

copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this action and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of this action in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective September 11, 1998.

H. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (the NTTAA), Pub. L. No. 104-113, section 12(d) (15 U.S.C. 272 note), directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices, etc.) that are developed or adopted by voluntary consensus standard bodies. The NTTAA requires the EPA to provide Congress, through OMB, explanations when the EPA decides not to use available and applicable voluntary consensus standards.

This action does not involve any technical standards that would require the EPA consideration of voluntary consensus standards pursuant to § 12(d) of the NTTAA. This action does not establish any requirements.

I. Executive Order 13045

Executive Order 13045 applies to any rule that the EPA determines (1) that the rule is economically significant as defined under Executive Order 12866, and (2) that the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

This final action is not subject to Executive Order 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), because it is not an economically significant regulatory action as defined by Executive Order 12866, and it does

not address an environmental health or safety risk that would have a disproportionate effect on children.

Executive Order 13084

Under Executive Order 13084, the EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or the EPA provides to the Office of Management and Budget a description of the prior consultation and communications the agency has had with representatives of tribal governments and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires the EPA to develop an effective process permitting elected and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities." Information available to the Administrator does not indicate that this action will have any effect on Indian tribal governments.

List of Subjects in 40 CFR Ch. I

Environmental protection, Air pollution control, Consumer and commercial products, Consumer products, Ozone, Volatile organic compound.

Dated: August 14, 1998.

Carol M. Browner,
Administrator.

[FR Doc. 98-22658 Filed 9-10-98; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 59

[AD-FRL-6149-5]

RIN 2060-AE35

National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national volatile organic compound (VOC) emission standards for automobile refinish coatings pursuant to

section 183(e) of the Clean Air Act (Act). This final rule is based on the Administrator's determination that VOC emissions from the use of automobile refinish coatings have the potential to cause or contribute to ozone levels that violate the national ambient air quality standards (NAAQS) for ozone. Ozone is a major component of smog which causes negative health and environmental impacts when present in high concentrations at ground level. The final rule is estimated to reduce VOC emissions by 31,900 tons per year (tpy) by requiring manufacturers and importers to limit the VOC content of automobile refinish coatings.

EFFECTIVE DATE: The effective date is September 11, 1998. Incorporation by reference of certain publications listed in the regulation is approved by the Director of the Federal Register as of September 11, 1998.

ADDRESSES: *Technical Support Documents.* The regulation promulgated today is supported by two background information documents (BIDs), one specific to the automobile refinish coatings rule, and one that addresses comments on the study and Report to Congress under section 183(e) that is a basis for this rule. The document, "Volatile Organic Compound Emissions from Automobile Refinishing—Background Information for Promulgated Standards" (EPA-453/R-96-011b), contains a summary of the public comments made on the proposed automobile refinish coatings rule and the Agency's responses to the comments. The document, "Response to Comments on Section 183(e) Study and Report to Congress" (EPA-453/R-98-007), contains a summary of all the public comments made on the section 183(e) study and Report to Congress and the list and schedule for regulation as well as the Agency's responses to the comments.

These documents may be obtained from several sources: (1) the docket for this rulemaking; (2) the U.S. Environmental Protection Agency Library (MD-35), Research Triangle Park, North Carolina 27711, telephone (919) 541-2777; (3) National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22151, telephone (703) 487-4650; and (4) through the Internet at <http://www.epa.gov/ttn/oarpg/ramain.html>.

Docket. Docket No. A-95-18, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8:00 a.m. to 5:30 p.m. Monday through Friday, at the EPA's Air and Radiation Docket and

Information Center, Waterside Mall, Room M-1500, Ground Floor, 401 M Street SW, Washington, DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Mark Morris at (919) 541-5416, Organic Chemicals Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711 (morris.mark@epamail.epa.gov).

SUPPLEMENTARY INFORMATION:

Regulated Entities. Entities potentially regulated by this action are manufacturers and importers of automobile refinish coatings or coating components. An automobile refinish coating component is a portion of a coating, such as a reducer or thinner, hardener, additive, etc., recommended (by its manufacturer or importer) to distributors or end-users for automobile refinishing. Automobile refinishing is the process of coating automobiles or their parts, including partial body collision repairs, that is subsequent to the original coating applied at an automobile original equipment manufacturing plant. Regulated categories and entities include:

Category	Examples of regulated entities
Industry ..	Manufacturers or importers of automobile refinish coatings or coating components that are manufactured for sale or distribution in the U.S., including all U.S. territories.

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 product is regulated by this action, you should carefully examine the applicability criteria in § 59.100 of the final 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.

Judicial review. The EPA proposed this section 183(e) rule for automobile refinish coatings on April 30, 1996 (61 FR 19005), and issued a supplemental proposal on December 30, 1997 (62 FR 67784). This notice promulgating a rule for automobile refinish coatings constitutes final administrative action concerning the proposal. Under section 307(b)(1) of the Act, judicial review of

this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by November 10, 1998. Under section 307(d)(7)(B) of the Act, only an objection to this rule which was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the Act, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by the EPA to enforce these requirements.

Technology Transfer Network. The Technology Transfer Network (TTN) is one of the EPA's electronic bulletin boards. The TTN provides information and technology exchange in various areas of air pollution control, including copies of this rule and supporting documents. The TTN is free and is accessible through the Internet at "<http://www.epa.gov/ttn>." For more information on the TTN, call the HELP line at (919) 541-5384.

Outline. The following outline is provided to aid in reading this preamble to the final rule.

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I. Purpose and Summary of the Standards

A. Purpose of Regulation

1. Ground-Level Ozone

Ground-level ozone, which is a major component of "smog," is formed in the atmosphere by reactions of VOC and oxides of nitrogen (NO_x) in the presence of sunlight. The formation of ground-level ozone is a complex process that is affected by many variables.

Exposure to ground-level ozone is associated with a wide variety of human health effects, agricultural crop loss, and damage to forests and ecosystems. Acute health effects are induced by short-term exposures to ozone (observed at concentrations as low as 0.12 parts per million (ppm)), generally while individuals are engaged in moderate or heavy exertion, and by prolonged exposures to ozone (observed at concentrations as low as 0.08 ppm), typically while individuals are engaged in moderate exertion. Moderate exertion levels are more frequently experienced by individuals than heavy exertion levels. The acute health effects include pulmonary function responses, transient respiratory symptoms, effects on exercise performance, increased sensitivity of airways to irritants, increased susceptibility to respiratory infection, increased hospital admissions and emergency room visits, and pulmonary inflammation. Groups at increased risk of experiencing such effects include active children, outdoor workers, and others who regularly engage in outdoor activities and individuals with preexisting respiratory disease. Available information also suggests that long-term exposures to ozone may cause chronic health effects (e.g., structural damage to lung tissue and accelerated decline in baseline lung function).

2. Automobile Refinish Coatings Regulation

Before today's rule, VOC emissions from the use of automobile refinish coatings were not regulated at the Federal level. However, several States have developed automobile refinishing rules. Some industry parties and States have urged the EPA to issue rules for automobile refinish coatings to encourage consistency across the country. Many States with ozone pollution problems are supportive of an EPA rulemaking that will assist them in their efforts toward achievement of ozone attainment. Although regulated entities in all States will be required to comply with these national standards, some States may wish to promulgate

VOC standards more stringent than the national rule to assist in achieving attainment with the NAAQS for ozone.

3. Background on Section 183(e)

Section 183(e) of the Act mandates a new regulatory program for controlling VOC emissions. Through this provision, Congress required the EPA to conduct a study of emissions of VOC into the ambient air from consumer and commercial products to determine their potential to contribute to ozone nonattainment, to develop criteria based upon statutory factors for regulation of such products, and to list for regulation, based on the criteria, categories of products that account for at least 80 percent of the emissions from such products in nonattainment areas, on a reactivity adjusted basis.

In accordance with section 183(e) of the Act, the Administrator has determined that VOC emissions from the use of automobile refinish coatings have the potential to contribute to ozone levels that violate the NAAQS for ozone. Under authority of section 183(e), the EPA conducted a study of the VOC emissions from consumer and commercial products to determine their potential to contribute to ozone levels which violate the NAAQS for ozone. Based on the results of the study, and by application of the criteria, the EPA determined that the emissions from automobile refinish coatings should be regulated under section 183(e). Consequently, the EPA and many States consider the regulation of automobile refinish coatings to be an important component of the overall approach to reducing those emissions that contribute to ozone nonattainment. The EPA's determination that VOC emissions from the use of automobile refinish coatings have the potential to contribute to nonattainment of the ozone NAAQS and the decision to regulate automobile refinish coatings are discussed in the preamble to the proposed rule (61 FR 19005), in the "Consumer and Commercial Products Report to Congress" (EPA-453/R-94-066-A), in the **Federal Register** notice announcing the schedule for regulation (60 FR 15264), and in a separate **Federal Register** notice published today that constitutes final action on the agency's listing of automobile refinish coatings for regulation.

B. Summary of the Standards

Applicability

The provisions of the rule apply to automobile refinish coatings and coating components that are manufactured on or after January 11, 1999 for sale or

distribution in the United States, including the District of Columbia and all U.S. territories. The entities regulated by the rule include manufacturers and importers of automobile refinish coatings or coating components.

The final rule does not apply to coatings or coating components manufactured before the compliance date of the rule, for use by original equipment manufacturers, or for sale outside the United States. The final rule also does not apply to coatings supplied in nonrefillable aerosol containers, lacquer topcoats or their components, or touch-up coatings.

Regulated Entities

Regulated entities are generally defined under section 183(e) of the Act to include potentially manufacturers, processors, wholesale distributors, and importers. Under this final rule, regulated entities include manufacturers and importers of automobile refinish coatings or coating components which are manufactured for sale or distribution in the United States. Since the distribution of coatings has no effect on whether compliant coatings are used, distributors are not regulated entities under this rule.

Standards

Coatings subject to this rule shall comply with the VOC content standards listed in table 1. Combinations of automobile refinish coating components recommended for use in the coating categories given in table 1 shall comply with the appropriate VOC content standards.

TABLE 1.—VOC CONTENT STANDARDS FOR AUTOMOBILE REFINISH COATINGS

Coating category	VOC Content, ^a grams/liter (pounds/gallon)
Pretreatment Wash Primer	780 (6.5)
Primer/Primer Surfacer	580 (4.8)
Primer Sealer	550 (4.6)
Single/2-Stage Topcoats	600 (5.0)
Topcoats of 3 or more stages ..	630 (5.2)
Multi-colored topcoats	680 (5.7)
Specialty Coatings ^b	840 (7.0)

^a VOC content means the amount of VOC in a coating that has been prepared for application according to the regulated entity's mixing instructions, excluding water and exempt compounds. English units are provided for information only. Regulation enforcement will be based on the metric levels.

^b Specialty coatings include adhesion promoters, low-gloss coatings, bright metal trim repair coatings, cut-in (jamming) clearcoats, elastomeric materials, impact-resistant coatings, underbody coatings, uniform finish blenders, and weld-through primers.

Labeling Requirements

Each regulated entity must provide the following information on each container: (1) the day, month, and year on which the product was manufactured; or (2) a code indicating such a date.

Reporting

Regulated entities must file an initial report to the appropriate EPA Regional Office no later than January 11, 1999 or within 180 days after a regulated entity becomes subject to the rule, whichever is later. Addresses for the EPA Regional Offices are provided in § 59.108. The initial report must include the following information:

- (1) The name and mailing address of the regulated entity.
- (2) In cases where codes are used to represent the date of manufacture, the regulated entity shall submit an explanation of each date code to the Administrator.
- (3) The street address of each of the regulated entity's facilities in the United States that is producing, packaging, or importing automobile refinish coatings or coating components subject to the provisions of this subpart.
- (4) A list of the categories from table 1 of this subpart for which the regulated entity recommends the use of automobile refinish coatings or coating components.

Each regulated entity must submit an explanation of any new date codes used by the regulated entity no later than 30 days after products bearing the new date code are first introduced into commerce.

Except for applications that may be submitted by regulated entities requesting variances, there are no reporting requirements beyond those described above.

Variance

The rule allows regulated entities to submit a written application to the Administrator requesting a variance if, for technological or economic reasons beyond their reasonable control, they cannot comply with the requirements of the rule.

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

An approved variance 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.

Compliance Provisions

The rule specifies the procedures to determine the VOC content of coatings subject to the rule. The VOC content of coatings will be determined using the EPA's 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. Method 24 is the EPA's standard method for determining the VOC content of coatings.

For purposes of determining whether a primer qualifies as a pretreatment wash primer, the acid weight percent of such primers shall be determined using the American Society for Testing and Materials (ASTM) Test Method D 1613-96 (incorporated by reference) to determine compliance with the definition of pretreatment wash primer as provided in § 59.101 of this subpart.

For purposes of determining whether a coating qualifies as a low-gloss coating, the gloss reading of low-gloss coatings shall be determined using ASTM Test Method D 523-89 (incorporated by reference) to determine compliance with the definition of low-gloss coating as provided in § 59.101 of this subpart.

Although the EPA has chosen Method 24 as the reference method for determining compliance with the VOC content requirements of this rule, it is not the exclusive method for determining compliance. The manufacturer or importer may also use a different analytical method than Method 24 (if it approved by the Administrator on a case-by-case basis), formulation data, or any other reasonable means to determine the VOC content of coatings. However, the EPA may require a Method 24 analysis to be conducted, and if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern. The EPA can use other evidence as well to establish whether or not a manufacturer or importer is in compliance with the provisions of this rule.

II. Summary of Considerations in Developing the Rule

A. Technical Basis of Regulation

Standards under Section 183(e) of the Act must reflect the Agency's

determination of best available controls (BAC) for the product category. The Act defines BAC as:

The degree of emissions reduction 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.

The statute thus empowers the EPA to examine a variety of considerations to use in determining the best means of obtaining VOC emission reductions from a given consumer or commercial product category. As discussed in the preamble to the proposed rule (61 FR 19005, April 30, 1996), the primary factors the EPA considered in determining BAC for automobile refinishing coatings were technological and economic feasibility, and environmental impacts.

The EPA has determined that BAC for automobile refinishing coatings consists of specific VOC content limits, expressed as mass of VOC per volume of coating, for each type of coating as listed in § 59.102. Section 183(e) of the Act allows the EPA to consider a wide range of strategies and technologies in determining BAC. The determination must be based on technological and economic feasibility, as well as on health, environmental, and energy impacts. The EPA has determined that, in most cases, all or most of a coating's VOC content is emitted during use. Therefore, the EPA concluded that limits on the VOC content would be the most feasible and least disruptive control measure to obtain appropriate VOC emission reductions. In working to comply with State VOC rules over the past several years, automobile refinishing coating manufacturers have already developed low-VOC coatings. The standards reflect the degree of emission reduction that the EPA has determined to be BAC for different types of automobile refinishing coatings. The EPA selected the VOC limits based primarily on existing State and local VOC emission standards, coating VOC content and sales information, analysis of coating technologies, performance considerations, cost considerations, market impacts, and stakeholder input.

As discussed in the preamble to the proposed rule, the BAC selection process involved the selection of coating categories and the determination of VOC content limits for those categories. Primers and topcoats are the general categories of automobile refinishing

coatings. Decisions to divide these categories into more specific categories was a direct consequence of the VOC content levels under consideration. For example, the primer category is fairly broad and encompasses several coating applications. The determination of the primer (and primer surfacer) VOC limit was discussed in the preamble to the proposed rule. The creation of a separate category for pretreatment wash primers was necessary because the EPA had no information indicating this specific primer type could achieve the lower VOC limit of the general primer category. The limit selected for the pretreatment wash primer category is essentially the VOC level of such primers in use today; therefore, the EPA anticipates no emission reductions from this low-usage category. The VOC content limit determined to be BAC for another category, primer sealers, is lower than the primer limit, since coating product information indicates that primer sealers can achieve a lower limit.

