such as "exterior flats" or "industrial maintenance coatings," are a subset of architectural coatings. A coating must first meet the general definition of an architectural coating to be subject to the provisions of the proposed rule.

The proposed standards do not apply to the following architectural coatings:

- (1) Coatings manufactured exclusively for sale outside the United States;
- (2) Coatings manufactured or imported prior to April 1, 1997;
- (3) Coatings supplied in nonrefillable aerosol containers;
- (4) Coatings that are collected and redistributed at community-based paint exchanges; and
- (5) Coatings sold in containers with capacities of 1 liter or less.

#### B. Regulated Entities

Regulated entities in this proposal are limited to architectural coating manufacturers and importers as defined below.

*Architectural coating importer (or importer)* means a company, group, or individual that brings architectural coatings from a location outside the United States into the United States for sale or distribution within the United States.

*Architectural coating manufacturer (or manufacturer)* means a company, group, or individual that produces, packages, or repackages architectural coatings for sale or distribution in the United States. A company, group, or individual that repackages architectural coatings as part of a community-based paint exchange and does not produce, package, or repackage any other architectural coatings for sale or distribution in the United States is excluded from this definition.

#### C. VOC Levels

The proposed rule is centered around VOC content levels for 55 individual architectural coating categories. Manufacturers and importers must limit the VOC content of subject coatings to the VOC levels in Table 1, which are effective April 1, 1997 and thereafter.

As shown in Table 1, the categories of low solids stains and low solids wood

preservatives have different units for the VOC content level. The VOC content for these categories is expressed in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including water and exempt compounds. This is because, unlike conventional coatings, which achieve a film-build, these stains and wood preservatives are not applied to achieve a certain thickness of solid film, but rather to affect penetration of the stain or wood preservative. For these low solids coatings, the assumption that coverage of the coating is dependent on the volume of solids in the coating is not valid. The volume of the coating (which must include at least 50 percent water in the volatile fraction) determines coverage. For this reason, the VOC content level is determined "including water and exempt compounds."

A coating is subject to the VOC content level for the category in Table 1 that describes the coating's recommended use, appearance characteristics, and/or resin type. If a coating meets the definition of an architectural coating and is subject to the proposed rule, it must be identified by the manufacturer or importer to be defined under at least one of the categories listed in Table 1. If a coating does not meet any of the other category definitions besides "flat" or "nonflat," it would be categorized in either the flat or nonflat category depending on its gloss level. These default categories generally require lower VOC content levels than other categories in Table 1. If a coating is marketed in more than one of the listed coating categories, compliance is required with the lowest applicable VOC content level except for the following:

- (1) High temperature coatings that may also be suitable for use as metallic pigmented coatings are subject only to the VOC level for high temperature coatings;
- (2) Lacquer sanding sealers that may also be suitable for use as sanding sealers in conjunction with clear lacquer topcoats are subject only to the VOC level for lacquer sanding sealers;
- (3) Metallic pigmented coatings that may also be suitable for use as roof coatings, industrial maintenance coatings, or primers are subject only to the VOC level for metallic pigmented coatings;
- (4) Shellacs that may be marketed as primers, sealers, or undercoaters are subject only to the VOC level for shellacs;
- (5) Fire-retardant/resistive coatings that may be suitable for use as any other architectural coatings are subject only to

the VOC level for fire-retardant/resistive coatings;

(6) Pretreatment wash primers that may be suitable for use as primers are subject only to the VOC level for pretreatment wash primers; and

(7) Industrial maintenance coatings that may also be primers are subject only to the VOC level for industrial maintenance coatings.

These exceptions were developed to clarify the applicable VOC level in situations where inherent overlap exists between category definitions, and the least stringent VOC level is meant to apply.

Manufacturers or importers of "recycled" architectural coatings collect, reprocess, and market coatings that contain a percentage of post-consumer coating product. Such use is environmentally beneficial because it reduces the magnitude of waste from architectural coatings. Manufacturers and importers of recycled coatings are given the option of calculating an "adjusted VOC content." The "adjusted VOC content" provides some credit for the amount of post-consumer material contained in the coating. The EPA is providing this credit to encourage recycling of unused paint. The "adjusted VOC content" is determined by multiplying the percentage of post-consumer content of the coating by the VOC content of the recycled coating, which can then be subtracted from the VOC content of the recycled coating. An explicit equation for the calculation is in the proposed rule.

#### D. Compliance Requirements

##### 1. Compliance Dates

The compliance date for all manufacturers and importers is April 1, 1997. In draft versions of the proposed rule, the compliance date for small manufacturers and small importers was January 1, 1998. Small manufacturers and small importers were defined as manufacturers and importers with annual gross revenues in 1995 of less than \$10 million, and total gross revenues in 1995 from sales of all products of less than \$50 million. This extra compliance time has been eliminated from the proposed rule due to the inclusion of less stringent VOC levels for some of the largest categories of architectural coatings, and the inclusion of a variance provision described in sections II.I and V.F. These provisions are expected to provide sufficient compliance flexibility needed by small manufacturers. However, the EPA requests comment on whether the final rule should include the small manufacturer compliance extension. If

such a provision were included, the VOC reduction achieved by the proposed rule in 1997 would be reduced from 20 percent to approximately 15 percent. The EPA also requests comment on the adequacy of the compliance lead time for all affected sources. Comments supporting extra compliance time for all manufacturers and other affected sources should include supporting data providing economic and/or technological justification.

##### 2. Compliance Methods

Compliance with the VOC content levels in the proposed rule is to be determined on a coating-by-coating basis. To determine compliance with the VOC levels in Table 1, manufacturers or importers would first be required to determine the coating category, the applicable VOC level, and the VOC content for each coating product manufactured or imported. An initial report is required for all manufacturers and importers subject to the rule. Other labeling, recordkeeping, and reporting requirements are summarized in sections II.E, II.F, and II.G, respectively. Test methods to be used to determine VOC content of the coatings are described in section II.H.

#### E. Labeling Requirements

With the exception of low solids stains and low solids wood preservatives, containers of all subject coatings must bear labels or lids that include the following information:

- (1) The date of manufacture or a code indicating the date of manufacture;
- (2) The maximum VOC content of the coating in the container, displayed in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases; and
- (3) A statement of the manufacturer's recommendation regarding thinning with organic solvents. Containers of low solids stains and low solids wood preservatives must bear labels or lids that include the following information:
  - (1) The date of manufacture or a code indicating the date of manufacture;
  - (2) The maximum VOC content of the coating in the container, displayed in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds; and
  - (3) A statement of the manufacturer's recommendation regarding thinning with organic solvents.

Containers of industrial maintenance coatings, in addition to the labeling requirements for all subject coatings, must include on the container label or lid the phrase "NOT INTENDED FOR RESIDENTIAL USE."

Containers of recycled architectural coatings, in addition to the labeling requirements for all subject coatings, must include on the label or lid a statement of the percentage, by volume, of post-consumer coating content. This prerequisite must be met to be able to determine compliance using an "adjusted VOC content."

The EPA considered requiring the following statement on every label or lid of architectural coatings: "This architectural coating contains volatile organic compounds that will be emitted to the ambient air during use and, under certain environmental conditions, these compounds may contribute to the formation of ground-level ozone, an air pollutant and major component of urban smog." As an alternative to this requirement, the EPA is considering undertaking an educational effort directed at informing the public about the role of VOC emissions from architectural coatings in the formation of ground-level ozone. The EPA requests comment on whether an outreach effort would be as effective an approach as an educational statement on each container of architectural coating.

The EPA is aware that many architectural coating labels currently display information on the amount of coverage that the coating is expected to provide. The EPA is considering requiring this information to be displayed on the labels or lids of all architectural coating containers. Both coating coverage and VOC content information are necessary to allow a consumer to estimate and compare the expected resulting VOC emissions from application of different coatings to complete a particular job. This information on coating coverage would allow consumers to make an informed choice between coatings. The EPA requests comment on the feasibility of requiring coverage information to be displayed on the label or lid of all architectural coating containers subject to this rule.

#### F. Recordkeeping

Except for recycled coatings, there are no proposed recordkeeping requirements. For recycled coatings, manufacturers and importers must keep the following records for three years:

(1) The minimum percentage of post-consumer coating content for each recycled coating product;

(2) Calculation of an adjusted VOC content that accounts for the post-consumer coating content credit;

(3) The volume of coating received for recycling;

(4) The volume of coating received that was unusable;

(5) The volume of virgin materials; and

(6) The volume of the final recycled coating manufactured.

#### G. Reporting

Manufacturers and importers of coatings subject to the proposed standard must file an initial report. The initial report must be submitted by April 1, 1997 or within 180 days after becoming subject to the requirements of the proposed standard, whichever is later. The initial report must include the following information:

(1) Name and mailing address of the manufacturer or importer; and

(2) A list of categories from Table 1 in which coatings are manufactured or imported.

For recycled coatings, manufacturers and importers must submit an annual report by February 1 of the calendar year following the year in which the coatings are introduced into commerce that includes the following:

(1) The volume of coating received for recycling;

(2) The volume received that was unusable;

(3) The volume of virgin material used;

(4) The volume of the final recycled product; and

(5) The minimum post-consumer content of the coating.

Reporting requirements for the variance application are discussed in II.I.

In cases where a code is used to indicate the date of manufacture, all manufacturers and importers of architectural coatings must file an explanation of each date code displayed on coating containers by April 1, 1997. Explanations of new codes must be filed within 30 days after their first use.

#### H. Test Methods

For purposes of determining compliance with this rule, the VOC content of each coating product manufactured or imported must be determined using the EPA's Reference Method 24, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings," found in 40 CFR part 60, appendix A. Analysis of waterborne coating VOC content determined by Reference Method 24 must be adjusted as described in section 4.4 of Method 24.

Manufacturers and importers may use alternate methods for determining coating VOC content if it can be demonstrated to the Administrator's satisfaction that the method provides results equivalent to or more accurate than those obtained using Reference Method 24.

#### I. Variance

The proposed rule also allows manufacturers and importers of architectural coatings to submit a written application to the Administrator requesting a variance if, for reasons beyond their reasonable control, they cannot comply with the requirements of the proposed rule. The application must include the following information:

(1) The specific grounds for which the variance is sought;

(2) The proposed date(s) by which compliance with the provisions of the rule will be achieved; and

(3) A compliance report reasonably detailing the method(s) by which compliance will be achieved.

Upon receipt of the variance application, the Administrator will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements of the proposed rule is necessary and will be permitted.

The Administrator may grant a variance if the following criteria are met:

(1) By complying with the proposed rule, the applicant would bear unreasonable economic hardship;

(2) The public benefit of avoiding hardship to the applicant outweighs the public interest in any increased emissions or air contaminants that would result from issuing the variance; and

(3) The proposed compliance schedule can be reasonably implemented, and compliance will be achieved as expeditiously as possible.

The approved variance order will designate a final compliance date and a condition that specifies increments of progress necessary to assure timely compliance. A variance shall end immediately upon the failure (of the party to whom the variance was granted) to comply with any term or condition of the variance.

### III. Summary of Impacts

#### A. Environmental Impacts

This section contains a discussion of the incremental increase or decrease in air pollution, water pollution, and solid waste generation that would result from implementing the proposed standards.

## 1. Air Pollution Impacts

The proposed standards would reduce annual nationwide emissions of VOC from the use of architectural coatings by an estimated 96,000 megagrams (Mg) (106,000 tons) beginning in 1997. These reductions are compared to the 1990 baseline emission estimate of 480,000 Mg (530,000 tons) and represent emissions that would occur in the absence of the proposed standards.

Because the VOC emissions from architectural coatings include a large class of compounds that are expected to be associated with a wide spectrum of health effects, reductions in VOC from architectural coatings would result in a decrease in the associated health effects.

Because many regulated VOC species are also hazardous air pollutants (HAP), the proposed standards are expected to reduce some HAP emissions from the use of architectural coatings. An increase in the use of HAP in product formulation is not expected to occur as a result of the proposed standards. Data on speciated VOC content from the VOC Emissions Inventory Survey show no pattern of higher HAP concentrations in lower VOC formulations.

## 2. Water and Solid Waste

The major compliance method for this rule will be the use of compliant coatings. No adverse solid waste impacts are anticipated from compliance with this rule. It is not expected that the disposal of coatings as solid waste will increase as a result of this rule. In fact, because the compliant (higher solids) coatings are more concentrated, fewer containers will require disposal when the same volume of solids is applied.

Some provisions in this proposed rule have the potential to reduce the amount of coating discarded as solid waste. Recycling of coatings may be encouraged through two provisions. The rule includes a provision that allows an "adjusted VOC content" to be calculated for recycled coatings for compliance purposes. This adjustment essentially allows a higher VOC content standard for coatings that contain post-consumer coating. The rule also exempts any coatings distributed through community-based paint exchanges.

In cases where conversion from solventborne to waterborne coatings is the method used to achieve compliance, an increase in wastewater discharge may occur if waste waterborne coatings are discharged to publicly owned treatment works.

## B. Energy Impacts

No adverse energy impacts are anticipated from compliance with this rule. No add-on controls are required.

## C. Cost and Economic Impacts

By establishing a set of product-specific levels for VOC content, the proposed regulations have cost implications for manufacturers and consumers of the affected products. In 1997, manufacturers of architectural coatings that do not meet the VOC levels in Table 1 will be required to reformulate products or remove products from the market (or participate in an alternative compliance mechanism such as an exceedance fee). It is presumed that manufacturers will choose the option that is most advantageous to them, but each option imposes costs, some of which will be passed on to other members of society (consumers) in the form of higher prices and some of which will be borne directly by the manufacturers.

The cost for reformulating noncompliant products depends on the level of effort required to develop a new product (e.g., research and development and market testing expenditures) and how these expenditures are incurred over time. Data on level of effort were provided to the regulatory negotiation committee (see section IV.B for discussion of the negotiation) for prototype reformulations, from which an annualized cost estimate of approximately \$17,772 (in 1991 dollars) per reformulation was computed. This cost is assumed to be independent of the annual sales volume of the product. Other costs and cost savings associated with reformulation are likely, but could not be quantified. Unquantified costs include material cost changes and changes in disposal costs.

An economic impact analysis of the proposed regulatory requirements was performed. Potential cost, price, and output effects for the architectural coatings industry were examined for the proposed table of VOC levels. The economic analysis also evaluated the option of utilizing an exceedance fee, which is an alternative compliance mechanism that is discussed in detail in section V.D. However, the analysis did not consider the impact of any variances or low volume exemptions that may be granted to reduce impacts.

The cost analyses performed were based on data from the 1990 VOC Emissions Inventory Survey. These survey data represented approximately 75 percent of the total volume of architectural coating products produced in 1990. For the products in the survey

population, the estimated average annualized cost, if all products exceeding the VOC levels were reformulated to meet the standard, is \$260 per ton of VOC emissions reduction (in 1991 dollars). This value is extrapolated to the national population for the cost and economic analysis.

With exceedance fees as an option, it was estimated that manufacturers would choose to pay fees for approximately 12 percent of products instead of incurring reformulating costs or exiting the market in 1997. These products only account for about 2 percent of industry output, so the foregone emissions reduction by allowing the fee is less than 0.8 percent (2,308 tons) of estimated baseline emissions. However, the fee reduces national reformulation costs by roughly 50 percent. Thus, it is anticipated that the exceedance fee provision could allow significant cost savings while sacrificing little in the way of emissions reduction.

The estimated market effects from the proposed standards are relatively slight. In 1997, approximately one million liters of architectural coating products, accounting for less than one-tenth of one percent of industry product volume, are projected to withdraw from the market. Price effects in each market ranged from no effect to an increase of less than two cents per liter, which is still less than a one percent increase of the baseline price. Average price and quantity effects across all market segments were each less than one-tenth of one percent of baseline values.

Although relatively little product volume is projected to be withdrawn or subject to an exceedance fee, the remaining volume is subject to reformulation and bears the associated cost. The estimated cost to society of the regulation is approximately \$25.0 million per year (evaluated in 1991 dollars, excluding reporting and recordkeeping costs, and costs to the EPA). These cost estimates amount to roughly 0.4 percent of baseline revenues for the industry. With the exceedance fee alternative compliance mechanism, the estimated annual cost decreases to \$13 million, which equates to a savings of \$12 million.

Resource constraints preclude an evaluation of foreign trade impacts. However, according to a 1992 study by SRI International, importers accounted for less than one percent of total coating sales volume in 1990. Due to importers' small market presence and the lack of detailed product data on imported coatings, importers have not been included in the cost and economic impacts analysis. However, all of the

flexible compliance options that are available for manufacturers are also available for importers. The EPA solicits comment on the potential cost and economic impacts of this rule on importers.

As discussed earlier in this section, the estimated national cost for the regulation is based on information developed by industry representatives during the regulatory negotiation. The assumption in estimating these costs was that coating technologies would need to be researched and developed in the laboratories of resin manufacturers/suppliers and paint manufacturers in order to meet VOC requirements. Although the proposal is significantly less stringent than the potential requirements discussed during negotiations (which would have been implemented in three phases), the EPA has relied on these same reformulation cost estimates for calculating the national cost of the proposed rule. Given that the rule has similar VOC content requirements to State rules which have been enforced since 1990, the EPA believes the reformulation estimates used may be overstated. Since the proposed rule is implementing available resin technologies, the cost to comply for those manufacturers needing to reformulate their higher VOC coatings is expected to be partially reduced through the assistance of resin manufacturers/suppliers. Upon request, most resin suppliers are willing to share information and sample low VOC coating formulations with interested paint manufacturers, both large and small. In addition, another limitation in the cost data is that no distinction for reformulation cost is made between categories (i.e., the reformulation cost in one category is the same as the reformulation cost in any other category), or in relation to the required VOC content reduction (i.e., it does not distinguish between coatings at different VOC levels above the limit). The EPA requests comment and technical information on previous (since 1990) or potential reformulation costs. Commenters on this topic should provide detailed information specific to a given category and VOC content level change (e.g., total number of noncompliant products within each category, VOC content and sales information for each noncompliant product, the applicable category, and the estimated cost of reformulation). The EPA also requests historic information about product reformulations and reformulation costs in response to State and local architectural coating regulation. In

addition, information is requested on any changes in variable (e.g., raw material) costs or disposal costs associated with manufacturing coatings to meet the proposed VOC levels.

#### *D. Cost-Effectiveness*

The EPA often compares the relative cost of different measures for controlling a pollutant by calculating the "cost-effectiveness" of the measures. Using the EPA's traditional calculation methodology, the cost-effectiveness of a regulation that applies nationwide is based on a comparison of national costs and nationwide emission reductions. This comparison is expressed as the cost per Mg (or ton) of emissions reduced. Using social cost and emission reduction figures presented earlier in this section of the preamble, the nationwide cost-effectiveness of the proposed regulation is \$260 per Mg (\$237 per ton).