Topcoats are also divided into several categories. BAC for single and 2-stage topcoats was determined after considering the technical feasibility and cost impacts of the use of topcoats at various VOC content levels. As discussed in the preamble to the proposed rule, the EPA has no information indicating that topcoats of 3 or more stages can achieve the same limit as single and 2-stage topcoats; therefore, a separate category was created for such topcoats. As a result of a public comment, another topcoat category has been added in this final rule for multi-colored topcoats. These low-usage coatings are durable and wear resistant, and are used mainly for lining the cargo beds of trucks. The EPA established the VOC limit for this category based on State rules and public comments. The EPA has no information indicating that a lower VOC limit can be achieved.

The specialty coating category contains several coatings designed for very specific uses. These coatings do not exist with a wide variety of VOC levels. Like pretreatment wash primers, the VOC limit for specialty coatings is essentially the VOC level of such coatings already in use. This category contains coatings that are used infrequently, and the EPA does not anticipate VOC reductions from this category.

B. Stakeholder and Public Participation

The EPA proposed the automobile refinishing coatings rule and published the preamble in the **Federal Register** on April 30, 1996 (61 FR 19005) and

December 30, 1997 (62 FR 67784). The EPA placed the proposed regulatory text, BID, and Economic Impact Analysis (EIA) in a docket open to the public at that time and made them available to interested parties. The EPA solicited comments at the time of the proposal.

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held in Research Triangle Park, North Carolina on May 30, 1996. Seven people presented oral testimony at this hearing. The public comment period was open from April 30, 1996, to July 1, 1996, and from December 30, 1997, to February 13, 1998. Twenty-six comment letters were received. Commenters included industry representatives, States, trade associations, and others. The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate. A detailed discussion of these comments and responses can be found in the Background Information Document, which is referenced in the ADDRESSES section of this preamble.

A separate document in today's **Federal Register** contains a summary of public comments and EPA responses regarding the section 183(e) study, the Report to Congress, the list of consumer and commercial product categories selected for regulation, and the schedule for regulation.

III. Summary of Impacts

A. Volatile Organic Compound Reductions

The proposed standards would reduce nationwide emissions of VOC from the use of automobile refinish coatings by an estimated 28,900 Mg (31,900 tons). These reductions represent a 33% reduction from the 1995 baseline emissions estimates. Since many regulated VOC species are also on the list of hazardous air pollutants (HAP) in section 112 of the Act, the proposed rule is expected to reduce some HAP emissions from the use of automobile refinish coatings.

B. Health Effects

Because VOC are precursors to ozone formation, the VOC reductions from automobile refinish coatings will contribute to a decrease in adverse health effects that result from exposure to ground-level ozone. These health effects result from short-term or prolonged exposure to ground-level ozone and include transient respiratory

symptoms, effects on exercise performance, increased airway responsiveness, increased susceptibility to respiratory infection, increased hospital admissions and emergency room visits, and transient pulmonary inflammation. Available information also suggests that long-term exposures to ozone may cause chronic health effects (e.g., structural damage to lung tissue and accelerated decline in baseline lung function).

C. Secondary Air, Water, and Solid Waste Impacts

No significant adverse secondary air, water, or solid waste impacts are anticipated from compliance with these standards. Generally, the use of low-VOC coatings, a pollution prevention technique, will be used to comply with these standards. 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 from the manufacture of waterborne coatings is discharged by manufacturers to publicly owned treatment works.

The regulations do not impact existing product inventories. Products manufactured before the compliance deadline are not affected. Excluding existing product inventories from the regulations will eliminate any incremental solid waste increase due to discarded unsold products. The new products are not expected to require any more packaging than existing products, and thus the volume of discarded packaging should not increase.

D. Energy Impacts

The EPA anticipates no increase in energy usage as a result of this rule. The standards do not require the use of control devices that utilize energy to reduce the amount of VOC emitted to the air. The EPA is also not aware of any incremental energy use increase expected from the production of new formulations of automobile refinish coatings and coating components.

E. Cost and Economic Impacts

The total cost of this rule includes coating manufacturer process modification costs, and costs for training coating manufacturer representatives, distributors, and body shop personnel. The annual cost of this rule is 4.5 million dollars (1993 dollars), or about \$160 per megagram of VOC emissions reductions. This cost per megagram of VOC emission reduction makes this rule an economically efficient means of obtaining VOC emission reductions, when compared to

the cost per megagram of reduction potentially available through other control measures. Economic impacts are predicted to be minimal with a maximum price increase of two-tenths of one percent (0.2%) or less, and a 0.02% increase in the cost of an average repair job. Small business impacts are not expected to be significant.

IV. Significant Comments and Changes to the Proposed Standards

The EPA received a total of 26 comment letters on the proposed rule. In addition, 7 speakers presented testimony at a public hearing held in Research Triangle Park, North Carolina, on May 30, 1996. The more significant comments on the rule are discussed in this section of the preamble. A complete summary of comments and the EPA's full responses are presented in the BID for the promulgated rule, as referenced in the ADDRESSES section of this preamble.

In response to public comments on the proposed standards, the EPA has made several changes to the final rule. While most of the changes are clarifications designed to make the Agency's intent clearer, the EPA did make changes to the proposed rule based upon comments received. The changes include:

- Addition of definitions for "automobile refinish coating component," "low-gloss coating," and "multi-colored topcoat,"
- Exemption of lacquer topcoats,
- Clarification of the requirements for coatings with multiple uses,
- Addition of the multi-colored topcoat category, and
- Reorganization of the rule for clarity.

The following sections of the preamble discuss the most significant issues raised by commenters and the EPA's responses to them.

A. Applicability

Several commenters supported including manufacturers and importers of automobile refinish coating components, such as thinners and hardeners, as regulated entities. The commenters stated that excluding coating component manufacturers and importers would likely result in the use of coatings with VOC levels higher than the proposed standards, since these components would not be required to be part of a compliant coating system.

Regulated entities under the April 30, 1996, proposed rule included only manufacturers and importers of complete automobile refinish coatings. The VOC content of an automobile refinish coating depends, however, on

the VOC content levels of all components that make up the coating. Coating users sometimes combine components made by multiple manufacturers when preparing a coating. Since components themselves are not coatings, a manufacturer who produces only hardeners, for example, would not have been subject to the April 1996 proposed rule. Such a manufacturer could recommend that its hardener be combined with components of other manufacturers, possibly resulting in a coating that exceeds the VOC content standards of the rule. Such a situation could essentially undermine the VOC emission reductions of the rule.

The EPA proposed in a supplemental notice (December 30, 1997, 62 FR 67784) to include as regulated entities all manufacturers and importers of automobile refinish coatings or coating components. The EPA also proposed a mechanism for determining compliance with the rule for coatings consisting of components made or imported by multiple entities. Under this approach, manufacturers and importers of coatings or coating components must comply with the VOC content limits for complete coatings by calculating the VOC content of coatings that result from the use of their components in accordance with their recommendations.

Determining compliance for coatings consisting of components made or imported by one regulated entity is relatively easy. In general, compliance would be determined by "spot checking," where the EPA (or the regulated entity, if requested by the EPA) would obtain coating components, mix the components in the ratios recommended by the regulated entity (on the containers or in any product literature), and analyze the resulting coating using Method 24. The EPA considered requiring regulated entities to perform VOC testing of their coatings on a regular basis (e.g., every nth batch) to demonstrate compliance with the rule, but believes that such a requirement would be economically burdensome. The EPA believes that random spot checks will be adequate to encourage regulated entities to assure that all of their coating batches are compliant.

Determining the compliance of coatings that consist of components made or imported by multiple regulated entities is more difficult. The EPA considered several options for determining compliance in these cases. The EPA considered requiring regulated entities (that recommend the use of their components with those of other

regulated entities) to use Method 24 to test the coatings resulting from their recommendations. Using this information, the entities could establish the maximum allowable VOC content of their components, and the EPA would spot check components to determine compliance. However, the EPA has no standard method for determining the VOC content of individual components. Also, the VOC content of a coating is not simply the sum of the VOC contents its components, so component VOC content is not necessarily an indicator of the VOC content of the overall coating. Therefore, the EPA believes it is technically infeasible to determine compliance using component VOC content information.

Because of the technical infeasibility of the approach described above, the EPA has concluded that the responsibility for coatings should be based on product recommendations. In other words, if an entity recommends a combination of components (made or imported by one or more regulated entities), then that entity is responsible for the compliance of the resulting coating. There may be cases where a coating resulting from an entity's recommendation is noncompliant because of the components of other entities. Since this occurrence may be beyond the control of the recommending entity, the Agency determined that it would be appropriate to provide regulated entities with a means to establish their compliance with the rule, and the Agency solicited comments on such a mechanism. In this event, the final rule provides regulated entities the opportunity to submit new or existing Method 24 test data demonstrating the compliance of the coating resulting from their recommendation. This option is technically feasible, and is appropriate since compliance is determined in essentially the same way for all regulated entities.

It is important to note that regulated entities would be liable only for the VOC content of the coatings that result from their recommendations. For example, if a regulated entity recommends that three of its coating components be combined and used in automobile refinishing, it is responsible for the coating that results from that combination. If a regulated entity recommends the substitution of one of its components for that of another regulated entity, the former entity is responsible for the resulting coating. A regulated entity is not responsible for coatings resulting from the recommendations of others, even if such

recommendations involve the use of components of that regulated entity.

B. Lacquer Topcoats

In the proposed rule, the EPA indicated that it was considering exempting lacquer topcoats from the rule or including them in a specialty coating category and limiting their production. Several commenters supported the exemption of lacquer topcoats from the rule because they account for only 5–10% of coating usage, and their use is decreasing because automobile manufacturers use other coating types on new automobiles. These commenters stated that lacquers are used mainly by hobbyists who wish to restore vehicles to their original condition, including the paint finish. One commenter stated the use of lacquers to refinish modern vehicles is untenable because of inferior durability and aesthetics.

Another commenter stated that the EPA should classify lacquer topcoats as specialty coatings and consider limiting their production, since an exemption for lacquers would create inconsistencies between the national rule and State rules that do not exempt them. The commenter stated that limiting lacquer production would aid in the compliance with State rules.

The EPA has determined that it is appropriate to exempt lacquer topcoats from the final rule. The EPA agrees lacquer topcoats are less desirable than other coating types for refinishing modern automobiles, and that their use is therefore not likely to increase since they are not used on new automobiles. Lacquers are not as durable as other coatings. Since they dry by solvent evaporation alone (rather than through chemical crosslinking), they are not resistant to solvent attack. Although other coatings generally can be used to refinish antique and classic automobiles, the finish would not be the "original" finish desired by users in this niche of automobile refinishing. The EPA exempted lacquer topcoats from the final rule because their use is decreasing, their contribution to the total VOC emissions is small, they fill a niche in the automobile refinish industry, and they cannot be reformulated to meet the VOC content limit for topcoats.

Including lacquer topcoats in a specialty coating category and limiting their production, as suggested by one commenter, does not appear to be a viable option. First, production limits set significantly below current usage levels would cause shortages of lacquer topcoats. Such shortages would restrict consumer access to the product. Second,

production limits set at or near current usage levels would be equivalent to an exemption, since lacquer topcoat usage is not likely to increase. The additional recordkeeping necessary to make a production limit enforceable would be burdensome on both regulated entities and the EPA. For these reasons, the EPA decided against the creation of a specialty category with limits on production for lacquer topcoats.

Some commenters noted that an exemption would lead to an inconsistency between State and federal rules for this coating type. The EPA acknowledges that an exemption for lacquer topcoats under the national rule may make the rule less stringent than some State rules, but the EPA notes that States may still choose to be more stringent than the national rule by the inclusion of such coatings in their own rules.

C. Specialty Coatings

In the preamble to the proposed rule, the EPA requested comments on methods to determine and enforce production limits for specialty coatings. Production limits were considered by the EPA as a way to prevent abuse of an open-ended definition of specialty coatings. Several commenters on the proposed rule stated that an open-ended definition of specialty coatings would allow refinish coating manufacturers to produce coatings compatible with new substrates and coatings used on new vehicles.

In the preamble to the proposed rule, the EPA discussed the difficulties associated with specialty coating production limits. Since some specialty coatings are just modifications of other coatings, it is unclear what should be limited. Also, production limits would adversely affect manufacturers and importers that produce primarily specialty coatings. Several commenters reiterated these concerns, but no comments were received suggesting production limits or how such limits could be determined or enforced. Therefore, the final rule does not include production limits for specialty coatings.

D. Test Methods

One commenter stated that the EPA had not designated a reliable test method for determining the acid content of pretreatment wash primers. The proposed method, ASTM Test Method D 1613-91, covers the determination of total acidity in organic compound and hydrocarbon mixtures used in paints and other substances. This method consists of a titration using a color indicator to determine the endpoint of

the titration. The EPA agrees that since some pretreatment wash primers are pigmented, tests using color indicators may not work. However, the proposed method can be used to determine the acid content of the acid-containing component of the primer, which does not contain the pigment.

Pretreatment wash primers typically consist of two components: a "base" coating and a catalyst. The base contains the pigment, and the catalyst contains the acid. The catalyst is a mixture of organic compounds that contains acid; therefore, it is in the scope of the proposed method. To determine the overall weight percent of acid in the primer, calculations must be performed that involve the acid content of the catalyst and the mixing ratio of the base to the catalyst. The EPA proposed this use of ASTM Test Method D 1613-91 in the December 30, 1997, supplemental proposal. Several commenters agreed with this use of the method. One commenter on the supplemental proposal, however, stated that coating manufacturers may develop a single component pretreatment wash primer, and wondered what method would be used in such cases. Since no such coatings currently exist, the EPA has not proposed a test method for them; however, the final rule does contain a provision which allows the use of alternative methods when warranted.

E. Coatings With Multiple Uses

Several commenters recommended clarification of a proposed rule provision dealing with coatings having multiple uses. One commenter stated that a topcoat modified for a specific purpose, thus making it a specialty coating, can be interpreted to be noncompliant under the proposed rule if it does not meet the topcoat limit, which is the lowest applicable VOC content standard.

To avoid confusion, the EPA has removed the provision mentioned by the commenters. The EPA's intent in the proposed provision was to clarify that if the same combination (and mixing ratio) of coating components were recommended for use in more than one coating category, then the lowest VOC content standard would apply. Different combinations and/or mixing ratios of coating components are considered different coatings. The modified topcoat described by a commenter is not considered a topcoat if it meets the definition of a specialty coating; therefore, it would not be required to meet the topcoat VOC content standard. A provision has been added to the final rule (§ 59.102(b)) for clarification.

V. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the docket will serve as the record in case of judicial review [see 42 U.S.C. 7607(d)(7)(A)].

B. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060-0353.

The information collections required under this rule are needed as part of the overall compliance and enforcement program. The information will be used by the EPA to identify the regulated entities subject to the rule and to ensure their compliance with the rule. The reporting and labeling requirements are mandatory and are being established under sections 114 and 183(e) of the Act. All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to the EPA policies set forth in Title 40, Chapter 1, Part 2, Subpart B—Confidentiality of Information (see 40 CFR part 2; 41 FR 36902, September 1, 1976; amended by 43 FR 39999, September 8, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The only information collection requirements of the rule are for labeling and reporting. To determine whether a coating or coating component is manufactured before or after the compliance date of the rule, the date of manufacture, or code representing the date, must appear on the container. Manufacturers currently include this information on containers. The rule requires all coating or coating component manufacturers and importers to submit an initial report containing their name and mailing address, an explanation of coating or coating component date codes, if codes are used to represent the date of

manufacture or import, and a list of facilities where coatings or coating components are manufactured or imported. Reporting beyond the initial report is required only for the explanation of any new date codes used by manufacturers or importers, and for requests for variances. The information to be reported is not of a sensitive nature.