Alternative ways to calculate a measure of the "cost-effectiveness" of the regulation have been suggested by others. One alternative would be to calculate cost-effectiveness on the basis of the nationwide cost of the regulation (\$25 million for the proposed regulation) and the VOC reduction achieved in ozone nonattainment areas. The stated rationale for this approach is that cost-effectiveness measures should be designed in a way that best represents the objective of the regulatory action. In this case, for example, a major objective, though not the only objective, of these regulations is the control of ozone formation in nonattainment areas. By establishing nationwide standards, the cost of achieving emission reductions in ozone nonattainment areas during the ozone seasons requires nationwide expenditures during all seasons of the year, including expenditures year-round in areas currently in attainment with the current standard. These nationwide emission reductions—including emission reductions outside of nonattainment areas and out of the ozone season—may or may not contribute to efforts to limit ozone in nonattainment areas, depending on whether they participate in ozone transport from one area to another.

The proposed standard will achieve 42,341 Mg of VOC emission reductions in ozone nonattainment areas. Thus, the cost-effectiveness of the rule in limiting VOC emissions in nonattainment areas would be \$590/Mg (\$538/ton). It has been suggested that cost-effectiveness could also be calculated considering the seasonality of ozone formation, and the EPA requests comment on this approach.

While such an approach offers a measure of the cost of emission reductions in nonattainment areas, the EPA sees significant drawbacks to this approach. First, cost-effectiveness figures would no longer provide a consistent basis for comparison of the relative cost of different control measures or regulations considered at different points in time. Because the number and location of nonattainment areas changes frequently, the initial calculation of the cost-effectiveness of a rule would depend upon when it was issued. The EPA believes it is important that cost-effectiveness be calculated in a consistent manner that allows for valid comparisons. Also, introducing new methodology would tend to make new control measures appear superficially to be less cost-effective than measures utilized in the past, simply because of a change in well-established terminology.

Second, this alternative approach attributes all costs of the rule to emission reductions achieved in nonattainment areas and no cost to emission reductions achieved in attainment areas. By not including emission reductions in attainment areas, the methodology assumes that emission reductions in areas which attain the NAAQS for ozone have no value. In fact, attainment areas often contribute to pollution problems in nonattainment areas through the transport of emissions downwind. Also, emission reductions in attainment areas help to maintain clean air as the economy grows and new pollution sources come into existence. Furthermore, measures to reduce emissions of VOC often reduce emissions of toxic air pollutants.

Another alternative that has been suggested would be to calculate not only the emission reductions but also the cost if the requirements applied only in ozone nonattainment areas, perhaps through issuance of control techniques guidelines (CTG). A request for comment and further information on the use of a CTG is discussed in section V(J)(2) of this notice.

The EPA requests comments on the traditional and alternative methods discussed above to characterize the cost-effectiveness of this regulation.

## IV. Rulemaking Decision Process

### *A. Legislative Authority*

Section 183(e) of the CAA gives the EPA the authority to establish national standards to reduce VOC emissions from architectural coatings. According to the CAA, regulations developed under this section shall require best available controls (BAC). Best available

controls are defined in Section 183(e)(1)(A) as follows:

The term "best available controls" means the degree of emissions reduction that the Administrator determines, on the basis of technological and economic feasibility, health, environmental, and energy impacts, is achievable through the application of the most effective equipment, measures, processes, methods, systems, or techniques, including chemical reformulation, product or feedstock substitution, repackaging, and directions for use, consumption, storage, or disposal.

Section V.C describes the EPA's determination of BAC for the proposed regulation.

### *B. Regulatory Negotiation Procedure*

#### 1. Overview of the Regulatory Negotiation Process

The regulatory negotiation process is an alternative to the traditional approach to rulemaking. Negotiations are conducted through an advisory committee (hereafter "the committee") that consists of representatives of the interests significantly affected by the outcome of the regulation (e.g., industry, States, environmental groups, and consumers). In this process, the EPA works closely with the members of the committee to develop the regulation.

The goal of the committee is to attempt to reach consensus on language or issues that can be used as the basis of a proposed rule. If the committee fails to reach consensus, the EPA proceeds with its own regulatory development approach.

#### 2. History of the Architectural Coatings Regulatory Negotiations

The EPA recognizes that there are many issues and challenges in developing, proposing, and promulgating a rule for this source category. In early 1992, the EPA held three meetings with representatives of the industry (including small and large manufacturers), trade associations, resin suppliers, States, and environmental groups to discuss the potential scope of the regulation and issues, share information, determine data collection needs, and assess whether a regulatory negotiation would be appropriate for this industry.

On July 16, 1992, the EPA solicited comments on its intent to form an advisory committee under the authority of provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. app. II 9(c), and the Negotiated Rulemaking Act (NRA), 5 U.S.C. Sections 581-590, to negotiate a proposed regulation for architectural coatings, referred to in the notice as AIM (architectural and industrial maintenance) coatings. The

EPA held a meeting in July 1992 to discuss the feasibility of conducting regulatory negotiations to develop a regulation for architectural coatings. Based on the interest of the potentially affected parties and the EPA, the EPA decided to proceed with the regulatory negotiation process. After publishing a notice of establishment of the regulatory negotiation committee in the Federal Register on October 2, 1992 (57 FR 45597), the first official regulatory negotiation meeting was held in October 1992 (57 FR 45597).

The members of the regulatory negotiation committee represented the affected industries, consumers, Federal agencies, State and local air pollution control agencies, environmental groups, and labor organizations. Regulatory negotiation meetings were held from October 1992 to February 1994. During the negotiation process, it became evident that certain groups of committee members shared similar views and interests. These groups were called "caucuses."

During the negotiations, most of the caucuses submitted proposed regulations for review by the rest of the committee. Based on elements from the caucus proposals and discussions, a number of "frameworks" for a potential regulation were prepared by the EPA and the facilitator during the more than two years of negotiation. Despite these efforts, the committee could not reach consensus on a regulatory framework. Therefore, on September 23, 1994, the negotiations facilitator notified each of the committee members that the regulatory negotiations were concluded without consensus. Following this decision, the EPA continued development of the rule. The EPA used the information obtained in the negotiations to develop the proposed rule. The proposed rule development was, therefore, assisted in part through the regulatory negotiation. Specifically, information on the volume, VOC content, and HAP content of coatings produced in 1990 was collected in the VOC Emissions Inventory Survey conducted by industry. Categories and definitions for architectural coatings were presented and discussed both in caucus meetings and meetings of the entire committee.

### V. Rationale

The following sections explain the rationale for selecting the proposed standards.

#### *A. Applicability*

These proposed standards apply to all architectural coatings that are manufactured or imported for sale or

distribution in the United States on or after April 1, 1997. Architectural coatings were determined to be a significant source of VOC emissions in nonattainment areas and were designated for regulation under the authority of Section 183(e) of the CAA.

In general, architectural coatings protect the substrates to which they are applied from corrosion, abrasion, decay, ultraviolet light damage, or the penetration of water. These coatings are recommended for field application to stationary structures and their interior or exterior appurtenances, portable buildings, pavement, and curbs. The definition in the proposed regulation includes the term "field application" and specifies "stationary structures" in order to distinguish architectural coatings from those coatings applied at a coating or recoating facility or other shop or maintenance facility.

Some architectural coatings have specialized functions. Concrete form release compounds and concrete curing compounds are examples of architectural coatings that are used during construction, rather than being used for protecting or enhancing the finished structure. Fire-retardant/resistive coatings and traffic marking coatings have important public safety functions. Coatings may also increase the aesthetic value of a structure by changing the color or texture of its surface. Application of architectural coatings also decreases maintenance costs associated with stationary structure replacement or repair. Input received during negotiations from committee members was used to take these economic, protective, safety, and aesthetic benefits of architectural coatings into consideration in the development of these proposed standards.

The proposed standards do not apply to some types of coatings. There are exemptions for exported coatings, coatings manufactured or imported prior to April 1, 1997, coatings that are sold in nonrefillable aerosol containers, coatings that are collected and redistributed at community-based paint exchanges, and coatings that are sold in containers with a volume of one liter or less.

The purpose of Section 183(e) of the CAA is to control VOC emissions that contribute to ozone nonattainment in the United States. Because exported coatings do not contribute to VOC emissions in the United States, and because the EPA has no legal or factual basis to impose VOC control measures outside the United States, coatings manufactured for the explicit purpose of export and which are in fact exported



are exempt from the requirements of the proposed rule. Coatings manufactured and imported prior to April 1, 1997 are exempted because the compliance date for the proposed rule is April 1, 1997. An exemption for coatings sold in nonrefillable aerosol containers is included in the proposed rule because the EPA is addressing these coatings separately under Section 183(e) authority. The reason is because aerosol paint is considered a specialty paint product and typically involves a specialized division within a paint company. In addition, it is a complex category due to the many subcategories of aerosol paint, and the range of options to reformulate include the potential to change propellant formulations.

Community-based paint exchanges are programs in which the general public may drop off and pick up post-consumer architectural coatings (leftover paint), typically free of charge, and thereby reduce household hazardous waste. The exchanges occur between users and not manufacturers. Even though these coatings may be repackaged and the proposed regulatory definition of "manufacturer" includes repackagers, repackaging that occurs at community-based paint exchanges is specifically excluded from the definition. These programs are consistent with the EPA's pollution prevention policies and are generally considered effective in minimizing waste. Because the EPA wants to encourage this form of recycling, the EPA has excluded paints exchanged in these programs from the proposed rule.

An exemption for products sold in containers with capacities of one liter or less is included in the proposed rule as means for manufacturers and importers to keep selected products on the market. Similar exemptions are included in State regulations. Due to the increased cost of packaging products in smaller size containers, and the increased bulk of multiple containers, the EPA would not expect a marked increase in the number of products sold in small volume containers as a result of the exemption. No reporting or recordkeeping would be required for this provision.

#### *B. Regulated Entities*

In contrast to traditionally regulated stationary sources that emit VOC at a specific fixed location (e.g., a manufacturing plant), VOC from architectural coatings are emitted wherever the products are used. For this reason, regulating at the manufacturer and importer level is the most efficient and least burdensome method of

regulating the VOC content of coatings, and would ultimately impact the VOC content of architectural coatings at the distributor and end user level.

Regulated entities are defined under Section 183(e) to include processors, wholesale distributors, and those entities that supply manufacturers, processors, wholesale distributors, and importers. However, regulated entities in this proposal are limited to architectural coating manufacturers and importers.

The EPA is also considering including "processors" as a regulated entity. Processors would be defined to include individuals who add organic thinner to the coating in a commercial setting at the point of application. Commercial settings would include industrial applications of architectural coatings. This would allow the regulation to prohibit an applicator from using organic solvents to thin a coating beyond the manufacturer's recommendation. This is a concern because if an applicator exceeds the maximum recommended thinning, expected VOC reductions may not be achieved. The EPA requests comments on this approach.

#### *C. Selection of Best Available Controls (BAC)*

The primary factors considered in determining BAC were technological and economic feasibility, and environmental impacts. Other factors, such as non-air-environmental impacts (solid waste and water) and energy impacts, are expected to be minimal and therefore do not vary significantly among various VOC control levels. Health impacts are expected to parallel environmental impacts in terms of directional benefit (i.e., as the environment improves, health improves).

The process of determining BAC for architectural coatings presented a new challenge for the EPA. In the past, control levels for VOC emissions from coatings were often established based on the ability to use add-on controls. For architectural coatings, the method for achieving VOC reduction is through reformulation, which is a pollution prevention technique. Reformulation could involve minor adjustments in coating formulation or larger adjustments involving a change in resin technology.

The EPA considered many factors in evaluating economic and technological feasibility of VOC levels (i.e., degree of reformulation). These include State and local VOC requirements, VOC content and sales information, technical information, performance

considerations, cost considerations, market impacts, and stakeholder positions.

The discussion in section V.C.1 focuses on the general process used to determine categories and VOC levels that constitute BAC. The discussion in V.C.2 describes the selection of BAC. The determination of what constitutes BAC by April 1, 1997 involved consideration of what is economically and technologically feasible in light of the lead time available for compliance.

#### *1. Process for Selection of BAC*

The process of determining BAC began with the collection of information from existing State and local architectural coating requirements. The EPA focused generally on existing categories and associated VOC limits in State architectural coating rules to determine what categories and VOC levels might constitute the degree of emissions reduction that represents BAC. Since California has been regulating architectural coatings for almost two decades and generally has the most stringent VOC limits in the country, some California air quality management district regulations were gathered and the record underlying these regulations was analyzed. The EPA recognizes that what is achievable now in California cannot necessarily be used to extrapolate what is achievable nationwide in 1997. Adequate consideration must be given to lead time, and any other factors that may influence the ability to apply requirements nationwide (e.g., climate considerations).

After analyzing existing standards, the EPA reviewed the data from the Emissions Inventory Survey that was developed during the regulatory negotiation process. The regulatory negotiation committee developed the survey that was administered through an industry trade association. This survey accounted for roughly 75 percent of the volume of architectural coatings sold in 1990. The survey data included information on the volume and VOC content of coatings. Manufacturers were surveyed primarily using a system of coating categories that form the basis for existing rules in several California districts. The survey data were used to identify the minimum VOC contents needed for certain applications and/or resin types as well as to determine the feasibility of establishing lower VOC levels for various categories based on the distribution of coating sales with respect to different VOC content levels.

The EPA also relied on technical input and information received during the regulatory negotiation process to

determine BAC. The EPA considered information that was submitted to the docket by coating manufacturers and other members of the general public during the course of the regulatory negotiations, and definitions for categories found in other EPA regulations. The expertise of the EPA's engineering staff also was used to develop the appropriate definitions that would minimize overlap and specify characteristics so that manufacturers and enforcement personnel can identify the applicable category for each coating on the market.

The Emissions Inventory Survey did not provide data to answer the question as to whether coatings at a given VOC level can meet all the performance needs within a particular category. Ideally, coating performance data in addition to VOC content and sales data would have been gathered to better aid this type of determination. Collection of performance data, however, is complicated due to the subjective nature of performance requirements.

"Acceptable" performance is difficult to evaluate. In evaluating potential emissions of VOC into the environment, acceptable performance means durable coatings with qualities acceptable to the consumer that would maximize the interval between required repaintings. These acceptable qualities can vary significantly depending on the consumer and the coating category. For example, durability might be of limited value in evaluating house paint since a house paint may be painted over due to extraneous factors such as resale of the house or redecorating long before the coating begins to fail. For coatings used in an industrial setting, such as high temperature and industrial maintenance coatings, repainting is more dependent on durability considerations. A variety of performance levels within most coating categories presently exist in the marketplace and will continue to exist after regulation.

Because there is no consensus within the architectural coating industry on standards by which to evaluate acceptable coating performance, it was not obvious what performance data could be gathered to permit comparison. The EPA relied to some extent on input from the negotiation committee to determine the BAC VOC level within each coating category that would allow customer performance needs to be met. Beyond that, the EPA also relied on the survey results as support for its conclusions about the achievability of various VOC levels in light of performance needs. Although the EPA recognizes that the authority under Section 183(e) does not limit BAC

determination to coatings available in the marketplace today, availability and the fact that customers are purchasing coatings at a particular VOC content level to meet their performance needs were significant factors in the EPA's BAC determination process.

While low VOC coatings are available today which meet the proposed coating VOC limits, there continues to be debate over the performance characteristics and perceived limitations of low VOC architectural coatings. This issue was raised by some industry representatives during development of the proposed rule. Specifically, it has been argued that low VOC content levels may be counterproductive if the use of coatings with reduced VOC results in more coating applied, more thinners needed, and more frequent recoating, and consequently, more emissions. This argument has been made broadly, without detail as to the VOC content levels to which it pertains or the categories involved. The EPA is aware of numerous examples of low VOC systems which perform better than the traditional higher VOC systems and which result in less emissions. The EPA requests documentation, test results, or factual evidence which either supports or refutes claims about performance changes in coatings with VOC contents that comply with the proposed standards.

In addition, the EPA relied on the background and expertise present within the Agency to make decisions regarding category selection and corresponding VOC content levels. The EPA has developed VOC standards and guidance documents for different sectors of the paint industry since 1977. The EPA has expertise in analysis of control techniques for coatings and in developing test methods for coatings, including the test method used to determine the VOC content of coatings (Method 24).

The BAC selection process involved both selection of categories and determination of VOC content levels. These components are linked in a determination of what degree of emissions reduction represents BAC. Decisions to subdivide a given category into more specific subcategories can be a direct consequence of the VOC content levels under consideration. For example, the industrial maintenance coating category is fairly broad and encompasses many industrial coating applications. As the technological and economic feasibility of lower VOC content levels are considered for the industrial maintenance category, coatings within a particular application may not be able to meet the VOC level

under consideration. Rather than establish the VOC level high enough to allow this particular application, the category can be subdivided to create another category that would then allow the achievable VOC content for industrial maintenance to be lower. For example, the "high temperature coating" category was created to allow a more stringent VOC level for the broader category of "industrial maintenance coatings," which otherwise would have included high temperature coatings. Rather than raise the VOC content level for all the industrial maintenance coatings to ensure that high temperature coatings could achieve this level, the EPA created a separate, less stringent VOC level for high temperature coatings while maintaining the more stringent level achievable for other types of industrial maintenance coatings. Thus, it is possible to achieve lower VOC levels and greater emission reductions while still meeting the performance needs of some coating categories by further subdividing particular categories. Stains and wood preservatives have both been subdivided into clear and semitransparent, and opaque coatings. This subdivision of categories helps preserve markets while still achieving emission reductions.

During development of the proposed rule, some industry representatives provided requests for particular categories to be created and given a higher VOC level than the VOC level for the more general category in which it would otherwise be grouped. Categories for which adequate justification was presented appear in the proposed rule. However, in cases where significant overlap between the requested category and other existing categories was apparent and the overlap could be expected to undermine the degree of emission reductions achieved, the category was not included in the proposal. The categories and definitions in the proposed rule are roughly consistent with the categories and definitions presented during negotiations.

For the BAC determination, the EPA generally focused on the coating categories that contribute the largest amount of VOC to the environment.

## 2. Determination of BAC

A primary consideration affecting the selection of VOC content levels that EPA believes represent BAC was the need expressed by many industry and regulatory stakeholder representatives to proceed with development of these standards as quickly and expeditiously

as possible. State and local agencies and representatives of industry who market products in different States have expressed concern about the lack of Federal VOC standards for architectural coatings. For this reason, the EPA has focused on establishing VOC levels that would take effect in 1997. An expedited rulemaking process for this proposed rule is necessary to fulfill the expectations and reliance of the States and to give coating manufacturers timely notice of requirements. Therefore, EPA based the BAC determination on VOC content levels that could be achieved in a short time frame (by April 1, 1997). As discussed in section II.D.1 of this preamble, EPA requests comment on the adequacy of this compliance lead time.

The EPA attempted to gather specific information with which to determine the technological and economic feasibility of different VOC limits that would take effect in 1997. The following paragraphs discuss this information and how EPA used it to determine BAC.