The EPA estimated the cost and hour burden of the information collection requirements of the rule. 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 includes the time needed to review instructions; 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; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The initial report must be submitted by all coating or coating component manufacturers and importers. Averaged over a 3 year period, the EPA estimates that the initial report will require 8 hours to complete, and will be submitted by 10 respondents annually. Beyond the initial report, the EPA estimates that 3 respondents per year will spend 2 hours each reporting the explanations of any new date codes used. The total annual cost of the reporting requirements of the proposed rule is \$3,200.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15. The EPA is amending the table in 40 CFR part 9 of currently approved information collection request control numbers issued by OMB for various regulations to list the information requirements contained in this final rule.

C. Executive Order 12866

Under Executive Order 12866 (58 FR 51735 (October 4, 1993)), the EPA must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of

this Executive Order to prepare a regulatory impact analysis (RIA). 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 final rule is not a "significant regulatory action" within the meaning of the executive order.

D. Executive Order 12875

To reduce the burden of federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled Enhancing the Intergovernmental Partnership. In particular, this executive order is designed to require agencies to assess the effects of regulations that are not required by statute and that create mandates upon State, local, or tribal governments. This regulation does not create mandates upon State, local, or tribal governments.

E. Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act of 1996

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601, *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), requires the EPA to give special consideration to the effect of Federal regulations on small entities and to consider regulatory options that might mitigate any such impacts. The EPA is required to prepare a regulatory flexibility analysis, including consideration of regulatory options for reducing any significant impacts, unless the Agency determines that a rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

The EPA performed an Initial Regulatory Flexibility Analysis (IRFA)

to determine the extent of any impacts under the proposed rule. This IRFA was included in the docket for the proposed rule. In the supplemental proposal, the EPA proposed to expand the class of regulated entities to include all automobile refinish coating component manufacturers and importers.

The EPA estimates there are about 20-25 companies producing automobile refinish coatings and coating components. At least 10 of these are large companies that have the majority of the industry market share. The EPA believes that the remaining 10-15 companies have fewer than 500 employees and are therefore small entities in accordance with Small Business Administration regulations applicable to this rule. Several of the small companies produce only thinners and reducers. The thinners/reducers used in low-VOC coatings are not significantly different from those used in conventional coatings; therefore, the rule will not have a significant impact on manufacturers of thinners/reducers because little, if any, reformulation of these components will be necessary under the rule. Some of the remaining small companies already produce low-VOC coatings and coating components because they operate in areas that already have State or local automobile refinish rules in effect. Most State and local rules are at least as stringent as the national rule. The EPA concludes, therefore, that the rule will not have a significant impact on these companies.

The remaining small companies will be impacted by the rule, but the EPA believes that the impact will not be significant. The impacts of the rule are from process modifications, training, and reporting requirements, as discussed in the IRFA. Process modifications are those changes that may be necessary for the production of low-VOC (high-solids) coatings, including the use of different mixing and pumping equipment. Some manufacturers affected by State and local rules have already complied with those rules by changing the recommended mixing ratios of components and have not changed the components themselves in a significant way; therefore, few process modifications have likely been necessary in these cases. Where process modifications are necessary, their impact will not be significant; when such impacts are examined assuming that they will be passed on to the user (as was done in the IRFA), the impacts do not significantly affect the cost of coatings or refinish jobs.

The EPA believes that the impacts from training and reporting

requirements of the final rule will be minimal. Many States have developed automobile refinish rules since the time the impacts analysis for the proposed national rule was performed, and the regulated entities have already taken steps to comply with such regulations. It is likely that most, if not all, regulated entities are already familiar with low-VOC coatings; therefore, the need for training (and, thus, training costs) are likely overstated in the analysis for the proposed rule. Training was estimated to cost less than \$500 per individual for the proposed rule. For small entities with few employees needing training, this cost would not be significant. Reporting requirements of the proposed rule consisted of an initial report that provides the EPA with basic information about regulated entities (name, location, etc.), and periodic reports (if necessary) to explain any new date codes that regulated entities may use to indicate the manufacture date of components. The EPA has retained the same labeling and reporting requirements in the final rule. Given the limited nature of the reporting requirements, the EPA believes that the impact of the reporting requirements of the final rule will not be significant.

The EPA does not have data sufficient to quantify precisely the impact of the rule by measures such as percentage of sales, but the nature of the impacts are such that the impacts will be small. The EPA bases this conclusion upon the information that was reasonably available to the Agency.

There are several aspects of the final rule which the EPA has included to minimize any impacts to small entities. First, the EPA has not required regulated entities to perform initial VOC testing of coatings or coating components or any of the coatings that might result from the combination of the entity's components with those of other regulated entities. The EPA believes that such an approach would have required regulated entities to perform numerous tests which, in the aggregate, could have imposed significant costs upon regulated entities. The EPA believes that such a requirement could have a disproportionate impact upon small entities. Instead, the EPA has linked responsibility for a coating's compliance with the regulated entity's recommendations for use. The EPA will assure compliance by "spot-checking" the VOC content of the coatings that result from such recommendations.

Second, the EPA has not required regulated entities to perform periodic VOC testing of coating or coating component batches. The EPA considered requiring regulated entities

periodically to test batches of their coatings or coating components to ensure that the VOC content of coatings resulting from the combination of such components would be compliant. As discussed above, compliance with the rule will be determined by the spot-checking of coatings. Regulated entities may rely on formulation data only to assure themselves of their compliance, or they may decide to perform some VOC testing for this purpose, but the EPA is not requiring batch testing. The EPA believes that not requiring batch testing will limit the impact upon regulated entities and, in particular, will help to alleviate impacts upon small entities.

Finally, the EPA has not required recordkeeping by regulated entities. The EPA considered requiring regulated entities to maintain records containing information on coating and coating component batches but determined that such records would not aid significantly in the enforcement of the standard. As stated above, the only reporting requirements are an initial report that allows the EPA to determine the universe of regulated entities, and reports that explain date codes if such codes are used to indicate the date of manufacture. The EPA believes that minimization of recordkeeping and reporting requirements will help to decrease impacts upon small entities.

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. Based on the results of the analysis at proposal (which was unaffected by public comments), the EPA concluded that this rule does not have a significant economic impact on a substantial number of small entities.

F. *Unfunded Mandates Act of 1995*

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate, or to the private sector, of \$100 million or more in any one year. Under section 205, the EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

Based upon the analysis presented in the EIA, the EPA has determined that the action promulgated today does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector, in any one year. Therefore, the requirements of Sections 202 and 205 of the Unfunded Mandates Reform Act do not apply to this action. The EPA has likewise determined that the final rule does not include regulatory requirements that would significantly or uniquely affect small governments. Thus, today's action is not subject to the requirements of section 203 of the Unfunded Mandates Act.

G. *Submission to Congress and the Comptroller General*

The Congressional Review Act, 5 U.S.C. § 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. § 804(2). This rule will be effective September 11, 1998.

H. *National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (the NTTAA), Pub. L. No. 104-113, § 12(d) (15 U.S.C. 272 note), directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices, etc.) that are developed or adopted by voluntary consensus standard bodies. The NTTAA requires the EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

Today's rule includes three test methods. To determine the VOC content of coatings, this rule specifies the use of

the EPA's Method 24. This method describes how to determine VOC content using several American Society for Testing and Materials (ASTM) methods. To determine the acid content of pretreatment wash primers, and to determine the specular gloss of topcoats, this rule specifies the use of other ASTM methods. The EPA proposed these voluntary consensus standards and received no adverse comment on their use for the stated purposes. In preparing the final rule, however, the EPA has investigated to determine the availability of any other existing voluntary consensus standards for use in lieu of the proposed methods. The EPA has searched for additional voluntary consensus standards that might be applicable. The search included use of the National Standards System Network, an automated service provided by the American National Standards Institute for identifying available national and international standards. The EPA has not identified any voluntary consensus standards that are not presently included in Method 24 and that would result in equivalent results. The EPA did identify another voluntary consensus method (ASTM D-3960) that provides instructions for calculating VOC content in many different units. Because this other method does not specify which units to use, it may result in inconsistent applications of the procedure and could make the standard more difficult to enforce. Consequently, the EPA determined that this other voluntary consensus method would be impractical to adopt. In addition, the EPA believes that it is appropriate to use Method 24 both because it has proven reliable and practical to achieve the goals of reducing VOC and because the EPA wishes to foster uniformity in testing nationwide. Accordingly, the EPA has determined that Method 24 constitutes the appropriate method for determining product compliance under this final rule. The EPA has located no alternative voluntary consensus standards more appropriate than those included in today's rule.

I. Executive Order 13045

Executive Order 13045 applies to any rule that the EPA determines (1) is economically significant as defined under Executive Order 12866, and (2) for which the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and

explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is not subject to Executive Order 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), because it is not an economically significant regulatory action as defined by Executive Order 12866, and it does not address an environmental health or safety risk that would have a disproportionate effect on children.

Executive Order 13084

Under Executive Order 13084, the EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or the EPA provides to the Office of Management and Budget a description of the prior consultation and communications the agency has had with representatives of tribal governments and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires the EPA to develop an effective process permitting elected and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities." Information available to the Administrator does not indicate that this action will have any effect on Indian tribal governments.

List of Subjects

40 CFR Part 9

Reporting and recordkeeping requirements.

40 CFR Part 59

Environmental protection, Air pollution control, Automobile refinishing, Consumer and commercial products, Incorporation by reference, Ozone, Volatile organic compound.

Dated: August 14, 1998.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345(d), and (e), 1381; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–i, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. Section 9.1 is amended by adding the new entries and a heading to the table in numerical order to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

40 CFR citation	OMB control No.
* * * * *	* * * * *
National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings: 59.105	2060–0353
* * * * *	* * * * *

1. Part 59 is added to read as follows:

PART 59—NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR CONSUMER AND COMMERCIAL PRODUCTS

Subpart A [Reserved]

Subpart B—National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

- Sec.
- 59.100 Applicability and designation of regulated entity.
- 59.101 Definitions.
- 59.102 Standards.
- 59.103 Container labeling requirements.
- 59.104 Compliance provisions.
- 59.105 Reporting requirements.
- 59.106 Variance.
- 59.107 Addresses of EPA Regional offices.
- 59.108 State Authority.
- 59.109 Circumvention.
- 59.110 Incorporations by reference.
- 59.111 Availability of information and confidentiality.

Table 1 to Subpart B—Volatile Organic Compound (VOC) Content Limits for Automobile Refinish Coatings

Authority: 42 U.S.C. 7511b(e).

Subpart A—[Reserved]**Subpart B—National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings****§ 59.100 Applicability and designation of regulated entity.**

(a) The provisions of this subpart apply to automobile refinish coatings and coating components manufactured on or after January 11, 1999 for sale or distribution in the United States.

(b) Regulated entities are manufacturers and importers of automobile refinish coatings or coating components that sell or distribute these coatings or coating components in the United States.

(c) The provisions of this subpart do not apply to automobile refinish coatings or coating components meeting the criteria in paragraphs (c)(1) through (c)(6) of this section.

(1) Coatings or coating components that are manufactured (in or outside the United States) exclusively for sale outside the United States.

(2) Coatings or coating components that are manufactured (in or outside the United States) before January 11, 1999.

(3) Coatings or coating components that are manufactured (in or outside the United States) for use by original equipment manufacturers.

(4) Coatings that are sold in nonrefillable aerosol containers.

(5) Lacquer topcoats or their components.

(6) Touch-up coatings.

§ 59.101 Definitions.

Adhesion promoter means a coating designed to facilitate the bonding of a primer or topcoat on surfaces such as trim moldings, door locks, and door sills, where sanding is impracticable, and on plastic parts and the edges of sanded areas.

Administrator means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or an authorized representative.

Automobile means passenger cars, vans, motorcycles, trucks, and all other mobile equipment.

Automobile refinish coating component means any portion of a coating, such as a reducer or thinner, hardener, additive, etc., recommended (by its manufacturer or importer) to distributors or end-users for automobile refinishing. The raw materials used to produce the components that are mixed by the end-user to prepare a coating for application are not considered automobile refinish coating components. Any reference to automobile refinishing made by a

manufacturer or importer on a container or in product literature constitutes a recommendation for automobile refinishing.

Automobile refinish coating or coating component importer, or importer, means any company, group, or individual that brings automobile refinish coatings or coating components from a location outside the United States into the United States for sale or distribution in the United States.

Automobile refinish coating or coating component manufacturer, or manufacturer, means any company, group, or individual that produces or packages automobile refinish coatings or coating components for sale or distribution in the United States, including an entity which produces or packages such coatings or coating components under a private label for another party.

Automobile refinishing means the process of coating automobiles or their parts, including partial body collision repairs, that is subsequent to the original coating applied at an automobile original equipment manufacturing plant.

Container means the individual receptacle that holds a coating or coating component for storage and distribution.

Cut-in, or jambing, clearcoat means a fast-drying, ready-to-spray clearcoat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.

Elastomeric coating means a coating designed for application over flexible parts, such as elastomeric bumpers.

Exempt compounds means specific organic compounds that are not considered volatile organic compounds due to negligible photochemical reactivity. The exempt compounds are specified in § 51.100(s) of this chapter.

Hardener means a coating component specifically designed to promote a faster cure of an enamel finish.

Impact-resistant coating means a coating designed to resist chipping caused by road debris.

Label means any written, printed, or graphic matter affixed to or appearing upon any automobile refinish coating or coating component container or package for purposes of identifying or giving information on the product, use of the product, or contents of the container or package.

Lacquer means a thermoplastic coating which dries primarily by solvent evaporation, and which is resolvable in its original solvent.

Low-gloss coating means a coating which exhibits a gloss reading less than or equal to 25 on a 60° glossmeter.

Mixing instructions means the coating or coating component manufacturer's or importer's specification of the quantities of coating components for mixing a coating.

Mobile equipment means any equipment that is physically capable of being driven or drawn upon a highway including, but not limited to, the following types of equipment: construction vehicles (such as mobile cranes, bulldozers, concrete mixers); farming equipment (wheel tractor, plow, pesticide sprayer); hauling equipment (truck trailers, utility bodies, camper shells); and miscellaneous equipment (street cleaners, golf carts).

Multi-colored topcoat means a topcoat that exhibits more than one color, is packaged in a single container, and camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

Pretreatment wash primer means a primer that contains a minimum of 0.5 percent acid, by weight, that is applied directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent coatings.

Primer means any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and/or adhesion.

Primer-sealer means any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and/or color uniformity and to promote the ability of an undercoat to resist penetration by the topcoat.

Primer-surfacer means any coating applied prior to the application of a topcoat for the purpose of filling surface imperfections in the substrate, corrosion resistance, and/or adhesion of the topcoat.

Reducer means any solvent used to thin enamels.

Underbody coating means a coating designed for protection and sound deadening that is typically applied to the wheel wells and underbody of an automobile.

Single-stage topcoat means a topcoat consisting of only one coating.

Specialty coatings means adhesion promoters, low-gloss coatings, bright metal trim repair coatings, jambing (cut-in) clearcoats, elastomeric coatings, impact resistant coatings, underbody coatings, uniform finish blenders, and weld-through primers.

Thinner means any solvent used to reduce the viscosity or solids content of a coating.

Three-stage topcoat means a topcoat composed of a pigmented basecoat, a midcoat, and a transparent clearcoat.

Topcoat means any coating or series of coatings applied over a primer or an existing finish for the purpose of protection or beautification.

Touch-up coating means a coating applied by brush, air-brush, or nonrefillable aerosol can to cover minor surface damage.

Two-stage topcoat means a topcoat consisting of a pigmented basecoat and a transparent clearcoat.

Uniform finish blender means a coating designed to blend a repaired topcoat into an existing topcoat.

United States means the United States of America, including the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and Commonwealth of the Northern Mariana Islands.

Volatile organic compounds or *VOC* means any compound of carbon, other than those organic compounds that the Administrator has excluded in 40 CFR part 51, § 51.100 from this definition.