Fourteen categories which appear in the proposed rule and which are found in existing State standards were included in a list of categories developed during the regulatory negotiation referred to as "low volume." These are anti-graffiti coatings, bituminous coatings and mastics, bond breakers, concrete curing compounds, fire-retardant/resistive coatings (clear/pigmented), form release compounds, graphic arts coatings (sign paints), high temperature coatings, magnesite cement coatings, mastic texture coatings, multi-color coatings, pre-treatment wash primers, sanding sealers, and swimming pool coatings. The VOC content levels in Table 1 for these categories are in the upper range of the VOC content limits found in existing State rules. The industry argued that these coatings represent unique compositions and specialized uses, and the imposition of lower VOC levels on these categories would probably result in an adverse economic impact on the manufacturers and may even have a disproportionate effect on small manufacturers. Because these coatings are used in relatively low volumes and in a limited range of circumstances, the EPA has determined that it should set VOC levels for these coatings based on the justification presented by the industry and that additional effort to collect more data is not warranted in the development of this proposal. After proposal, the EPA plans to reevaluate the feasibility of more stringent VOC levels for these categories as part of the joint study with industry that is described in section VI.

In addition to the 14 "low volume" categories discussed, the VOC Emissions Inventory Survey contains 12 categories that represent about 75 percent of the VOC emissions (industrial maintenance, interior nonflat, exterior nonflat, clear and semitransparent stains, clear waterproofing sealers and treatments, interior flat, roof coatings, primers and undercoaters, traffic markings, exterior flat, varnishes, and lacquers). For these 26 categories and an additional 15 categories contained in the survey, sales and VOC content data indicate that coatings are available that can achieve the VOC content levels listed in Table 1. The fact that the survey reveals that coatings are available that meet today's proposed standard is one factor that supports the conclusion that these coatings are economically and technologically feasible.

During regulatory negotiation discussions of potential VOC content limits, 17 additional specialty coating categories were added to the list of categories under consideration. These categories were generally offered as a result of discussion of specific VOC content levels for more general and broad categories such as industrial maintenance coatings. These specialty coating categories did not appear in any existing State architectural coating regulation and, excepting high performance architectural coatings, were not categories for which data were collected in the VOC Emissions Inventory Survey. These 17 categories include alkali-resistant primers, antenna coatings, antifouling coatings, chalkboard resurfacers, concrete protective coatings, extreme high durability coatings, floor coatings, flow coatings, heat reactive coatings, high performance architectural coatings, impacted immersion coatings, lacquer stains, nonferrous ornamental metal lacquers and surface protectants, nuclear coatings, repair and maintenance thermoplastic coatings, rust preventative coatings, and thermoplastic rubber coatings and mastics.

Fourteen of these 17 additional specialty coating categories appear in today's proposal because discussion during negotiations and/or petitions from individual companies provided support for inclusion of these categories and an associated VOC content level separate from the broader category and level to which they otherwise would have been assigned. No data were available to the EPA to conclude that lower VOC content levels for these categories would represent BAC.

Three of these 14 categories which appear in the rule, antenna coatings, antifouling coatings, and nuclear coatings, were assigned VOC content levels consistent with those found in the EPA's National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (59 FR 62681). These VOC levels were based primarily on information contained in the EPA's Alternative Control Techniques (ACT) Document: "Surface Coating Operations at Shipbuilding and Ship Repair Facilities," EPA-453/R-94-032.

Two of the three specialty categories that do not appear in the proposed rule are alkali-resistant primers and lacquer stains. Although the EPA considered inclusion of alkali-resistant primers based on requests from some manufacturers, it was excluded for two reasons. Significant overlap between alkali-resistant primers and the more general primer category is apparent, and comments were received about the ability of latex coatings (lower VOC coatings) to perform the function of alkali-resistant primers. For lacquer stains, although arguments were presented about the need for the category, the overlap between lacquer stains and the more general stain categories would allow the higher VOC lacquer stain for uses in which lower VOC stains would be acceptable substitutes. In order to attain the degree of emission reductions achievable, these categories are excluded in the proposed rule. The coatings that would have been classified into these categories would be subject to the VOC level of the more general category of either primers or stains, as applicable.

The third coating category that was surveyed in the VOC Emissions Inventory Survey, but does not appear in the proposed rule, is "high performance architectural (HPA) coatings." Several industry proposals presented to the regulatory negotiation committee contained a definition and VOC standard for HPA coatings with subcategories for concrete protective coatings, floor coatings, and rust preventative coatings. However, the information available to the EPA does not support a need for a broad HPA category. Rather than including a separate, broad category of HPA coatings, the proposal contains separate definitions and VOC levels for concrete protective, floor, and rust preventative coatings. These subcategories were specifically identified during negotiations, and arguments were presented for VOC levels and definitions. These categories have specific performance requirements such

as prevention of water and chloride ion intrusion (concrete protective coatings), abrasion resistance (floor coatings), and prevention of the corrosion of metals (rust preventative coatings).

In April 1995, architectural coating industry representatives submitted recommended VOC content limits for BAC to the EPA. These industry representatives reported that these limits were developed based on extensive negotiations within the industry to determine what is economically and technologically feasible. Today's proposed VOC requirements are consistent with those in the proposal submitted by these industry representatives.

The EPA requests comment and any supporting data on the appropriateness of inclusion or exclusion of the 17 additional specialty categories and the VOC content levels assigned to all of the categories included in the proposed rule. For comments supporting exclusion of a category, the supporting argument should include data to show why the category under consideration could be expected to meet (consistent with performance needs) the VOC levels applicable to the more general category to which it would revert back in the absence of the specific category. For comments supporting inclusion of a category, the request should be accompanied by a detailed explanation of the need for the category, and data on why lower VOC coatings would not be acceptable substitutes.

In addition, the EPA requests information on any coating category where recent progress in low VOC resin systems has resulted in new low VOC coatings being introduced into the market since 1990. The EPA requests comments on the ability of coatings with VOC content levels lower than those in Table 1 to meet the performance needs within the category.

#### *D. Exceedance Fee Approach*

An exceedance fee economic incentive approach is being considered for inclusion in the architectural coating rule. Under this approach, manufacturers and importers would have the option of paying a fee, based on the amount that VOC content levels are exceeded, instead of achieving the VOC content levels listed in Table 1.

The fee would be calculated at an initial rate of \$0.0028 per gram (\$2,500 per ton) of VOC in excess of the applicable VOC level, multiplied by the volume of coating produced. For example, if a coating is 50 grams of VOC per liter over the applicable VOC standard, the fee rate would be approximately 14 cents per liter (\$0.0028

per gram multiplied by 50 grams per liter). The fee rate is in the upper end of the range of the incremental VOC reduction cost imposed by VOC regulations for other source categories. The EPA believes this rate is appropriate because the exceedance fee rate is intended to provide compliance flexibility, but also be high enough to encourage reformulation to meet the applicable VOC level. This rate would be adjusted for inflation periodically.

For all but two categories, the volume of coating produced is determined excluding the volume of any water, exempt compounds, or colorant added to tint bases to be consistent with the units of the VOC content level. For the two "low solids" categories (low solids stains and low solids wood preservatives), the volume is determined "including water and exempt compounds" to be consistent with the units of the VOC content level for these coatings. The exceedance fee would be paid quarterly to the Administrator and would be due no later than two months after the end of the quarter in which the coating is manufactured or imported.

The fee option could be expected to provide transition time for those manufacturers that desire additional time to obtain lower VOC technologies. It could also provide a less costly compliance approach for manufacturers selling very low volume products.

Under the exceedance fee approach, manufacturers and importers would be required to keep records and submit reports detailing the following information for all coatings for which fees are paid: VOC content, excess VOC content above the standard, volume of product manufactured or imported, product quarterly fee, and the total quarterly fee for all products.

Section 183(e) specifies that fees collected must be deposited in a special fund. Specifically, under Section 183(e)(5) of the CAA, funds collected pursuant to the regulation of consumer and commercial products:

\* \* \* shall be deposited in a special fund in the United States Treasury for licensing and other services, which thereafter shall be available until expended, subject to annual appropriation Acts, solely to carry out the activities of the Administrator for which such fees, charges or collections are established and made.

The Congress, through the annual appropriations process, will determine whether and how to spend any fee revenues collected. The Administrator, however, may make recommendations to Congress concerning use of any funds collected. Therefore, the EPA today seeks comment on how the revenues

should be spent should the proposed exceedance fee option be promulgated as part of the final rule. The EPA believes that it may be possible to construe the statutory language on potential uses of the money either broadly, to authorize spending for a wide variety of activities related to reducing ozone, or more narrowly. In particular, the EPA requests comment on whether these revenues should be used for:

(1) Grants or awards to promote the development of lower VOC architectural coating technologies by private firms, or by other governmental or nongovernmental entities;

(2) Purchase by the government of VOC emission reduction credits from private firms or emission credit brokers;

(3) State and EPA administrative and enforcement costs in carrying out architectural coating rules, or other rules to reduce VOC emissions from consumer and commercial products; or

(4) Other possible uses.

In addition to comments on the use of exceedance fees, the EPA seeks comment on the exceedance fee rate, and recordkeeping and reporting associated with this option.

#### *E. Low Volume Categories/Exemption*

The EPA recognizes that there may be some low volume, specialty niche products for which it may not be cost effective for either the manufacturer or resin supplier to develop a lower VOC formulation. The Agency addressed this concern during the regulatory negotiation by developing many new specialty categories and definitions which have been subsequently included in the proposed rule. To evaluate what further steps may still be needed to accommodate niche coatings within the proposed rule, the EPA requests detailed information on the following:

(1) Identification of any specialty coatings which do not comply with Table 1. (specify coating category from Table 1 in which the product would be classified) and that cannot be cost-effectively reformulated, (2) the sales volume and VOC content of each identified product, (3) detailed cost estimate for reformulation (e.g., man-years, and product testing expected to be involved) and (4) whether a lower VOC alternative product currently exists in the market which can adequately substitute for the identified specialty product.

EPA will consider developing additional categories for newly identified niche markets in the final rule. In addition, based on reformulation cost, sales volume, and VOC emissions information gathered in

response to the above request on low volume products, the EPA will evaluate the option of a categorical exemption for any new or existing low volume specialty categories. Alternatively, although no coating manufacturers have requested that EPA consider a low volume exemption, the EPA will consider establishing a low volume cut-off, under which a coating may be exempt from regulation. These approaches would allow these low volume, specialized products to remain on the market. Under the low volume exemption concept, any manufacturer or importer may request an exemption from the VOC levels in Table 1 for specialized coating products that are manufactured or imported in quantities less than a specified number of gallons per year. This exemption would require an annual report, recordkeeping, and labeling.

A major issue with this type of an exemption is where to set the cut-off. The EPA would design any low volume exemption to avoid significant loss in emission reductions. The EPA has limited data with which to evaluate an appropriate cut-off level. The EPA requests comment on a cut-off in the range between 1,000 and 5,000 gallons per year.

A manufacturer or importer applying for this type of exemption would need to submit an annual report. This report would contain a written request for the exemption, a list of the coating products for which the exemption is being requested, a statement signed by a responsible official that the sales of each product for which the exemption is being requested will not exceed the cut-off established, and documentation and a statement signed by a responsible official that each product serves a specialized use which cannot be cost-effectively replaced with another, lower VOC product. In addition, the report would contain the following information for each product for which the exemption is being requested: the name of the product, the specialized use, the sales of the product in the previous year, and the VOC content of the product. The EPA can waive this reporting requirement on a case-by-case basis if the information from each year is essentially the same. Whether or not reporting is waived, the company would be required to keep records for a three year period sufficient to demonstrate upon request that the product qualified for the exemption. A company that sold more than the cut-off amount of a product for which the exemption was claimed would be in violation of the rule and subject to the same penalties as

any company producing coatings in violation of the VOC content limits.

In addition, the following statement would need to be placed on the label or lid of each container of coating for which the exemption is being applied: "This is a specialized architectural coating produced in volumes less than X gallons per year." The labeling requirement would serve to identify these coatings to enforcement personnel.

The EPA's goal would be to set the volume cut-off for this exemption low enough such that it would not significantly impact the VOC emission reductions achieved by the rule, yet high enough such that, if needed, it could be expected to be used by a number of smaller manufacturers and importers for their low volume products.

The EPA requests comment on whether a low volume exemption would have any disadvantages. Such an exemption might create an incentive for some companies to circumvent the rule by taking a higher volume product and marketing (with or without any variations in formulation) as several separate products, each meeting the sales volume cut-off. Also, some may perceive that a low volume exemption would give competitive advantage to higher polluting, low volume products.

The EPA requests comments on whether this exemption should be included in the final rule and on the following specific aspects of this exemption: (1) What would be an appropriate cut-off level? (2) To what degree would a low volume exemption aid small manufacturers and importers in complying with the rule? (3) To what extent would the exemption be used if included in the regulation? (4) Would such an exemption be equitable? (5) Would such an exemption create incentives for circumvention of the rule?

#### F. Special Provisions

This section contains a description of the rationale for the recycled coating and variance provisions that are included in the proposed standard.

##### 1. Recycled Coatings

The proposed regulation allows manufacturers and importers VOC credit for recycling post-consumer coatings. Post-consumer coating is unused coating that has been previously purchased by a consumer, and is subsequently combined with virgin materials and offered for sale as a recycled coating. The proposed credit for recycled coating content is demonstrated in the following example:

If a coating has a VOC content (calculated as prescribed in § 59.404 of the regulation) of 400 grams per liter of coating and contains 10 percent recycled coating, then 10 percent of the calculated VOC content (40 grams per liter) is subtracted or credited to give an adjusted VOC content of 360 grams per liter. Compliance is determined based on the adjusted VOC content.

The calculation of an adjusted VOC content is included in the proposed regulation to encourage recycling by providing flexibility to manufacturers of recycled coatings. Recycling these coatings eliminates the need for their disposal (some unused coatings may be considered hazardous waste) and reduces the amount of new coating that must be manufactured.

The EPA recognizes the inherent difficulties associated with enforcing the credit associated with the recycled coating provision. It is not normally possible to determine the fraction of post-consumer content by analytical means. Therefore, enforcement would be through an evaluation of reports submitted by manufacturers or importers of recycled coatings (see section II.G) and a comparison of these reports to claims of recycled content on the labels of coatings. The EPA requests comment on this VOC credit for recycled coatings and the enforcement of such a provision.

##### 2. Compliance Variance.

The proposed rule includes a variance provision whereby manufacturers and importers of subject architectural coatings may apply to the Administrator for a temporary variance from compliance with the standards. A variance will be granted if the applicant demonstrates that compliance would result in economic hardship, and that granting the variance would better serve the public interest than would requiring continuous compliance under the conditions of economic hardship. The EPA intends for this provision to allow manufacturers and importers some flexibility in responding to unforeseen circumstances that may cause additional, unanticipated compliance burden. The EPA recognizes that certain interruptions in the availability of raw materials and or manufacturing processes may affect the manufacturer's or importer's ability to continuously comply with the standards. In particular, the EPA anticipates that this variance provision will help to mitigate impacts to small manufacturers. Within the architectural coatings industry, small manufacturers are likely to have fewer research and development

resources, and therefore, will benefit from the allowed variance.

### *G. Labeling and Public Information Requirements*

#### 1. Containers of All Subject Coatings

The proposed regulation requires that containers for all subject coatings display on the label or lid the date of manufacture (or a code indicating the date) and the maximum VOC content in the coating. The date of manufacture on the label or lid allows enforcement personnel to determine whether the coating was manufactured prior to April 1, 1997.

Section 183(e) of the CAA specifically authorizes the EPA to require certain labeling and informing of the public as mechanisms for control of VOC emissions from consumer and commercial products. The proposed standards include labeling requirements that not only allow the EPA to verify compliance with the VOC content levels but also to inform consumers about VOC content. Such labeling, with appropriate consumer education, might provide an incentive to consumers to purchase coatings that will emit less VOC, and to manufacturers and importers to manufacture or import lower VOC content coatings.

As described in section II.E, the EPA is considering two other labeling requirements. The EPA is considering a requirement to include on the label of each coating an educational statement about VOC emissions, and their potential contribution to ground-level ozone. The EPA requests comment on whether an outreach effort would be as effective an approach as an educational statement. Also, the EPA is considering a requirement to include coating coverage information on all architectural coating labels. Comment is requested on the feasibility of this requirement.

#### 2. Containers of Industrial Maintenance Coatings

In addition to the general labeling requirements for all architectural coatings, containers of industrial maintenance coatings (as defined in § 59.401 of the proposed regulation) must also include on the label or lid the phrase "NOT INTENDED FOR RESIDENTIAL USE." Section 183(e) of the CAA provides authority to include in the regulation directions for use of the product. The proposed VOC levels for industrial maintenance coatings were set based on more rigorous performance specifications than those needed for residential applications. While this labeling requirement is

intended to discourage consumers from applying industrial maintenance coatings in a residential setting where a lower VOC coating with less rigorous performance specifications may be adequate, it does not prohibit the use of industrial maintenance coatings in a residential setting where extreme environmental conditions are present and for which an industrial maintenance coating would provide the most viable protection from these conditions.

#### 3. Containers of Recycled Architectural Coatings

Containers of recycled architectural coatings, in addition to the requirements listed previously for all subject coatings, must also display a label that includes the statement "CONTAINS NOT LESS THAN X PERCENT, BY VOLUME, POST-CONSUMER COATING," where X is replaced by the percentage, by volume, of post-consumer coating. Inclusion of the recycled coating content is necessary for compliance purposes to identify coatings for which an adjusted VOC content has been calculated.

### *H. Selection of Recordkeeping and Reporting Requirements*

The EPA evaluated what recorded and reported information would be sufficient to ensure compliance with the VOC levels. The recordkeeping and reporting requirements proposed are necessary to allow determination of compliance, and the EPA believes they do not represent an undue burden on manufacturers or importers of architectural coatings. For all but the initial report, recordkeeping and reporting are only required for manufacturers and importers who choose to take advantage of optional provisions, including the calculation of an adjusted VOC content (based on post-consumer coating content), the variance provision, or the exceedance fee approach that is under consideration.

For coatings for which the manufacturer or importer chooses to demonstrate compliance by meeting the VOC content levels in the proposed table (Table 1), enforcement personnel can compare the VOC content of the product to the VOC content statement on the label to establish compliance or noncompliance. Therefore, there are no reporting or recordkeeping provisions for the manufacturers and importers of these coatings beyond initial notification. The initial report serves to notify the EPA of the identity of the universe of all manufacturers and importers subject to the standards.

The proposed rule includes reporting and recordkeeping requirements for coatings that contain post-consumer coating and for which an adjusted VOC content is reported for compliance purposes. Manufacturers and importers must maintain the required records for these coatings for a period of three years. The required recordkeeping and initial reports are essential for the EPA to determine whether coatings are in compliance.

Manufacturers or importers that choose to apply for a variance are required to submit a variance application to the Administrator. The purpose of this application is for the applicant to provide the Administrator with sufficient information on which the decision to grant, or not to grant, the variance can be made.

The reporting and recordkeeping requirements for the exceedance fee approach and low volume exemption that is under consideration for inclusion in the final rule is discussed in section V.D., and V.E. respectively

### *I. Test Methods*

Under the proposed provisions, compliance with the VOC content levels is based on the EPA's Reference Method 24. This is the EPA's standard test method for determining the VOC content of coatings.

A provision allowing use of alternative methods of determining VOC content subject to the Administrator's approval is also included in the proposed rule.