VOC content means the weight of VOC per volume of coating, calculated according to the procedures in § 59.104(a) of this subpart.

Water hold-out coating means a coating applied to the interior cavity areas of doors, quarter panels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.

Weld-through primer means a primer that is applied to an area before welding is performed, and that provides corrosion resistance to the surface after welding has been performed.

§ 59.102 Standards.

(a) Except as provided in § 59.106 of this subpart, any coating resulting from the mixing instructions of a regulated entity must meet the VOC content limit given in table 1 of this subpart. VOC content is determined according to § 59.104(a).

(b) Different combinations or mixing ratios of coating components constitute different coatings. For example, coating components may be mixed one way to make a primer, and mixed another way to make a primer sealer. Each of these coatings must meet its corresponding VOC content limit in table 1 of this subpart. If the same combination and mixing ratio of coating components is recommended by a regulated entity for use in more than one category in table 1 of this subpart, then the most restrictive VOC content limit shall apply.

§ 59.103 Container labeling requirements.

Each regulated entity subject to this subpart must clearly display on each

automobile refinish coating or coating component container or package, the day, month, and year on which the product was manufactured, or a code indicating such date.

§ 59.104 Compliance provisions.

(a) For the purpose of determining compliance with the VOC content limits in § 59.102(a) of this subpart, each regulated entity shall determine the VOC content of a coating using the procedures described in paragraph (a)(1) or (a)(2) of this section, as appropriate.

(1) Determine the VOC content in grams of VOC per liter of coating prepared for application according to its mixing instructions, excluding the volume of any water or exempt compounds. VOC content shall be calculated using the following equation:

$$\text{VOC} = \frac{(W_v - W_w - W_{ec})}{(V - V_w - V_{ec})}$$

Where:

VOC content = grams of VOC per liter of coating;

W_v = mass of total volatiles, in grams;

W_w = mass of water, in grams;

W_{ec} = mass of exempt compounds, in grams;

V = volume of coating, in liters;

V_w = volume of water, in liters; and

V_{ec} = volume of exempt compounds, in liters.

(2) The VOC content of a multi-stage topcoat shall be calculated using the following equation:

$$\text{VOC}_{\text{multi}} = \frac{\text{VOC}_{\text{bc}} \sum_{i=0}^M \text{VOC}_{\text{mci}} + 2(\text{VOC}_{\text{cc}})}{M + 3}$$

Where:

$\text{VOC}_{\text{multi}}$ = VOC content of a multi-stage topcoat, in grams of VOC per liter of coating;

VOC_{bc} = VOC content of the basecoat, as determined in paragraph (a)(1) or (f) of this section;

VOC_{mci} = VOC content of midcoat i , as determined in paragraph (a)(1) or (f) of this section;

VOC_{cc} = VOC content of the clearcoat, as determined in paragraph (a)(1) or (f) of this section; and

M = Number of midcoats.

(b) To determine the composition of a coating in order to perform the calculations in paragraph (a) of this section, the reference method for VOC content is Method 24 of appendix A of 40 CFR part 60, except as provided in paragraph (f) of this section. To determine the VOC content of a coating, the regulated entity may use Method 24 of appendix A of 40 CFR part 60, an

alternative method as provided in paragraph (f) of this section, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern. The Administrator may require the regulated to conduct a Method 24 analysis.

(c) If a regulated entity recommends that its coating component(s) be combined with coating components of another regulated entity, and if the coating resulting from such a combination does not comply with the VOC content limit in § 59.102 (a) of this subpart, then the former regulated entity is out of compliance, unless the entity submits Method 24 data to the Administrator demonstrating that its recommended combination of coating components meets the VOC content limit in § 59.102(a). If the latter regulated entity does not make the recommendation of such use of the coating components, then that entity is not out of compliance for purposes of that resulting coating.

(d) Pretreatment wash primers: Except as provided in paragraph (f) of this section, the acid weight percent of pretreatment wash primers must be determined using the American Society for Testing and Materials Test Method D 1613-96 (incorporated by reference in § 59.110). If the pigment in a pretreatment wash primer prevents the use of this test method for determining the acid weight percent of the coating, then the test method shall be used for the nonpigmented component of the coating, and the acid weight percent shall be calculated based on the acid content of the nonpigmented component and the mixing ratio of the nonpigmented component to the remaining components recommended by the regulated entity.

(e) Low-gloss coatings: Except as provided in paragraph (f) of this section, the gloss reading of low-gloss coatings must be determined using the American Society for Testing and Materials Test Method D 523-89 (incorporated by reference in § 59.110).

(f) The Administrator may approve, on a case-by-case basis, a regulated entity's use of an alternative method in lieu of Method 24 for determining the VOC content of coatings if the alternative method is demonstrated to the Administrator's satisfaction to provide results that are acceptable for purposes of determining compliance with this subpart.

(g) The Administrator may determine a regulated entity's compliance with the provisions of this subpart based on information required by this subpart or any other information available to the Administrator.

§ 59.105 Reporting requirements.

(a) Each regulated entity must submit an initial report no later than January 11, 1999 or within 180 days of the date that the regulated entity first manufactures or imports automobile refinish coatings or coating components, whichever is later. The initial report must include the information in paragraphs (a)(1) through (a)(4) of this section.

(1) The name and mailing address of the regulated entity.

(2) An explanation of each date code, if such codes are used to represent the date of manufacture, as provided in § 59.103.

(3) The street address of each of the regulated entity's facilities in the United States that is producing, packaging, or importing automobile refinish coatings or coating components subject to the provisions of this subpart.

(4) A list of the categories from table 1 of this subpart for which the regulated entity recommends the use of automobile refinish coatings or coating components.

(b) Each regulated entity must submit an explanation of any new date codes used by the regulated entity no later than 30 days after products bearing the new date code are first introduced into commerce.

§ 59.106 Variance.

(a) Any regulated entity that cannot comply with the requirements of this subpart because of circumstances beyond its reasonable control may apply in writing to the Administrator for a temporary variance. The variance application must include the information specified in paragraphs (a)(1) through (a)(3).

(1) The specific grounds upon which the variance is sought.

(2) The proposed date(s) by which the regulated entity will achieve compliance with the provisions of this subpart. This date must be no later than 5 years after the issuance of a variance.

(3) A compliance plan detailing the method(s) by which the regulated entity will achieve compliance with the provisions of this subpart.

(b) Upon receipt of a variance application containing the information required in paragraph (a) of this section, the Administrator will publish a notice of such application in the **Federal Register** and, if requested by any party,

will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements of this subpart is necessary and will be granted. If requested, a hearing will be held no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing will be sent to the applicant by certified mail not less than 30 days prior to the hearing. At least 30 days prior to the hearing, the variance application will be made available to the public for inspection. Information submitted to the Administrator by a variance applicant may be claimed as confidential. The Administrator may consider such confidential information in reaching a decision on a variance application. Interested members of the public will be allowed a reasonable opportunity to testify at the hearing.

(c) The Administrator will issue a variance if the criteria specified in paragraphs (c)(1) and (c)(2) are met to the satisfaction of the Administrator.

(1) If complying with the provisions of this subpart would not be technologically or economically feasible, and

(2) The compliance plan proposed by the applicant can reasonably be implemented and will achieve compliance as expeditiously as possible.

(d) Any variance will specify dates by which the regulated entity will achieve increments of progress towards compliance, and will specify a final compliance date by which the regulated entity will achieve compliance with this subpart.

(e) A variance will cease to be effective upon failure of the party to whom the variance was issued to comply with any term or condition of the variance.

(f) Upon the application of any party, the Administrator may review and, for good cause, modify or revoke a variance after holding a public hearing in accordance with the provisions of paragraph (b) of this section.

§ 59.107 Addresses of EPA Regional Offices.

All requests, reports, submittals, and other communications to the Administrator pursuant to this regulation shall be submitted to the Regional Office of the EPA which serves the State or territory in which the corporate headquarters of the regulated entity resides. These areas are indicated in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of

Environmental Stewardship, Mailcode: SAA, JFK Building, Boston, MA 02203.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Division of Enforcement and Compliance Assistance, 290 Broadway, New York, NY 10007-1866.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics, Management Division, 345 Courtland Street, NE., Atlanta, GA 30365.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics Division, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Toxics Division, 726 Minnesota Avenue, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, Colorado 80202-2405.

EPA Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada), Director, Air and Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Toxics Division, 1200 Sixth Avenue, Seattle, WA 98101.

§ 59.108 State Authority.

The provisions in this regulation shall not be construed in any manner to preclude any State or political subdivision thereof from:

(a) Adopting and enforcing any emission standard or limitation applicable to a manufacturer or importer of automobile refinish coatings or components in addition to the requirements of this subpart.

(b) Requiring the manufacturer or importer of automobile refinish coatings or components to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing an automobile refinish coating component.

§ 59.109 Circumvention.

Each manufacturer and importer of any automobile refinish coating or component subject to the provisions of this subpart must not alter, destroy, or falsify any record or report, to conceal what would otherwise be noncompliance with this subpart. Such concealment includes, but is not limited to, refusing to provide the Administrator access to all required records and date-

coding information, altering the VOC content of a coating or component batch, or altering the results of any required tests to determine VOC content.

§ 59.110 Incorporations by Reference.

(a) The following material is incorporated by reference in the paragraphs noted in § 59.104. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the **Federal Register**.

(1) ASTM D 1613-96, Standard Test Method for Acidity in Volatile Solvents

and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, IBR approved for § 59.104(d).

(2) ASTM D 523-89, Standard Test Method for Specular Gloss, IBR approved for § 59.104(e).

(b) The materials are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC; the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street, SW, Washington, DC; and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina. The materials are available for purchase from the following address: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA,

19428, telephone number (610) 832-9500.

§ 59.111 Availability of information and confidentiality.

(a) Availability of information. The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) Confidentiality. All confidential business information entitled to protection under section 114(c) of the Act that must be submitted or maintained by each regulated entity pursuant to this section shall be treated in accordance with 40 CFR part 2, subpart B.

TABLE 1 TO SUBPART B.—VOLATILE ORGANIC COMPOUND (VOC) CONTENT LIMITS FOR AUTOMOBILE REFINISH COATINGS

Coating category	Grams VOC per liter	Pounds VOC per gallon ^a
Pretreatment wash primers	780	6.5
Primers/primer surfacers	580	4.8
Primer sealers	550	4.6
Single/two-stage topcoats	600	5.0
Topcoats of more than two stages	630	5.2
Multi-colored topcoats	680	5.7
Specialty coatings	840	7.0

^a English units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

[FR Doc. 98-22657 Filed 9-10-98; 8:45 am]
BILLING CODE 6560-50-p

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 59

[AD-FRL-6149-8]

RIN 2060-AF62

National Volatile Organic Compound Emission Standards for Consumer Products

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national volatile organic compound (VOC) emission standards for certain categories of consumer products pursuant to section 183(e) of the Clean Air Act (Act). This final rule is based on the Administrator's determination that VOC emissions from the use of consumer products can cause or contribute to ozone levels that violate the national ambient air quality standards (NAAQS) for ozone. Ozone is a major component of smog which causes negative health and

environmental impacts when present in high concentrations at ground level. The final rule is estimated to reduce VOC emissions by 90,000 tons per year (tpy) by requiring manufacturers, importers, and distributors to limit the VOC content of consumer products. The EPA developed these requirements in consultation with major stakeholders and these requirements are similar to existing standards in certain States. To date, many companies have taken steps to reformulate their products to emit less VOC.

EFFECTIVE DATE: The effective date is September 11, 1998. The incorporation by reference of certain publications listed in the regulation is approved by the Director of the Federal Register as of September 11, 1998.

ADDRESSES: *Background Information Document.* The background information document (BID) for the promulgated consumer product standards (referred to as the "CP-BID") may be obtained from the docket for this rulemaking and is also available for downloading from the Technology Transfer Network (TTN) at "http://www.epa.gov/ttn/oarpg/remain.html," or from the United States Environmental Protection Agency Library (MD-35), Research Triangle Park, North Carolina 27711, telephone

(919) 541-2777. Please refer to "National Volatile Organic Compound Emission Standards for Consumer Products—Background for Promulgated Standards" (EPA Document Number 453/R-98-008B). The CP-BID contains a summary of the changes made to the standards since proposal, a summary of all the public comments made on the standards, and EPA's responses to the comments.

Docket. Docket No. A-95-40, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8:00 a.m. to 5:30 p.m. Monday through Friday, at the EPA's Air and Radiation Docket and Information Center, Waterside Mall, Room M-1500, Ground Floor, 401 M Street, SW, Washington, DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Bruce Moore at (919) 541-5460, Coatings and Consumer Products Group, Emission Standards Division (MD-13), United States Environmental Protection Agency, Research Triangle Park, North Carolina 27711 (moore.bruce@epa.gov).

SUPPLEMENTARY INFORMATION:

Regulated Entities. Regulated categories and entities include:

FINAL AIR REGULATION FOR AUTOMOBILE REFINISH COATINGS

TODAY'S ACTION...

The Environmental Protection Agency (EPA) is today promulgating a regulation to control volatile organic compound (VOC) emissions from automobile refinish coatings. Coatings, such as primers and topcoats, are mostly used by painters at body shops to refinish cars and trucks.

EPA developed the rule with extensive input from major stakeholders, including industry representatives and state and local agencies.

Today's action demonstrates EPA's commitment to making pollution prevention an integral part of regulatory actions whenever possible. The requirements outlined in the rule are based on product reformulation, a pollution prevention method.

WHAT ARE THE HEALTH AND ENVIRONMENTAL BENEFITS?

EPA's rule would reduce emissions of volatile organic compounds (VOCs) nationwide by 32,000 tons annually, representing a 33 percent reduction from current levels. VOCs contribute significantly to the formation of ground-level ozone (smog). Exposure to ground-level ozone can damage lung tissue and cause serious respiratory illness; it can also damage agricultural crops.

WHY IS EPA REGULATING AUTOMOBILE REFINISH COATINGS?

In March 1995, EPA issued a report to Congress, Study of Volatile Organic Compound Emissions from Consumer and Commercial Products, which evaluated the contribution of VOC emissions from consumer and commercial products to ground-level ozone levels, and established criteria and a schedule for regulating these products under the Clean Air Act. Automobile Refinish Coatings is among the first group of products to be regulated.

In the past, the Clean Air Act has focused on reducing VOC emissions from mobile sources (cars and trucks) and stationary sources, such as power plants and factories. Requiring additional controls on these sources may be very costly for the emissions reductions achieved. Regulating consumer and commercial products, such as automobile refinish coatings, is often a more cost-effective way of substantially reducing VOC emissions nationwide. Consumer and commercial products, such as surface coatings and metal cleaning solvents, automobile refinish coatings, personal care products, and household cleaning products, contribute about 6 million tons (approximately 30 percent) annually of VOC emissions nationwide.

Under the Clean Air Act Amendments of 1990, EPA is required to 1.) study emissions of VOCs from consumer and commercial products; 2.) list those categories of products that account for at least 80 percent of the total VOC emissions from consumer and commercial products in areas of the country that fail to meet the national air quality standards set for ground-level ozone; and 3.) divide the list into four groups, and regulate one group every two years using best available controls, as defined by the Clean Air Act.

WHAT DOES THE REGULATION REQUIRE?

EPA's regulation is based on best available controls, as defined under the Clean Air Act, and sets specific VOC content limits on 7 categories of automobile refinish coatings (generally classified as primers and topcoats). VOC limits would be met by the pollution prevention method of product reformulation, requiring the use of coatings with lower VOC content than the coatings currently in use. Most manufacturers already produce low-VOC coatings.

WHO WOULD BE AFFECTED BY THE REGULATION?

EPA's rule would affect approximately 5 large automobile refinish coating component manufacturers and importers and an additional 10-15 smaller manufacturers. EPA's regulation does not affect the application of automobile refinish coatings, and therefore body shops nationwide are not directly affected by the regulation's requirements.