### *J. Alternative Regulatory Approaches*

#### 1. Other Systems of Regulation.

Section 183(e)(4) allows the EPA to consider "any system or systems of regulation as the Administrator may deem appropriate, including requirements for registration and labeling, self-monitoring and reporting, prohibitions, limitations, or economic incentives (including marketable permits and auctions of emission rights) concerning the manufacture, processing, distribution, use, consumption, or disposal of the product." Accordingly, the EPA requests comment on any alternative to the proposed system of regulation.

#### 2. Regulation with the Use of CTG

Section 183(e)(3)(C) gives the EPA the flexibility to "issue control techniques guidelines under this Act in lieu of regulations required under subparagraph (A) if the Administrator determines that such guidance will be substantially as effective as regulations in reducing emissions of volatile organic

compounds which contribute to ozone levels in areas which violate the national ambient air quality standard for ozone."

In many cases, a CTG can be an effective approach to reduce emissions of VOC in nonattainment areas without imposing control costs on attainment areas. For example, a CTG may effectively reduce VOC emissions from commercial products used in industrial settings where the targeted emissions occur at a point of end use which is readily identifiable, and at a fixed location. However, a CTG may not be as effective as a regulation to reduce emissions in nonattainment areas for architectural products because these products are easily transportable and widely distributed. This is because an architectural coating CTG would prohibit the sale of noncompliant architectural coatings in nonattainment areas. A CTG would have the potential compliance problems associated with noncompliant products being transported into nonattainment areas from neighboring areas and neighboring states. In contrast, a regulation could require modification of the product itself. Since all products would be subject to the same requirements, this would help ensure effective enforcement and implementation in all areas.

It is expected that an architectural coating national rule would reduce costs of compliance for companies serving national or large regional markets by promoting consistency in VOC requirements across the country. In addition, a national rule would help reduce recordkeeping and reporting for those manufacturers who sell products in both attainment and nonattainment areas. To evaluate the benefits (i.e., reduction in cost) to manufacturers from the consistency aspect of a national rule, the EPA requests detailed information from manufacturers on the cost to comply with a variety of State standards. In particular, the EPA requests comment on the administrative cost burden (inventory tracking, distribution, labeling, and tracking of State architectural coating regulation development) expected to result from use of a CTG. In addition, to evaluate the population and product mix of manufacturers who may be excluded from regulation under a CTG approach, the EPA requests comment on the number and identity of manufacturers who sell products solely in attainment areas. To evaluate differences in the reformulation cost associated with a CTG versus a national rule, the EPA requests comment on the proportion of products which would be reformulated

if, in general, only nonattainment areas were regulated. For example, EPA requests information on whether manufacturers would tend to produce one product for attainment areas and one for nonattainment areas, only sell products in attainment areas, or reformulate all products to be compliant with applicable nonattainment area requirements.

The EPA requests comment on whether and how a CTG approach (by itself, or in combination with any other regulatory alternatives) would be as effective as a national rule in reducing VOC emissions in ozone nonattainment areas. If warranted by comments, a quantitative analysis of costs and emission reductions expected from a CTG will be completed.

#### *K. Solicitation of Comments*

The EPA invites comments concerning the proposed standards, particularly as noted in the preceding sections concerning: the inclusion of specialty product categories; the technological and economic feasibility of VOC levels listed in Table 1; the ability of coatings with VOC content levels lower than the proposed levels to meet performance needs; the inclusion of processors in the applicability of the rule; economic and other impacts on importers; the feasibility of requiring coverage information to be displayed on coating labels or lids; the effectiveness of a public outreach program versus statements on the container label to educate users about the environmental impacts of VOC in coatings; and the placement of architectural coatings on the consumer products priority list. The EPA also requests information on coating categories where recent progress in low VOC resin systems has resulted in new low VOC coatings that have been introduced since 1990.

The EPA requests comment on the inclusion of an exceedance fee option for use as a compliance alternative to meeting the VOC levels in Table 1. Specifically, the EPA requests comments on the following: the appropriate use for revenues generated from the fee; the appropriateness of the exceedance fee rate; and the appropriateness of the recordkeeping and reporting requirements associated with the fee.

The EPA requests detailed information on any specialty coatings which do not comply with proposed standards, and cannot be cost-effectively reformulated. The EPA also requests comment on the inclusion of a low volume exemption for specialty, niche products. Specifically, the EPA requests comment on the following: (1) What

would be an appropriate cut-off level?

(2) To what degree would a low volume exemption aid small manufacturers and importers in complying with the rule? (3) To what extent would the exemption be used if included in the regulation? (4) Would such an exemption be equitable? (5) Would such an exemption create incentives for circumvention of the rule?

In addition, the EPA requests comment on the inclusion of the special provision for VOC credit for recycled coatings, the variance provision, and the small container exemption. For all of these provisions, the EPA requests comment on the expected extent of their use by small manufacturers and small importers.

Comments submitted to the Administrator should contain specific proposals and supporting data to allow the EPA to fully evaluate the comments. Recommended changes to any of the VOC content levels presented in this proposal should include sufficient information for the EPA to evaluate the technological and economic feasibility associated with such changes. Applicable dates and addresses for the submission of comments are included at the beginning of this preamble.

#### VI. Future Phase Under Consideration

The EPA believes further VOC reductions beyond those in Table 1 may be technologically and economically feasible. A great deal of controversy surrounds the proposal of more stringent VOC levels in a future phase of regulation. To address the controversy, the EPA will participate in a joint study with industry representatives to investigate the cost and performance characteristics of coatings with VOC contents lower than the proposed levels in Table 1. The environmental and economic impacts of requiring lower VOC contents will also be assessed. In addition, the EPA will continue to meet with other stakeholders regarding the potential for a future phase for the architectural coatings rule. After analyzing comments received regarding this proposal and following completion of the joint EPA/industry study, the EPA will evaluate whether further reductions beyond the 1997 requirements are technologically and economically feasible. The result of this evaluation could be proposal of more stringent VOC levels, the proposal of economic incentive approaches, some combination of VOC levels and economic incentive approaches, or no further action beyond the 1997 requirements.

The EPA is using this proposal as an opportunity to solicit input for use in

the joint EPA/industry study. The EPA expects to focus effort in the study on evaluation of issues which will include the following: the cost and economic impact of requiring lower VOC contents than those in Table 1, identification of any performance issues associated with lower VOC content coatings, and investigation of reactivity considerations involved in reformulating architectural coatings. The EPA invites comments concerning the planned EPA/industry study, and any input on performance, cost or reactivity considerations which should be included in the study.

Because the EPA's data consists of the Emissions Inventory Survey of coatings sold in 1990 and on limits in California coatings regulations that have been in effect since the late 1980's, the EPA is requesting information on coating categories where recent progress in low VOC resin systems has resulted in new low VOC coatings being introduced into the market since 1990. The EPA requests comments on the ability of coatings with VOC content levels lower than those in Table 1 to meet the performance needs within the category. Cost information on these coatings is also requested.

## VII. Administrative Requirements

### A. Public Hearing

A public hearing will be held, if requested, to provide opportunity for interested persons to make oral presentations regarding the requirements in the proposed regulation in accordance with Section 307(d)(5) of the CAA. Persons wishing to make oral presentation on the proposed regulation for architectural coatings should contact the EPA at the address given in the **ADDRESSES** section of this preamble. Oral presentations will be limited to 15 minutes each. Any member of the public may file a written statement before, during, or within 30 days after the hearing. Written statements should be addressed to the Air and Radiation Docket and Information Center at the address given in the **ADDRESSES** section of this preamble and should refer to Docket No. A-92-18.

A verbatim transcript of the hearing and written statements will be available for inspection and copying during normal business hours at the EPA's Air and Radiation Docket and Information Center in Washington, DC (see **ADDRESSES** section of the preamble).

### B. Executive Order 12866

Under Executive Order 12866, the Agency must determine whether the regulatory action is "significant" and

therefore subject to Office of Management Budget (OMB) review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of \$100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of the Executive Order, the EPA has determined that this rule is a "significant regulatory action" under criterion (4) above, based on both the long regulatory negotiation process that preceded this proposal and the novel use of economic incentives (potential exceedance fees) for this industry. Therefore, the proposed regulation presented in this notice was submitted to the OMB for review as required. Any written comments from the OMB to the EPA and any written EPA response to those comments will be included in Docket No. A-92-18, listed at the beginning of this notice under the **ADDRESSES** section of this preamble.

### C. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the OMB under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1750.01) and a copy may be obtained from Sandy Farmer, Office of Policy Planning and Evaluation (OPPE) Regulatory Information Division; U.S. Environmental Protection Agency (2136); 401 M Street., SW, Washington, DC 20460 or by calling (202) 260-2740. This ICR document is also available on the EPA's OAQPS TTN bulletin board under the Clean Air Act Amendments menu. See the **SUPPLEMENTARY INFORMATION** section of this preamble for information on accessing the EPA's TTN electronic bulletin board.

The information required to be collected by this proposed rule is necessary to identify the regulated entities who are subject to the rule and

to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of Section 114 of the CAA. All information submitted as part of a report to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in title 40, Chapter 1, part 2, subpart B, "Confidentiality of Business Information" (see 40 CFR 2; 41 FR 36902, September 1, 1976, amended by 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The total annual reporting and recordkeeping burden for this information collection averaged over the first three years is estimated to be 37,447 hours and \$1,279,469. This is the estimated burden for 500 respondents (i.e., architectural coating manufacturers).