Several states have previously moved ahead with their own regulations for these coatings. EPA's rule will minimize the likelihood that companies will have to manufacture several different types of coatings to meet a "patchwork" of state regulations.

Automobile refinish coating regulations currently in place in some states require VOC content limits on coatings as they are applied in body shops. Therefore, body shops are required, in most cases, to keep extensive records on the amount of each coating used, its VOC content, etc. This record keeping requirement can be time consuming and complicated for some body shops.

In contrast, EPA's rule would affect only the manufacturers and importers of automobile refinish coating components. Therefore, body shops would not be subject to any federal

record keeping requirements; however, some states may decide to keep their record keeping requirements after the national rule is effective.

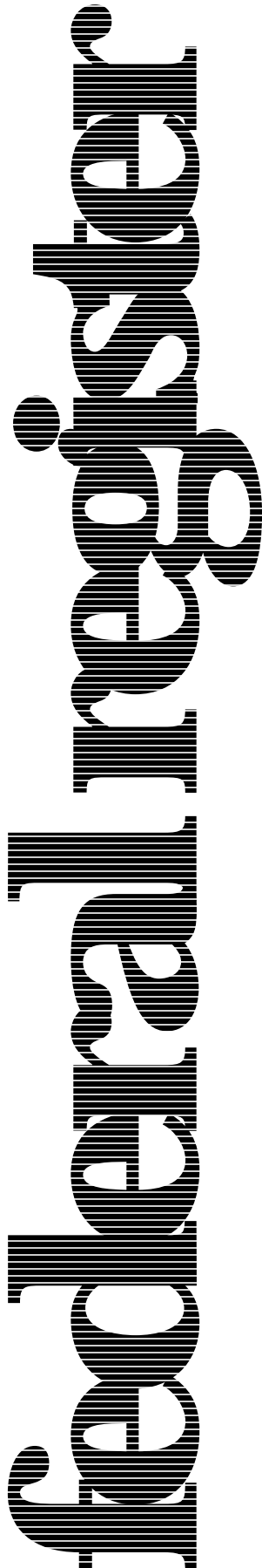
HOW MUCH DOES THE REGULATION COST?

The annual cost of the rule is approximately \$5 million. Much of the regulation's costs results from the training of coating manufacturer and distributor representatives, and body shop personnel in the use of low-VOC coatings.

FOR FURTHER INFORMATION...

Interested parties can obtain the final rule from EPA's website on the Internet under "recent actions" at the following address: (<http://www.epa.gov/ttn/oarpg>). The notice and background documentation is also available through EPA's Air and Radiation Docket and Information Center (Docket Number A-92-18) by calling (202) 260-7548 or FAX (202) 260-4000 (a reasonable fee may be charged for copying). For further information about the rule, contact Mark Morris of EPA's Office of Air Quality Planning and Standards at (919) 541-5416 or by electronic mail at: morris.mark@epa.gov.

The EPA's Office of Air and Radiation's home page on the Internet contains a wide range of information on air pollution programs and issues. The Office of Air and Radiation's home page address is: (<http://www.epa.gov/oar/>).



Friday
September 11, 1998

Part II

**Environmental
Protection Agency**

**40 CFR Chapter I
Consumer and Commercial Products:
Schedule for Regulation; Final Rule**

**40 CFR Parts 9 and 59
National Volatile Organic Compound
Emission Standards for Automobile
Refinish Coatings and Consumer
Products; Final Rules**

**40 CFR Part 59
National Volatile Organic Compound
Emission Standards for Architectural
Coatings; Final Rule**

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Chapter I

[AD-FRL-6149-6]

RIN 2060-AE24

Consumer and Commercial Products: Schedule for Regulation

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final listing of product categories for regulations.

SUMMARY: This document announces the EPA's final decision to list the consumer products, architectural coatings, and automobile refinish coatings categories for regulation in the first group of consumer and commercial product categories for which regulations are mandated under section 183(e) of the Clean Air Act. The final rules for these three categories are published elsewhere in today's **Federal Register**.

DATES: This decision is effective September 11, 1998.

ADDRESSES: *Technical Support Document.* The background information document (BID) containing the Administrator's responses to significant comments on the section 183(e) study and Report to Congress (referred to as the "183-BID") may be obtained from the docket; the United States Environmental Protection Agency Library (MD-35), Research Triangle Park, North Carolina 27711, telephone (919) 541-2777; or from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22151, telephone (703) 487-4650. Please refer to "Response to Comments on Section 183(e) Study and Report to Congress." The 183-BID contains a summary of all the significant public comments made on the section 183(e) study and Report to Congress and the list and schedule for regulation as well as the Administrator's responses to the comments.

Docket. Docket No. A-94-65 contains information considered by the EPA in development of the consumer and commercial products study and the subsequent list and schedule for regulation. Comments on the section 183(e) Report to Congress (Report) and the list and schedule of consumer product categories to be regulated were received in four different dockets: (1) the consumer and commercial product Report docket (A-94-65); (2) the architectural coatings rulemaking docket (A-92-18); (3) the consumer products rulemaking docket (A-95-40); and (4) the automobile refinish coatings rulemaking docket (A-95-18). The dockets are available for public inspection and copying from 8:00 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays. The dockets are located at the EPA's Air and Radiation Docket and Information Center, Waterside Mall, Room M1500, 1st Floor, 401 M Street SW, Washington, DC 20460; telephone (202) 260-7546 or fax (202) 260-4400. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Bruce Moore at (919) 541-5460, Coatings and Consumer Products Group, Emission Standards Division (MD-13), United States Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION:

Background

Under section 183(e) of the Act, the EPA was required to conduct a study of volatile organic compounds (VOC) emissions from the use of consumer and commercial products to assess their potential to contribute to levels of ozone that violate the national ambient air quality standards (NAAQS) for ozone, and to establish criteria for regulating VOC emissions from these products. Section 183(e) also directed the EPA to list for regulation those categories of products that emit at least 80 percent of the VOC emissions into nonattainment

areas, and to schedule those categories for regulation in four groups. Ozone is a major component of smog which causes negative health and environmental impacts when present in high concentrations at ground level.

On March 23, 1995, the EPA submitted the consumer and commercial products Report to Congress required by section 183(e) of the CAA. On March 23, 1995, the EPA also published in the **Federal Register** a summary of the Report to Congress along with the list of product categories and the schedule for their regulation. As stated by the EPA, the March 23, 1995 notice did not represent a final Agency action on the listing determination. The notice announced that the EPA would take comment on the listing in connection with its rulemakings on emission standards for the categories on the initial list, and that final Agency action on the listing for each product category would occur upon publication of a final regulation for that category. The EPA received comments on the section 183(e) study, the Report to Congress, and the list and schedule of consumer and commercial products for regulation in response to the three proposed section 183(e) rules for the categories of consumer products, architectural coatings, and automobile refinish coatings, and the March 23, 1995 notice. This notice presents a summary of significant public comments and the EPA's responses. Based upon the study and the Report to Congress, the EPA has concluded that these three categories are properly within the first group of product categories for regulation.

Regulated Entities. Entities potentially affected by this action are manufacturers and distributors of consumer products, manufacturers and importers of architectural coatings, and manufacturers and importers of automobile refinish coatings or their components. Regulated categories and entities include:

Category	Examples of regulated entities
Industry	Manufacturers or distributors of consumer products. Manufacturers, packagers, repackagers, or importers of architectural coatings. Manufacturers or importers of automobile refinish coatings or their components.
State/local/tribal governments	State Agencies that manufacture their own consumer products or coatings.

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

listed in the table could also be interested. For additional information on applicability of these rules, please see the final rules published elsewhere in this **Federal Register** for these three categories of products. 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.

Judicial review. The initial listing of product categories and schedule for regulation was published on March 23,

1995 (60 FR 15264). This document announces the EPA's final decision to list consumer products, architectural coatings, and antibody refinishing categories for regulation under the first group of consumer and commercial product categories for which regulations are mandated under section 183(e) of the Act. Under section 307(b)(1) of the Act, judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by November 10, 1998. Under section 307(d)(7)(B) of the Act, only an objection to this action which was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the Act, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by the EPA to enforce these requirements.

Technology Transfer Network. The Technology Transfer Network (TTN) provides information and technology exchange in various areas of air pollution control, including copies of the Report to Congress, all the proposed and final actions under section 183(e), and supporting documents. The TTN is free and is accessible through the Internet at "http://www.epa.gov/ttn/oarpg/ramain.html." For more information on the TTN, call the HELP line at (919) 541-5384.

Outline. The information presented in this preamble is organized as follows:

I. Background

- A. Purpose of regulation.
- B. Section 183(e) of the Act.
- C. Publication of the list and schedule for regulation.
- D. Regulatory criteria and ranking of product categories.

II. Significant Comments on Section 183(e) Study and Report to Congress

- A. Legitimacy of the Environmental Protection Agency's section 183(e) study.
 1. Reactivity.
 2. Role of consumer and commercial products in contributing to ozone nonattainment.
 3. Consideration of "emission magnitude" and "regulatory efficiency."
- B. Consumer and commercial product inventory.
 1. Role of biogenic emissions.
 2. Listing of biogenic products.
- C. The Environmental Protection Agency's regulatory strategy.
 1. Nitrogen oxides versus volatile organic compounds emissions control strategies.
 - a. Background: The current ozone control policy.
 - b. Effectiveness of a national volatile organic compounds control strategy.
 - c. Recent scientific studies.
 - d. Contribution of biogenic volatile organic compounds sources versus

anthropogenic sources to ozone nonattainment.

- e. The role of long-range transport of nitrogen oxides in ozone nonattainment.
 - f. The Environmental Protection Agency's approach in determining the effects of precursor emissions on ozone nonattainment.
2. Regulation of attainment areas via national rules.

III. Administrative Requirements

- A. Docket.
- B. Paperwork Reduction Act.
- C. Executive Order 12866.
- D. Executive Order 12875.
- E. Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act of 1996.
- F. Unfunded Mandates Reform Act of 1995.
- G. Submission to Congress and the General Accounting Office.
- H. National Technology Transfer and Advancement Act.
- I. Executive Order 13045.

I. Background

A. Purpose of Regulation

Ground-level ozone, which is a major component of "smog," is formed in the atmosphere by reactions of VOC and oxides of nitrogen (NO_x) in the presence of sunlight. The formation of ground-level ozone is a complex process that is affected by many variables.

Exposure to ground-level ozone is associated with a wide variety of human health effects, agricultural crop loss, and damage to forests and ecosystems. Acute health effects are induced by short-term exposures to ozone (observed at concentrations as low as 0.12 parts per million (ppm)), generally while individuals are engaged in moderate or heavy exertion, and by prolonged exposures to ozone (observed at concentrations as low as 0.08 ppm), typically while individuals are engaged in moderate exertion. Moderate exertion levels are more frequently experienced by individuals than heavy exertion levels. The acute health effects include respiratory symptoms, effects on exercise performance, increased airway responsiveness, increased susceptibility to respiratory infection, increased hospital admissions and emergency room visits, and pulmonary inflammation. Groups at increased risk of experiencing such effects include active children, outdoor workers, and others who regularly engage in outdoor activities and individuals with preexisting respiratory disease. Currently available information also suggests that long-term exposures to ozone may cause chronic health effects (e.g., structural damage to lung tissue and accelerated decline in baseline lung function).

In accordance with section 183(e) of the Act, the Administrator has

determined that VOC emissions from the use of consumer products, architectural coatings, and automobile refinishing coatings have the potential to contribute to ozone levels that violate the NAAQS for ozone. Under authority of section 183(e), the EPA conducted a study of the VOC emissions from consumer and commercial products to determine their potential to contribute to ozone levels which violate the NAAQS for ozone. Based on the results of the study, the EPA determined that these categories of consumer products account for about 30 percent of the emissions from all consumer and commercial products. The EPA's determination that VOC emissions from the use of these categories of consumer and commercial products have the potential to contribute to nonattainment of the ozone NAAQS and the decisions to regulate these categories were discussed in the preambles to the proposed rules (61 FR 4531; 61 FR 19005; 61 FR 32729), in the Report to Congress on Consumer and Commercial Products (EPA 453/R-94-066A), and in the **Federal Register** document announcing the schedule for regulation (60 FR 15264).

B. Section 183(e) of the Act

Section 183(e) of the Act mandates a new regulatory program for controlling VOC emissions. Through this provision, Congress required the EPA to conduct a study of emissions of VOC into the ambient air from consumer and commercial products and to list for regulation, based on the study, certain categories of products that have the potential to contribute to ozone nonattainment.

The term "consumer and commercial products" is defined in section 183(e) of the Act to mean:

* * * any substance, product (including paints, coatings, and solvents), or article (including any containers or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of volatile organic compounds.

The statutory definition of consumer and commercial products thus includes a much broader array of products than those usually considered to be consumer products (e.g., personal care products, household cleaning products, or household pesticides) because it encompasses all VOC-emitting products used in the home, by businesses, and by institutions.

The stated objectives of the consumer and commercial products study mandated in section 183(e) of the Act were: (1) to determine the potential of VOC emissions from consumer and

commercial products to contribute to ozone levels which violate the ozone NAAQS; and (2) to establish criteria for regulating consumer and commercial products. In establishing criteria for regulating products, the Act required the Administrator to consider the following five factors: (1) the uses, benefits, and commercial demand of products; (2) the health or safety functions served by such products; (3) whether products emit highly reactive VOC into the ambient air; (4) the relative cost-effectiveness of controls for products; and (5) the availability of alternative products which are of comparable costs, considering health, safety, and environmental impacts.

Upon completion of the study, section 183(e) required the EPA to submit a report to Congress documenting the results of the study. The Act further required the EPA to list those categories of products that it determined, based on the study, account for at least 80 percent of the total VOC emissions, on a reactivity-adjusted basis, from consumer and commercial products in areas that violate the ozone NAAQS. In addition, section 183(e) required the EPA to divide the list of products into four groups establishing priority for regulation. Every 2 years following publication of the list, the EPA is required to regulate one group of categories until all four groups are regulated.

C. Publication of the List and Schedule for Regulation

In March 1995, the EPA submitted the consumer and commercial products Report to Congress required by section 183(e) of the Act. A summary of the 6-volume report (EPA-453/R-94-066-a through f) was published in the **Federal Register** on March 23, 1995 (60 FR 15264). In the same document, the list of products and the schedule for their regulation was published (60 FR 15267). Consumer products, architectural coatings, and autobody refinishing were included in Group 1 of the schedule for which the Act requires the EPA to promulgate regulations within 2 years of publication of the Report to Congress (i.e., by March 1997). The March 23, 1995 document stated that the list and schedule for regulation were not final EPA actions. As stated in the March 23 document:

Although today's document identifies consumer and commercial products that potentially could be regulated, this list and schedule may be amended as further information becomes available or is submitted to the EPA. The public will have an opportunity to comment on the listing and possible regulation of a particular product at

the time the EPA proposes to regulate that particular product. Thus, today's action does not represent final Agency action. Final Agency action occurs upon publication of a final regulation for each product.

Although not requested, the EPA received some public comments in response to the preliminary listing document (60 FR 15264). These comments were placed in a docket (A-94-65). However, because the EPA intended the list and schedule to be an interim step in the development of regulations rather than final EPA action, the EPA held no public hearing on the Report to Congress and the listing and schedule, and prepared no responses to the comments at that time. Instead, the EPA requested that the public submit comments on the section 183(e) list and schedule resulting from the study at the time of proposal of regulations for each particular consumer and commercial product category.

Final regulations are being published today for the consumer products, architectural coatings, and autobody refinishing categories. In developing these regulations, the EPA has taken into account all of the public comments received on the criteria for listing and regulating these categories, including comments submitted on the March 23, 1995 document. Thus, today's action represents a final EPA listing action on these three categories.