The average burden, per respondent, is 75 hours per year. The total reporting, recordkeeping, and labeling burden for an individual respondent will vary depending on the compliance option chosen. Respondents choosing to meet the VOC levels will have the lowest reporting, recordkeeping, and labeling burden, whereas, manufacturers and importers that use the option of calculating an "adjusted VOC content" (for recycled coatings) will have the highest reporting, recordkeeping, and labeling burden. The proposed rule requires an initial one-time notification from each respondent. Respondents whose coatings products have a VOC content that is less than or equal to the VOC content levels have no periodic reporting requirements. Respondents choosing the recycled coatings provision must submit annual reports. Respondents choosing the variance provision must submit a one-time report requesting the variance.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This estimate includes the time needed to: (1) Review instructions; (2) develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information; processing and maintaining information; and disclosing and providing information; (3) adjust the existing ways to comply with any previously applicable instructions and requirements; (4) train personnel to be able to respond to a collection of information; (5) search data sources; (6) complete and review the collection of



information; and (7) transmit or otherwise disclose the information.

The exceedance fee alternative compliance mechanism being considered for inclusion in the final rule would require quarterly reports of fees by the manufacturers choosing this option. In addition, these manufacturers would keep records for each coating product on which fees are paid. The average annual burden increase for each manufacturer choosing this option is 194 hours.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2136); 401 M Street SW; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW; Washington, DC 20503; marked "Attention: Desk Officer for the EPA." Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after June 25, 1996, a comment to OMB is best assured of having its full effect if OMB receives it by July 25, 1996. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

#### D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the EPA to consider potential adverse impacts of proposed regulations on small entities and to consider regulatory options that might mitigate any such impacts. It is currently the EPA's policy to perform a regulatory flexibility analysis of the potential impacts of proposed regulations on small entities whenever it is anticipated that any small entities may be adversely impacted. Because it is anticipated that some small architectural coating manufacturers could be adversely impacted from implementation of the proposed standards, a regulatory flexibility analysis was performed.

The analysis of small entity impacts focused on the potential impacts on small manufacturers producing architectural coatings. For the purpose of this analysis, small manufacturers were considered to be firms with less than \$10 million of total gross annual revenues from the sale of architectural coatings and less than \$50 million in total gross annual revenues from all

products. Using this definition, potentially 85 percent of architectural coating manufacturers are considered small manufacturers. A copy of the technical memorandum titled "Economic Impact and Regulatory Flexibility Analysis of the Proposed Architectural Coatings Rule" is included in the public docket.

Reducing VOC content generally requires a fixed investment for reformulation of each product to its respective regulatory level. Because, on average, coatings sold by small manufacturers are sold in smaller quantities than the industry average (an estimated 67,000 liters per product versus 377,000 liters per product), the cost of reformulation per unit sold may in some cases be significantly higher for small manufacturers. To meet the limitations in Table 1, the estimated ratio of annualized reformulation cost to revenues for small manufacturers equals approximately 3.5 percent as opposed to a ratio of only about 0.4 percent for the entire industry. Thus, it may be difficult for small coating manufacturers to pass control costs to consumers in product markets where competition with larger manufacturers is significant. This impact will be reduced to the extent that small manufacturers are provided reformulation technologies from larger resin suppliers. Still, the EPA has recognized a need to include special compliance provisions in the rule to avoid adverse economic impacts upon small manufacturers.

The economic impacts on small manufacturers were taken into consideration in establishing both the categories and VOC levels. Special effort was made to consider the economic feasibility of VOC levels for product categories in which small manufacturers have a disproportionate presence. The small container exemption, compliance variance, and consideration of an exceedance fee option and low volume exemption are also included in the proposed rule primarily to reduce small business impacts.

Because the per-unit costs of the economic incentive options are constant with respect to volume sold, and because the per-unit reformulation cost is higher for small-volume products than large-volume products, an economic incentive option, such as a fee, if included, is more likely to be beneficial to and adopted by small manufacturers than by large manufacturers. The results of the economic analysis suggests that the fee option is likely to provide a cost-saving alternative to reformulation for relatively low-volume products with VOC content fairly close to the

regulatory VOC levels. Estimated annual reformulation cost savings minus fee payments associated with the fee option equals approximately \$5.0 million. In addition, the fee option reduces foregone profits by roughly 0.3 million for products which otherwise would have been removed from the market. It is anticipated that most of these savings would accrue to small manufacturers.

#### E. Unfunded Mandates

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under Section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, Section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of Section 205 do not apply when they are inconsistent with applicable law. Moreover, Section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under Section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The rule imposes no enforceable duties on any of these governmental entities. In any event, EPA has determined that this rule does not contain a Federal mandate that may

result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. Thus, today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA.

*F. Enhancing the Intergovernmental Partnership under Executive Order 12875*

In compliance with Executive Order 12875, the EPA has involved State and local governments in the development of this rule. State and local air pollution control associations participated in the regulatory negotiation and have also provided regulatory review. State and local air pollution control representatives participated in the regulatory negotiation and have also provided input into subsequent regulatory development.

List of Subjects in 40 CFR Part 59

Environmental protection, Air pollution control, Architectural coatings, Consumer and commercial products, Incorporation by Reference, Ozone, Regulatory negotiation, Volatile organic compound.

TABLE 1.—ARCHITECTURAL COATING VOLATILE ORGANIC COMPOUND CONTENT LEVELS

[Unless otherwise specified, units are in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation excluding the volume of any water, exempt compounds, or colorant added to tint bases.]

Coating category	Effective Apr. 1, 1997
Antenna coatings .....	530
Antifouling coatings .....	400
Anti-graffiti coatings .....	600
Bituminous coatings and mastics ...	500
Bond breakers .....	600
Chalkboard resurfacers .....	450
Concrete curing compounds .....	350
Concrete protective coatings .....	400
Dry fog coatings .....	400
Extreme high durability coatings ...	800
Fire-retardant/resistive coatings:	
Clear .....	850
Opaque .....	450
Flat coatings:	
Exterior .....	250
Interior .....	250
Floor coatings .....	400
Flow coatings .....	650
Form release compounds .....	450
Graphic arts coatings (sign paints)	500
Heat reactive coatings .....	420
High temperature coatings .....	650
Impacted immersion coatings .....	780
Industrial maintenance coatings ....	450
Lacquers (including lacquer sanding sealers) .....	680
Magnesite cement coatings .....	600

TABLE 1.—ARCHITECTURAL COATING VOLATILE ORGANIC COMPOUND CONTENT LEVELS—Continued

[Unless otherwise specified, units are in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation excluding the volume of any water, exempt compounds, or colorant added to tint bases.]

Coating category	Effective Apr. 1, 1997
Mastic texture coatings .....	300
Metallic pigmented coatings .....	500
Multi-colored coatings .....	580
Nonferrous ornamental metal lacquers and surface protectants ....	870
Nonflat coatings:	
Exterior .....	380
Interior .....	380
Nuclear coatings .....	420
Pretreatment wash primers .....	780
Primers and undercoaters .....	350
Quick-dry coatings:	
Enamels .....	450
Primers, sealers, and undercoaters .....	450
Repair and maintenance thermoplastic coatings .....	650
Roof coatings .....	250
Rust preventative coatings .....	400
Sanding sealers (other than lacquer sanding sealers) .....	550
Sealers (including interior clear wood sealers) .....	400
Shellacs:	
Clear .....	650
Opaque .....	550
Stains:	
Clear and semitransparent .....	550
Opaque .....	350
Low solids .....	<sup>1</sup> 120
Swimming pool coatings .....	600
Thermoplastic rubber coatings and mastics .....	550
Traffic marking coatings .....	150
Varnishes .....	450
Waterproofing sealers and treatments:	
Clear .....	600
Opaque .....	400
Wood preservatives:	
Below ground wood preservatives .....	550
Clear and semitransparent .....	550
Opaque .....	350
Low solids .....	<sup>1</sup> 120

<sup>1</sup> Units are grams of VOC per liter of coating, including water and exempt compounds, thinned to the maximum thinning recommended by the manufacturer.

Dated: June 18, 1996.  
 Carol M. Browner,  
*Administrator.*  
 [FR Doc. 96-16009 Filed 6-24-96; 8:45am]

BILLING CODE 6560-50-P

40 CFR Part 261

[SW-FRL-5525-3]

**Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Proposed Exclusion**

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule and request for comment.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to grant a petition to Bekaert Steel Corporation (Bekaert) of Rogers, Arkansas to exclude (or "delist"), certain solid wastes generated at its facility from the lists of hazardous wastes contained in 40 CFR 261.31 and 261.32 (hereinafter all sectional references are to 40 CFR unless otherwise indicated). This action responds to a delisting petition submitted under 40 CFR 260.20, which allows any person to petition the Administrator to modify or revoke any provision of 40 CFR Parts 260 through 266, 268 and 273, and under 40 CFR 260.22, which specifically provides generators the opportunity to petition the Administrator to exclude a waste on a "generator specific" basis from the hazardous waste lists. This proposed decision is based on an evaluation of waste-specific information provided by the petitioner. If this proposed decision is finalized, the petitioned waste will be conditionally excluded from the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA).

**DATES:** The EPA is requesting public comments on this proposed decision. Comments will be accepted until August 9, 1996. Comments postmarked after the close of the comment period will be stamped "late."

Any person may request a hearing on this proposed decision by filing a request with Jane N. Saginaw, Regional Administrator, whose address appears below, by July 10, 1996. The request must contain the information prescribed in 40 CFR 260.20(d).

**ADDRESSES:** Send three copies of your comments. Two copies should be sent to William Gallagher, Delisting Program, Multimedia Planning and Permitting Division (6PD-O), Environmental Protection Agency, Region 6, 1445 Ross Avenue, Dallas, Texas 75202. A third copy should be sent to the Arkansas Department of Pollution Control and Ecology, P.O. Box 8913, 8001 National Drive, Little Rock, Arkansas 72219-8913. Identify your comments at the top with this regulatory docket number: "F-96-ARDEL-BEKAERT."