D. Regulatory Criteria and Ranking of Product Categories

As directed in section 183(e)(2)(B) of the Act, the EPA utilized the five factors in the statute to develop the following eight criteria for use in establishing the list of consumer and commercial product categories to be regulated:

- (1) Utility,
- (2) commercial demand,
- (3) health and safety functions,
- (4) emissions of highly reactive VOC,
- (5) availability of alternatives,
- (6) cost-effectiveness of controls,
- (7) magnitude of annual VOC emissions, and
- (8) regulatory efficiency and program considerations.

The first factor (uses, benefits, and commercial demand of products) stipulated by section 183(e) is reflected in two criteria developed by the EPA. Criterion 1 (utility) considers uses and benefits and Criterion 2 addresses commercial demand. The remaining four factors stipulated in section 183(e) are addressed individually by Criteria 3 through 6.

Criteria 7 and 8 (magnitude of emissions and regulatory efficiency) reflect additional considerations not specifically prescribed in the Act. The

EPA has exercised its discretion to include these criteria, because the EPA concluded that they are important in prioritizing product categories for regulation in a manner that best effectuates Congress's intent under section 183(e). The EPA's interpretation of each of the five factors and the rationale and intent of each of the eight criteria are discussed in detail in the section 183(e) Report to Congress.

The EPA developed Criteria 1 through 7 to allow each product category to be ranked numerically. The numerical ranking process involved objective and subjective considerations. Criteria 2, 3, 6, and 7 are objective in nature and could be scored quantitatively based on annual sales, VOC emissions, and cost of control. Application of Criteria 1, 3, and 5 included some subjective considerations. Scoring of these criteria could be affected by the scorer's background, knowledge of the category, or other considerations. In order to ensure consistency and fairness, the EPA convened the National Air Pollution Control Techniques Advisory Committee (NAPCTAC) to assist the EPA in application of these criteria. Because of the balance afforded by the diversity of the NAPCTAC membership, the EPA concluded that it was an appropriate and convenient choice. The NAPCTAC met in July 1994 in Durham, North Carolina, to assign preliminary scores for Criteria 1 through 7 to each of the product categories. Results of the preliminary scoring exercise are available in the docket (A-95-40). The EPA used NAPCTAC to provide expert advice on the question of product ranking, but exercised its own independent judgment to assign the final ranking of products for regulation.

Once the initial ranking of products based on exercise of Criteria 1 through 7 was completed, the EPA applied Criterion 8, regulatory efficiency and program considerations, to prioritize the products in the schedule for regulation, and thereby identify which product categories comprised at least 80 percent of VOC emissions in nonattainment areas. As required by section 183(e) of the Act, the EPA grouped the listed categories of consumer and commercial products into four groups for regulation in 2-year intervals. Although the statute does not require that the list be divided into 4 equal groups, the EPA placed product categories into the 4 groups as equally as possible with the goal of achieving VOC emissions reductions as early as possible given available EPA resources. Thus, nearly two-thirds of the cumulative emissions from consumer and commercial products result from

products in the first two groups of categories.

II. Significant Comments on Section 183(e) Study and Report to Congress

The EPA received 85 letters commenting on the section 183(e) Report to Congress and the regulatory list and schedule. These letters were submitted as part of comments on the three rules discussed in this action as well as comment on the Report to Congress. In addition, a total of 12 people testified about the listing of consumer and commercial products at three public hearings for the three rules being published today. The EPA has carefully considered all these comments in publishing today's final listing. The 183-BID, which is referenced in the ADDRESSES section of this preamble, contains full responses to each significant issue raised by commenters. A summary of the more significant comments and the EPA's responses to them are presented here.

Approximately half of the comments received on the section 183(e) list and regulatory schedule were submitted by a consortium of architectural coating manufacturers, including a regional firm and a number of smaller manufacturers. For purposes of clarity and simplicity of language, the following discussion refers to these commenters collectively as "the consortium." These companies dispute the EPA's basis for the architectural coatings rule being promulgated today in a separate **Federal Register** document. By contrast, a national paint and coatings association that represents approximately 225 companies of all sizes strongly supports promulgation of the architectural coatings rule.

Many of the individual comment letters from the consortium addressed several different issues, and many of these issues were raised by all of these parties. In addition, the comments were submitted to the EPA over several years, beginning before proposal of the three rules addressed in this action and extending throughout the respective comment periods and beyond. Over time, the arguments posed were repeated and expanded. Moreover, many of the comments are interrelated in terms of technical issues and policy implications. Therefore, the EPA decided to consolidate and combine the comments from these parties so as to present them and respond to them in an organized manner.

A. Legitimacy of the Environmental Protection Agency's Section 183(e) Study

Some commenters contended that the EPA failed to perform a proper study as mandated by the Act and that the EPA, therefore, lacks authority to propose regulations under section 183(e) of the Act until it conducts a proper study. The primary alleged deficiencies suggested by these commenters are that: (1) the EPA did not perform speciated reactivity studies of all VOC in consumer and commercial products; (2) the EPA failed to demonstrate that consumer and commercial products have the potential to contribute to ozone nonattainment; and (3) the EPA considered VOC emissions magnitude and regulatory efficiency, which was allegedly contrary to Congressional intent. Three other commenters testified that the EPA had fulfilled all necessary requirements of section 183(e) of the Act. These commenters agreed with the EPA's efforts in the section 183(e) study and Report to Congress.

These comments are summarized and addressed in the following sections.

1. Reactivity

The consortium claimed that the EPA failed to conduct a speciated relative reactivity study of all consumer and commercial product VOC and that such a study was mandated by section 183(e)(2)(A) of the Act. The consortium argued that the lack of a relative reactivity study precludes the EPA from determining which, if any, VOC from consumer and commercial products are logical targets for regulation. The consortium also disagreed with the EPA's conclusion that it was impossible to perform reactivity studies on all individual consumer and commercial product ingredients within the time frame allowed by Congress and the EPA's available budget. The consortium contended that the EPA could have developed a more effective regulatory program based on substitution of lower reactivity VOC for higher reactivity VOC if additional reactivity studies had been undertaken.

Another commenter, however, believed that the EPA met the requirements of section 183(e) of the Act regarding the consideration of reactivity, and noted what was included in the section 183(e) Report to Congress with respect to reactivity.

In response to these comments, the EPA believes that it has met all reactivity-related requirements of section 183(e) of the Act, and that relative reactivity was taken into account to the extent that currently

available scientific data and understanding allow. As required in section 183(e), the EPA considered reactivity in prioritizing and selecting product categories to be listed for regulation. The EPA disagrees that a speciated study of all consumer and commercial product VOC should have been performed; such a study is not required by the Act and would have been impractical to undertake. The EPA's analysis of the state of knowledge regarding reactivity and use of available reactivity data allowed the EPA to fulfill the requirements of the Act and to complete the mandated study and Report to Congress. Finally, currently available speciated reactivity data are not adequate to support the suggested regulations based on substitution of lower reactivity VOC for higher reactivity VOC. An analysis of whether such a system would result in more efficient regulation would need to consider all costs associated with implementing a speciated regulatory system (e.g., monitoring and recordkeeping). Also, it would be necessary to consider the ability of compounds to form ozone over a several-day period under different sets of environmental conditions in designing such an approach and considering its efficiency.

Consideration of reactivity in prioritizing product categories for possible regulation. Section 183(e)(2)(B)(iii) of the Act requires the EPA to consider five factors in establishing criteria for selecting product categories to be regulated. One factor is "those consumer and commercial products which emit highly reactive volatile organic compounds (VOC) into the ambient air." Accordingly, the EPA established "Emissions of Highly Reactive Compounds" as one of the criteria used to rank consumer and commercial products for possible regulation.

In its consumer and commercial products study, the EPA distinguished between three groups of compounds: highly reactive, reactive, and negligibly reactive. Negligibly reactive compounds, a category established by the EPA regulations, are certain listed compounds the EPA has formally determined to have insignificant ozone-forming potential and excluded from the definition of VOC. Compounds that were identified as negligibly reactive were excluded from the consumer and commercial product VOC emissions inventory, and will be excluded from any related regulation.

To identify highly reactive VOC, the EPA used available information to identify 10 classes of volatile organic

compounds—some of which represent very broad groups—as “highly reactive” under most conditions. In the study the EPA thus differentiated among classes of VOCs that were known to be reactive and those that were known to be highly reactive, using the most current, generally accepted reactivity scales. The EPA then identified those product categories known to contain quantities of these highly reactive compounds, and estimated the quantity of highly reactive compounds emitted by these product categories.

The EPA also took into consideration highly reactive VOC under another criterion, “Magnitude of Annual VOC Emissions.” For product categories known to contain highly reactive VOC, the EPA adjusted the mass emissions figures for those VOC to reflect their high reactivity.

The EPA subsequently ranked product categories for possible regulation, considering the criteria established by the EPA and advice from the independent NAPCTAC advisory group. In conducting the ranking, the EPA gave product categories containing highly reactive compounds a higher priority for regulation. In addressing the two criteria cited above, the EPA assigned a range of scores based on the number of tons of highly reactive VOCs emitted per year by a product category. The EPA included the scores from these criteria in the calculation of the total scores for each product category in considering the regulatory priority of each category.

Chapter 3 of the March 1995 Report to Congress provides a more detailed discussion of reactivity and the rationale for the list of highly reactive compounds on which the EPA relied. Chapter 4 of the Report to Congress discusses in more detail how the EPA applied each of the criteria.

Adjustment for reactivity in listing product categories. Section 183(e)(3)(A) of the Act requires the EPA to “list those categories of consumer or commercial products that the Administrator determines, based on the study, account for at least 80 percent of the VOC emissions, on a reactivity-adjusted basis, from consumer or commercial products in areas that violate the NAAQS for ozone.” The EPA fulfilled the reactivity adjustment requirement in the following manner. As previously noted, the EPA grouped all VOC into three divisions—highly reactive, reactive, and negligibly reactive. The EPA identified those product categories known to contain highly reactive compounds and estimated the mass quantity of these compounds found in each category. The EPA adjusted

emissions data for these product categories by applying a reactivity adjustment factor to the mass emissions of highly reactive ingredients. Compounds that were identified as negligibly reactive, which are not within the definition of VOC, were excluded from the emission inventory. After ranking the product categories based on the eight regulatory criteria, the EPA developed the list of categories for regulation starting with the highest ranked categories and proceeding through successive categories until 80 percent of the total emissions—including the aforementioned adjustments for reactivity—was accounted for. In this way, the EPA, fulfilled the reactivity adjustment requirement of section 183(e)(3)(A) of the Act.

Additional study was not required. The statutory requirements regarding reactivity are clearly stated in the Act. They are:

1. To consider consumer and commercial products that emit highly reactive VOC, and
2. To list those products that account for at least 80 percent of VOC emissions from consumer and commercial products in non-attainment areas, on a reactivity-adjusted basis.

The EPA believes that the Act does not require the speciated reactivity study suggested by the commenters. Nor does the Act include any requirements for the EPA to fill gaps in scientific understanding before proceeding with prioritizing and listing categories for regulation. The Act’s language regarding a study requires the EPA to address “emissions of volatile organic compounds into the ambient air from consumer and commercial products* * *” The EPA considered reactivity a significant issue in this study and assessed all reasonably available reliable data on reactivity of individual VOC species. The EPA does not believe that it was required to delay its listing decisions until it could conduct extensive research to quantify the reactivity of each VOC species.

To meet these requirements, the EPA ascertained which consumer and commercial products have the potential to contribute to ozone nonattainment and took reactivity into consideration to the extent that reasonably available information allows. As described in the preceding section, the EPA’s study of relative reactivity included assessment of currently available data and ozone formation models. Furthermore, since the study and Report to Congress were, in essence, a screening exercise to identify the EPA’s priorities for regulating categories of consumer and

commercial products, the EPA judged that the consideration of relative reactivity should be limited to currently available data and should not involve exhaustive testing of relative reactivity of all consumer and commercial products. The EPA does not believe that Congress could have intended to delay regulation of VOC emissions from consumer and commercial products indefinitely, pending development of complete information regarding reactivity for all individual species of VOC. As more complete information on the relative reactivity of consumer and commercial product VOC is developed over time, the EPA can incorporate it into the regulatory program. For example, if data become available to prove that a currently regulated VOC is negligibly reactive, the EPA will exempt that compound from the regulatory definition of VOC.

Impracticality of additional study. Some consortium members claim that the EPA should have attempted in the section 183(e) study to conduct a quantitative analysis of the relative reactivity of each of the thousands of VOC species in consumer and commercial products. Such a detailed, costly, and time-consuming analysis is not needed to justify listing of product categories for regulation and is not required by the statute. The effect of such a requirement would be to postpone for years promulgation of pollution control requirements needed to help the Nation achieve clean air. This would be inconsistent with Congress’s direction that the EPA complete the study within three years and expeditiously issue regulations for consumer and commercial products within deadlines set in the statute.

Even if the EPA could have determined reactivity values for the extremely large number of compounds in consumer and commercial products, the results would be of limited utility. Available computer models generally aggregate chemical compounds or consider them as general categories. As a result, models have limited use for evaluating the effects of reducing emissions of specific VOC species from a particular product category.

2. Role of Consumer and Commercial Products in Contributing to Ozone Nonattainment

The consortium also argued that the EPA’s section 183(e) study failed to determine the potential of VOC emissions from consumer and commercial products to contribute to ozone levels that violate the ozone NAAQS. Their argument included points that the EPA should have

determined the reactivity of each species of VOC and should have done a detailed study of the role of other factors, including the role of NO_x and biogenic emissions in ozone formation. In addition, the consortium asserted that the EPA should have determined which products and control strategies have the greatest ozone reduction potential in each individual nonattainment area and related the estimated cost of any proposed regulations to the amount of ozone reduced. As a result of these exercises, the consortium claimed the EPA would have listed for regulation only those products that have the greatest effect on ozone reduction for the least cost.

The EPA disagrees with the consortium that these studies are needed for proper implementation of the section 183(e) program, and disagrees that section 183(e) of the Act directs the EPA to undertake such a detailed level of analysis. The statutory mandate is to study the "emissions of VOC from consumer and commercial products * * * in order to determine their potential to contribute to ozone levels which violate the NAAQS for ozone."

The EPA has concluded that VOC emissions from consumer and commercial products have the potential to contribute to ozone nonattainment, based on the section 183(e) study and a large body of scientific knowledge on photochemical reactivity and the role of VOC in ozone formation.

The EPA is not alone in its assessment. A 1989 report by the Congressional Office of Technology Assessment, "Catching Our Breath: Next Steps for Reducing Urban Ozone," identified VOC emissions from solvents in paints and coatings, and from other types of products, as a significant contributor to the ozone pollution problem that had largely escaped regulation at the federal level. Several States have moved on their own to limit VOC emissions from paints and coatings because they contribute to ozone pollution. The National Governors' Association and Environmental Council of States, and the associations representing State and local air program administrators, have called upon the EPA to expedite adoption of national rules for architectural coatings and other consumer and commercial products. Further, in June 1997, the 37-State Ozone Transport Assessment Group (OTAG) recommended that the EPA proceed with finalizing the proposed national rules for architectural coatings, consumer products, and automobile refinish coatings, and even develop

more stringent future requirements for these categories.

The following considerations and scientific studies are among those supporting the EPA's position that the VOC in consumer and commercial products have the potential to contribute to the ozone pollution problem:

(i) Ozone pollution is caused by the reaction of VOC and NO_x. All VOC species have the potential to form ozone (i.e., are reactive) to some degree. Since the late 1940s, the scientific community has recognized this basic tenet of atmospheric chemistry. For example, the 1996 EPA document entitled "Air Quality Criteria for Ozone and Related Photochemical Oxidants" and its 1970 and 1977 predecessors include discussions of the atmospheric chemistry leading to formation of ozone and the important role of VOC in that formation. These documents have been extensively reviewed by independent scientific experts on the Clean Air Scientific Advisory Committee.

(ii) The EPA's consumer and commercial products study includes a broad inventory of VOC emissions from consumer and commercial products. The study showed that emissions from consumer and commercial products in 1990 were large— an estimated 28 percent (6 million tons per year) of total manmade VOC emissions nationwide. In ozone nonattainment areas, these emissions in 1990 totaled 3.3 million tons per year (tpy). These totals consist of contributions from a large number of individual pollution sources that are relatively small.

Architectural coatings—the category of principal interest to consortium members—are one of the largest identifiable unregulated sources of VOC in many States' emissions inventories, and one of the largest sources of VOC emissions among categories of consumer and commercial products. The EPA's section 183(e) study estimated nonattainment area emissions from this category at 315,000 tpy in 1990.

(iii) Both the amount of VOC emitted, and the reactivity of the VOC (which is dependent on ambient conditions that vary at different times and places), affect the amount of ozone formed. It is important to note that low-reactivity VOC can still be significant ozone producers if they occur at high concentrations and under favorable conditions. This is documented, for example, in a 1991 article by R.G. Derwent and M.E. Jenkin, "Hydrocarbons and the Long Range Transport of Ozone and PAN Across Europe," in *Atmospheric Environment* (25A, p.1661) and in the most recent

"National Air Quality and Emissions Trends Report, 1996," (EPA-454/R-97-013).

This point concerning low-reactivity VOC also is supported by empirical data from this country. The most recent "National Air Quality and Emissions Trends Report, 1996," (EPA-454/R-97-013), suggests that reducing low-reactivity VOC emissions from gasoline was effective in reducing national ozone levels. The report shows that national VOC emissions decreased 9 percent from 1987 to 1991, while national composite ozone levels decreased approximately 8 percent. A closer look at the VOC reductions over this period shows that they are primarily due to reductions in the transportation category, and this is due in large part to reductions in the vapor pressure of gasoline (Reid vapor pressure, or RVP) which were implemented nationally in 1989 and 1990. These RVP reductions are primarily achieved by reducing the content of short-chain hydrocarbons in gasoline. While these compounds are generally considered of lesser importance in the formation of ozone than their more highly-reactive hydrocarbon counterparts, their reduction seems to have been very effective in the reduction of ozone levels nationally between 1987 and 1991. This is an example of how the control of certain VOC emissions which are considered less reactive than other VOC emissions in isolation can, nonetheless, be effective in significantly reducing levels of ozone pollution. In any case, it has long been apparent that these "less reactive" VOC emissions (such as those which can be found in many paint solvent formulations) cannot be ignored when considering the need to control VOC to reduce ozone pollution.

(iv) It has been well documented that both VOC and NO_x control are needed to combat the national ozone problem. This point is further discussed elsewhere in this preamble.

The EPA is continuing to support research on atmospheric chemistry, including photochemical reactivity, to further improve models for predicting ozone formation. In the meantime, the EPA believes that there is ample scientific evidence that VOC emissions from consumer and commercial products have the potential to contribute to ozone nonattainment.

In the consumer and commercial products study, the EPA studied two indicators of a product category's relative potential to form ozone. These indicators, which the EPA identified as two of the criteria to be used in listing product categories for regulation, were (1) the quantity of VOC emissions

(adjusted for highly reactive emissions), and (2) the quantity of highly reactive emissions. In the study, the EPA determined the quantity of VOC emissions from each product category and created a comprehensive VOC emissions inventory for consumer and commercial products. In addition, using available data, the EPA identified classes of highly reactive VOC and determined the quantities of those compounds emitted by each product category.

The EPA subsequently considered both of these criteria in prioritizing and listing product categories for regulation. As detailed elsewhere in this preamble, product categories that had greater emissions of VOCs, or greater emissions of highly reactive VOCs, received higher priority scores on those two criteria and, therefore, were more likely to be listed for regulation.

In other words, the EPA studied indicators of product categories' relative potential to form ozone in conducting the consumer and commercial products study, and considered those indicators in prioritizing and listing product categories for regulation.

Some consortium members claim that the EPA should have attempted in the section 183(e) study to conduct a quantitative analysis of the amount of ozone formed by each of the thousands of VOC species in consumer and commercial products, for each product, in each airshed or nonattainment area—and do so for a range of control strategies. The Act does not require the EPA to establish quantitatively the contribution of each product to ozone nonattainment prior to listing. As previously noted, such a detailed, costly, and time-consuming analysis is not needed to justify the listing of product categories for regulation. The effect of such a requirement would be to postpone for years promulgation of pollution control requirements needed to help the Nation achieve clean air. This would be inconsistent with Congress's direction that the EPA complete the study within 3 years and expeditiously issue regulations for consumer and commercial products within deadlines set in the statute.

In this context, it is relevant to note that the types of VOC in consumer and commercial products are not unique—these same VOC are among the pollutants emitted by major industrial facilities. Consumer and commercial products are made from VOC-containing chemical feed stocks made at chemical manufacturing plants and refineries, for which VOC emission control regulations are comprehensive and stringent.

Other reasons that the extremely detailed analysis suggested was not feasible or appropriate involve data limitations and scientific complexities and uncertainties. Such an analysis would require, for example, substantial additional data on the types and quantities of individual VOC in each product within the broad universe of consumer and commercial products. To obtain this information would have placed an additional burden upon industries that the EPA believes was not necessary for the listing process. Also, studies to quantify the reactivity of a large number of individual VOC species would have been required for this analysis. In addition, many complexities make it difficult to make reliable predictions of the ozone-forming potential of individual VOC species. One reason is that this potential varies depending on ambient conditions—on an absolute scale, and occasionally on a relative scale as well. These conditions affecting reactivity include ambient conditions such as VOC-to-NO_x ratios, the presence of other VOC, and sunlight intensity. Each of these factors can vary widely. Also, in multiple day pollution episodes in an area, a VOC species that has low reactivity (based on a one-day reactivity scale) may continue to form ozone over several days. Even if the EPA could have obtained the needed data and accounted for these complications, the results would have been of limited utility. As mentioned previously, available computer models generally aggregate chemical compounds or consider them as general categories. As a result, models have limited use for evaluating the effects of reducing emissions of specific VOC species from a particular product category.

Finally, the EPA believes that an intensive study to quantify each product's effect on ozone levels in nonattainment areas is inconsistent with Congress' intent in enacting the section 183(e) program. Congress recognized that small quantities of VOC emissions from a very large number of products add up—and together make up a significant portion of ozone-forming VOC emissions. Congress created the 183(e) program to reduce the VOC emissions from consumer and commercial products as a group. Under section 183(e), it is not necessary to quantify the effect of each species of VOC, or each product, on ozone levels in each nonattainment area to make a reasoned selection of product categories to list for regulation.

The EPA has procedures available for considering evidence that a particular compound is not reactive enough to warrant regulation as an ozone

precursor under the Act. Existing EPA regulations allow persons or companies to apply to have a compound excluded from the definition of VOC—in effect, exempted from regulation—based on evidence that it is negligibly reactive. (See 40 CFR 51.100(s).) Working with industry, the EPA has exempted 42 compounds and two classes of compounds under this provision; 21 exemptions have been granted since 1990.

In summary, the EPA believes that the potential for the listed categories of products to contribute to ozone nonattainment has been established in accordance with the requirements of section 183(e).

3. Consideration of "Emission Magnitude" and "Regulatory Efficiency"

The consortium contended that the EPA lacked authority to use the "emission magnitude" and the "regulatory efficiency and program considerations" criteria because they do not directly reflect any of the five factors listed in section 183(e)(2)(B) of the Act. For this reason the consortium concluded that any EPA action relying on these criteria is illegal and invalid.

Although the Act requires that the EPA consider the five factors enumerated in section 183(e)(2)(B) of the Act in establishing criteria for regulating products, the statute does not require that the EPA establish criteria that precisely mirror the five factors, nor does it require that the EPA consider the list of factors to be exclusive. The EPA fulfilled its duty to establish criteria and to consider each of the five listed factors in developing the criteria. In addition, the EPA exercised its discretion by establishing two criteria that did not specifically mirror the five listed factors. The EPA believes these two criteria are important for the purposes of establishing priorities for regulation as instructed by Congress.

The EPA established Criterion 7, Magnitude of Annual VOC Emissions, to give greater regulatory priority to products that emit relatively large amounts of VOC. Magnitude of annual VOC emissions is a reasonable criterion for determining which product categories to regulate. It is logical to take into consideration how much VOC product categories emit relative to other products because the greater the emissions from a category, the greater the potential to achieve significant emission reductions and the corresponding reduction in ozone concentrations in areas violating the ozone standard.

The EPA established Criterion 8, Regulatory Efficiency and Program Considerations, to assure that the EPA continues to use resources in the most effective manner to meet the mandates of section 183(e) of the Act. It is reasonable for the EPA to consider whether a given product category has already been the subject of State, local, or Federal regulations. Such categories would have been well-characterized, alternatives of control would have been explored, and costs and economic impacts would have been investigated. The EPA believes it is also reasonable to consider the existence of this information because the EPA must regulate the first group of products in a relatively short time. The EPA carries out all of its activities mandated by the Act within budgetary and time constraints. It is the EPA's policy to focus regulatory activities so as to optimize the use of time and resources. Section 183(e)(2)(B) does not prohibit the EPA from considering this factor.

B. Consumer and Commercial Product Inventory

The consortium expressed the opinion that consumer and commercial products are not a significant VOC source. According to the consortium, many consumer and commercial products, such as architectural coatings, would not be listed for regulation had the EPA performed the inventory correctly, because such products may not be in the top 80 percent of consumer and commercial product emissions on a reactivity-adjusted basis. The consortium listed two alleged deficiencies with the consumer and commercial product inventory. First, the EPA's overall inventory did not include biogenic VOC. Second, the EPA excluded certain man-controlled biogenic VOC sources, such as plant nurseries and orchards, from the list of consumer and commercial products to be regulated.

1. Role of Biogenic Emissions

The consortium stated that a major deficiency existed in the consumer and commercial product inventory because the EPA failed to provide Congress with information about the insignificance of VOC from consumer and commercial products relative to the larger amount of biogenic VOC in the atmosphere. According to the consortium, the EPA's failure to list the specific sources of all VOC, including those from the global background, biogenic, and anthropogenic sources, along with the role that each source played in ozone formation, resulted in Congress being uninformed of the supposed

insignificance of anthropogenic emissions compared to biogenic emissions.

The EPA believes that the inclusion of biogenic emissions in the inventory of national VOC emission sources is one possible approach, but does not believe that such inclusion changes the proper analysis for controlling VOC from consumer and commercial products. The EPA estimated biogenic emissions in 1990 to be about 34 million tpy. Considering the 21 million tons of anthropogenic emissions, total VOC emissions nationwide are greater than 56 million tpy. For the purpose of determining relative contribution of consumer and commercial products, the EPA revised the inventory of all VOC sources to include biogenic emissions and included the revised table in the section 183(e) comment response document. These biogenic emissions are not amenable to control, because they emanate from sources for which there is no practical control option (i.e., forests, swamps, grasslands, etc.); therefore, the proportion of controllable VOC has remained unchanged. Of the 21 million tons of anthropogenic VOC emissions emitted nationwide in 1990, consumer and commercial products account for 6 million tons, or about 28 percent. Therefore, consumer and commercial products are still among the most significant Federally unregulated VOC sources for which additional VOC reductions are achievable.

Consumer and commercial product VOC contribute to ozone formation regardless of the precise amount of biogenic VOC in the inventory. In some regions of the country, biogenic VOC contribute significantly to ozone nonattainment. In other areas, biogenic VOC are emitted in the presence of limited amounts of NO_x, resulting in a limited amount of ozone formation. Moreover, under the right conditions, biogenic VOC tends to scavenge ozone from polluted air as well as form new ozone. Anthropogenic VOC, on the other hand, are usually emitted in the presence of NO_x, resulting in rapid ozone formation and are generally unreactive with ozone under most conditions. For these reasons, anthropogenic VOC contribute to ozone nonattainment in urban areas and other locations, regardless of any concomitant contribution by biogenic sources. Thus, VOC emissions from anthropogenic sources will play a proportionately greater role in ozone formation than is indicated by their percentage contribution to total national emissions. The EPA concluded that the existence of biogenic VOC does not negate the fact that VOC from consumer and

commercial products have the potential to contribute to ozone nonattainment as contemplated by section 183(e) of the Act.

2. Listing of Biogenic Products

The consortium argued that a second deficiency in the consumer and commercial product inventory and list for regulation was that the EPA excluded man-controlled biogenic sources (i.e., flowers, trees, food, etc.). The consortium argued that this exclusion is contrary to the Act, which required the EPA to conduct a complete inventory of all sources of VOC emissions from consumer and commercial products. The consortium stated that these biogenic sources, if included in the study, would have been a more significant source of VOC contribution to ozone than some of the consumer and commercial products that the EPA listed for regulation.

The EPA disagrees that biogenic products should be listed as categories of consumer and commercial products. It is reasonable to list only those products from which emission reductions are possible. In general, the EPA has interpreted the statutory definition of consumer and commercial products very broadly, and considers products ranging from hair sprays to automotive coatings to asphalt paving materials to fall within the definition of consumer and commercial products. These "products" differ greatly from man-controlled biogenic sources of VOC.

In each of the categories identified by the EPA to be consumer and commercial products for regulation, the products share at least one characteristic that sets them apart from biogenic sources. In every case, the "products" are formulated and manufactured using combinations of ingredients. The manufacturers have control over the VOC contents of these products, and, therefore, can reformulate or modify the products to emit less VOC. Plants, trees, and shrubs are not manufactured and, therefore, have inherent VOC emission characteristics, both in volume and speciation of emissions. These naturally occurring sources cannot be reformulated or modified to reduce VOC emissions. Options to control VOC emissions from plants, trees, and shrubs would be limited primarily to banning sale or distribution of such products which the EPA believes would not reflect Congress's intent in enacting Section 183(e).

The VOC emissions from biogenic sources could not be mitigated through regulation; therefore, it is highly unlikely that these sources would ever

be listed for regulation. Consequently, the EPA's decision not to identify these sources as consumer and commercial products under section 183(e) of the Act has not affected the selection of nor the priorities for those categories the EPA did list for regulation.

C. The Environmental Protection Agency's Regulatory Strategy

1. *Nitrogen oxides versus volatile organic compounds emissions control strategies.* As part of their comments opposing the EPA's approach to the section 183(e) study and Report to Congress, the consortium submitted a series of letters presenting a number of different arguments that the EPA is using the wrong regulatory policy for attainment of the ozone NAAQS. The common theme in these arguments was that the consortium believed that the EPA should control NO_x instead of VOC because, in their opinion, controlling NO_x is the most scientifically valid and the most effective strategy for achieving long term ground-level ozone attainment. The consortium's specific arguments are summarized and addressed in sections II.C.1.(b) through (f) of this document. An overview of the EPA's response to this group of arguments is presented below before discussion of the specific arguments.

The EPA believes that the present policy, which focuses on control of both NO_x and VOC, reflects the latest knowledge on factors affecting ozone formation and the technical feasibility of controls. The present policy, which relies on a combination of national, regional, and local control strategies, has been effective in improving ozone attainment and will achieve further improvements in ozone air quality. The consortium is correct in that scientific studies since the Clean Air Act Amendments of 1990 have more clearly recognized the role of NO_x and biogenic emissions in ozone nonattainment. The findings of these studies have been factored into the national ozone control policy. The EPA's policy has continuously evolved since the 1970's to recognize improved scientific understanding of this complex issue and will continue to evolve as the science advances. The EPA continues to believe that regulation of both NO_x and VOC is appropriate and that regulation of VOC through section 183(e) of the Act will contribute to reduced ozone levels. The consortium's position that the ozone NAAQS can be achieved at all locations by NO_x control alone is based, in part, on a misunderstanding of the ozone formation mechanism in urban air.

a. *Background: The current ozone control policy.* Unlike other criteria

pollutants, ozone is not directly emitted into the air. Ozone forms in the air when NO_x and VOC react in a complex set of reactions in the presence of sunlight and heat. The ozone reactions are initiated by the breakdown of nitrogen dioxide by sunlight and subsequent reaction with oxygen. In the absence of VOC, an equilibrium exists between NO_x and ozone, by which ozone is consumed in the series of photochemical reactions soon after formation. This equilibrium prevents the buildup of high concentrations of ozone in the air. Introduction of VOC disrupts this equilibrium (i.e., disrupts the reactions that scavenge ozone), thus resulting in accumulation of high concentrations of ozone.

The EPA's ozone reduction policy is to control both NO_x and VOC emissions. The EPA's policy is consistent with recent scientific studies and with explicit statutory directives to reduce both VOC and NO_x. Ozone control is a complex problem that must address a number of factors, including meteorological conditions, the relative concentrations of NO_x and VOC in the air, and the proximity of emission sources to one another. The EPA's policy recognizes that NO_x control is an effective means for reducing ozone. The EPA's policy also recognizes that VOC control, with or without NO_x control, is essential or beneficial in many areas for reducing peak ozone concentrations. The EPA believes that its ozone reduction policy is a scientifically valid strategy and that the consortium has mischaracterized the EPA's ozone policy and the past results of the policy.

Several of the comment letters implied that national standards for VOC are the only component of the EPA's policy. This implication is incorrect. The section 183(e) regulations are just one part of a reasoned ozone control plan consisting of national, regional, and local controls. First and foremost, ozone attainment is a State responsibility. States are responsible for designing control strategies for each nonattainment area in their jurisdiction. The strategies must consider local conditions, including contribution of biogenic VOC emissions, in determining an appropriate mix of NO_x and VOC controls and the level of control needed. States have developed emission regulations to achieve emission reductions necessary to demonstrate attainment through modeling studies. Multi-State planning zones in several regions of the country are being established to develop coordinated strategies to address interstate transportation of pollution. The Act also requires that State plans contain

provisions that prevent sources from contributing significantly to nonattainment or maintenance of attainment in other States.

The State and Regional plans are supplemented by Federal measures to reduce emissions for certain source categories. Federal programs may address source categories that are more efficient to regulate nationally than on a State-by-State basis. States rely on these reductions from the Federal measures in conducting their atmospheric modeling for control strategy development and attainment demonstrations. Examples of Federal VOC control measures include mobile source controls under title II of the Act, new source performance standards (NSPS), the marine vessel loading rule, and the consumer and commercial product regulations under section 183(e) of the Act. Federal NO_x controls include regulations for mobile sources, NSPS, and acid rain controls on utility boilers. Section 183(e) standards, therefore, are but one element of a coordinated Federal and State program for ozone control.

Recent regional ozone modeling studies over the 37-State region of the eastern United States have shown that additional emission reductions of both NO_x and VOC will be needed beyond the currently applicable State and Federal controls. The study was conducted by the Ozone Transport Assessment Group (OTAG), which included representatives of the 37 easternmost States, the EPA, and the public—in total, more than 700 public and private sector stakeholders. The OTAG States recommended in July 1997 that the EPA continue to adopt and implement stringent national control measures for a number of VOC emission sources, including consumer and commercial products.

b. *Effectiveness of a national volatile organic compound control strategy.* The consortium claimed that VOC control is ineffective and should be abandoned because the policy of controlling VOC has not achieved ozone attainment in all areas of the country. The consortium further maintained that, in some cases, VOC controls are counterproductive and will increase ozone formation.

The EPA disagrees with the conclusion that VOC control is ineffective. Past control strategies have improved air quality. Ozone trends data show that reductions in peak ozone concentrations are occurring across the country. Monitoring data from more than 700 sites show that composite averages of the second highest maximum 1-hour ozone concentrations have shown a clear, steady, downward

trend over the past 10 years. These downward trends apply also to the number of daily exceedances of the standard. Since historically the control policies placed greater reliance on VOC control, the trend of ozone reductions confirms that VOC control has been effective in many areas of the country.

Failure to obtain universal attainment is due to a number of factors. Some of these factors include the underestimation of VOC inventories and the inadequate consideration of the role of biogenics and the transport of ozone and NO_x. Even with these limitations, many areas of the country have achieved attainment or have improved ozone air quality measurably. With recent enhancements to the policy to better address the local impacts of biogenics and pollutant transport, future control strategies should continue to improve this trend.

The EPA also disagrees that VOC controls are counterproductive. The consortium's position is based on the fact that some species of VOC can reduce ozone under some conditions. Controlling these compounds, therefore, could conceivably increase ozone in certain circumstances. While the EPA acknowledges that some species of VOC can scavenge ozone, this phenomenon occurs in very limited circumstances (i.e., in relatively clean air, with highly reactive VOC under specific meteorological conditions, and in the presence of very low NO_x). This phenomenon is not widespread and certainly does not form the basis for a national ozone control policy. For a more detailed response to this comment, see section 2.2.2 of the 183-BID.

c. *Recent scientific studies.* The consortium charged that the EPA has failed to consider recent scientific studies published since the Clean Air Act Amendments of 1990, and has followed historic control policies which have failed. The consortium claimed that "Rethinking the Ozone Problem," "The Southern Oxidants Study," and other studies addressing the role of NO_x and biogenic VOC emissions prove that the current ozone reduction policy cannot work. They pointed to elements of these studies as support for their position that NO_x controls are a better means to achieve ozone attainment than VOC controls.

The EPA believes that the current ozone strategy of controlling both VOC and NO_x is scientifically valid and is consistent with recent scientific advances. Ozone control is a complex problem. Over the past 20 years, scientific understanding of ozone formation mechanisms has continued to evolve and the EPA's ozone strategy has

evolved accordingly. While the EPA agrees with some of the specific factual information cited by the consortium from the cited studies, the EPA disagrees with the consortium's conclusions that the proper response is to abandon VOC control altogether in favor of a NO_x-only control policy. The cited studies show the complexity of the problem, the importance of NO_x control in certain circumstances, and the importance of regional control strategies to reduce transport problems. But they do not suggest that VOC emission sources should not be controlled. These studies do not change the conclusion that VOC control helps reduce ozone in many circumstances.

Current scientific information shows that VOC reductions will reduce ozone in urban areas and in other areas where there is available NO_x present. The relative effectiveness of VOC and NO_x controls will vary from area to area, depending significantly upon VOC/NO_x ratios in the atmosphere. VOC reductions will help to reduce ozone in all urban areas because VOC/NO_x ratios vary at different times and places within an urban area. Modeling analyses indicate that a combination of VOC and NO_x controls is the most effective way to reduce ozone levels in many urban areas. Ozone reductions due to VOC control can also reduce ozone pollution in downwind areas affected by ozone transport.

The EPA agrees with the consortium on several points: (1) that the past control strategies have not produced the level of ozone reductions that were expected; (2) that science has only recently (in the last 10 years) recognized the significance of the contribution of biogenic VOC sources and transport of ozone and NO_x; and (3) that these studies provide a basis for fine-tuning certain aspects of the current policy. The EPA disagrees, however, that the proper action is to abandon VOC control altogether. The course that the EPA is following is to use improved scientific understanding from these studies to formulate an improved ozone policy. Recent EPA initiatives to improve ozone control strategy development include:

(1) Improvement of ozone air quality models.

(2) Collection of more and better air quality data upon which to base strategies (including simultaneous monitoring of ozone, NO_x, and speciated VOC concentrations).

(3) Improvement of VOC and NO_x emission inventories (including biogenic emissions).

(4) Regional application of ozone air quality models to account for long-range pollutant transport.

(5) Development of regional ozone control strategies for NO_x. (For example, a proposed rulemaking at 62 FR 60317 will require States to submit State Implementation Plan measures to mitigate transport of ozone and emissions of NO_x across State borders in the eastern half of the country.)

These improvements respond to the consensus of current scientific understanding of ozone formation and control. The EPA expects that its ozone control strategy will continue to evolve as scientific understanding of ozone formation and control improves.

d. *Contribution of biogenic volatile organic compounds sources versus anthropogenic sources to ozone nonattainment.* The consortium stated that anthropogenic VOC sources (like consumer and commercial products) are so insignificant compared to biogenic sources that controlling anthropogenic VOC will have no ozone reduction benefit. The consortium claimed that since biogenic sources might contribute as much as 90 percent of total VOC emissions on typical summer days, the only way to achieve the ozone standard is to control NO_x. The consortium pointed to the conclusions of the "Southern Oxidants Study" that showed that high biogenic emissions in the rural South can lead to exceedances of the ozone standard.

While the EPA agrees that biogenic emissions are indeed a major fraction of total VOC emissions, the contribution of biogenic sources to total VOC emissions on typical summer days will vary depending on local weather conditions and geography. Thus, although biogenic sources could contribute as much as 90 percent of total VOC emissions on some summer days, this is only true in some locations and is not universally true for all climatic conditions or geographical features.

In addition, the EPA disagrees that it is ineffectual or inappropriate to control anthropogenic sources of VOC. Under the proper conditions, ozone formation occurs rapidly and is affected (among other things) by the proximity of VOC and NO_x sources. Biogenic VOC generally are less important than anthropogenic VOC because biogenic VOC are emitted predominantly in rural atmospheres with limited amounts of NO_x, resulting in a limited amount of ozone formation. Moreover, as noted by the consortium, the biogenic VOC, under the right circumstances, tend to scavenge ozone from the atmosphere. Anthropogenic VOC, on the other hand, are usually emitted in the presence of NO_x, resulting in more ozone formation. Thus, the EPA concludes that anthropogenic VOC generally play a

proportionately greater role in ozone formation than does biogenic VOC.

The consortium may also be correct that, in some cases, biogenic VOC can be the predominant precursor in the reactions with NO_x. For example, in Atlanta, studies have predicted that the complete elimination of man-made VOC would still leave the area in nonattainment. For this reason, control strategies for areas like Atlanta, which have very high ratios of VOC/NO_x in the air, will focus on NO_x reductions. Even in such areas, however, the control of VOC will help reduce ozone formation.

Modeling in Atlanta has shown that VOC controls can help reduce ozone even in NO_x-limited areas. Because ozone formation is greatly affected by meteorological conditions and source/receptor orientation, ozone formation may be limited by either VOC or NO_x concentrations at different times and locations within the area. Moreover, modeling results suggest that unless NO_x controls can be implemented all at once, detrimental effects can occur from piecemeal implementation under some circumstances. Results show that VOC controls could mitigate some undesirable effects in the interim. Thus, even though NO_x control may be an effective means of reducing ozone levels on many of the worst days in many locations, reduction of VOC emissions is still necessary to reduce peak ozone concentrations under the variety of meteorological and source receptor conditions in urban areas. As previously noted, modeling analyses indicate that a combination of VOC and NO_x controls is the most effective way to reduce ozone levels in many urban areas.

e. The role of long-range transport of nitrogen oxides in ozone nonattainment. The consortium stated that a VOC control strategy will not work because the transport of NO_x will cause downwind exceedances of the ozone standard. The consortium maintained that downwind reactions with biogenic VOC would be sufficient to cause violations and, therefore, control of anthropogenic VOC would be ineffective.

The EPA agrees that the transport of ozone can contribute to ozone nonattainment. The EPA also agrees that additional NO_x emissions reductions are essential to reduce long range transport problems. Ozone transport has been most problematic and most studied in the eastern States, and plans have been proposed for a regional NO_x emission reduction strategy. However, the control of transported ozone and NO_x will not solve the ozone problem universally. Control of VOC beyond current State and Federal VOC control

measures will be necessary to achieve attainment in many areas—particularly those with longstanding and serious problems with nonattainment.

Ozone nonattainment can be a function of two components: locally formed ozone and transported ozone. Historically, most control strategies have focused on controlling locally formed ozone by controlling local NO_x and VOC sources in the immediate vicinity of nonattainment. The Clean Air Act Amendments of 1990 recognized that certain downwind areas receive transported ozone and ozone precursors that can contribute to nonattainment. Many of these areas may be close to violating the standard due to local emissions even after applying all reasonably available controls, and the additional contribution of transported ozone can lead to periods of nonattainment.

More recently, exhaustive modeling studies of the eastern States by OTAG and others have explored the transport phenomenon. These studies have concluded that control measures mandated by the Act for ozone nonattainment areas will provide ozone reductions in many nonattainment areas. However, some areas will remain in nonattainment, and new nonattainment may arise due to economic growth. The studies predict that regional NO_x reductions will decrease ozone concentrations across broad regions and will be more effective in reducing long-range ozone transport than will VOC reductions.

The EPA has recognized the role of NO_x in the ozone transport problem. On November 7, 1997 (62 FR 60317), the EPA issued a proposed rulemaking requiring certain eastern States to adopt NO_x emission reduction measures as needed to mitigate the transport of ozone and NO_x across State boundaries. Considering the State-by-State emission budgets, an overall NO_x emission reduction of 35 percent is targeted for the 23-State region.

The modeling conclusions about the importance of ozone transport does not mean that VOC reductions are not also needed. The OTAG study concluded that attaining the standard will require local VOC and/or NO_x controls in addition to the recommended regional NO_x controls. The OTAG modeling suggested that reduction of VOC emissions will be most effective in and near urban core areas and will be necessary to control the component of locally produced ozone that contributes to nonattainment. The OTAG States recommended national rules for architectural coatings, consumer products, and automobile refinishing

coatings to help achieve needed VOC reductions.

In conclusion, the consortium is incorrect that the control of anthropogenic VOC emissions is unnecessary to attain the ozone standard. The VOC emitted in close proximity to NO_x will generally react to form ozone. Depending on the relevant conditions, this ozone may contribute to nonattainment. To achieve and maintain the standard will require a program to address effectively both local and transported ozone. Control of anthropogenic VOC, therefore, will continue to be a vital part of the strategy to reduce ozone pollution, particularly in urban settings.

f. The Environmental Protection Agency's approach in determining the effects of precursor emissions on ozone nonattainment. The consortium asserted that the EPA has misinterpreted the intent of section 183(e) of the Act and, therefore, arrived at an incorrect ozone control strategy. The consortium explained that the EPA's strategy is to reduce the peak ozone concentration by examining polluted air and determining the level of precursor emissions that must be removed to achieve attainment. The consortium argued that the only appropriate interpretation of section 183(e) of the Act is to determine which precursors can be added to pristine air and at what levels without exceeding the ozone standard. The consortium claimed that this second interpretation would result in a NO_x-only control strategy. These two interpretations of section 183(e) of the Act are referred to in the comments as the "two sciences" for ozone regulation. The consortium made extensive use of an ozone isopleth chart for one site (Washington, DC) on a specific date to support a number of general conclusions about ozone control.

The consortium's theory is based on the observation that VOC in isolation cannot form ozone. Depending on the existing ratio of VOC to NO_x in local areas, reducing VOC may have a variety of effects on ozone. Reductions in VOC emissions can increase, decrease, or have no effect on ozone concentration. Therefore, the consortium concluded that a control strategy based on national VOC emissions reductions will not be uniformly effective and is not justified. The correct science, in the opinion of the commenters, is to consider what amount of VOC can be added to pristine air before causing a violation of the ozone standard. Since ozone is formed only when NO_x is present, the commenters argued that NO_x should be the exclusive target for emissions reductions. If NO_x concentrations are

sufficiently low, then no amount of VOC added to the ambient air will cause violation of the ozone standard. The consortium asserted that the EPA has chosen an approach that will never achieve permanent attainment, but rather only a temporary false attainment. The consortium reasoned that as additional VOC is added to an airshed that is in attainment and that contains NO_x, nonattainment can recur. A control strategy based on control of NO_x emissions, according to the commenters, would ensure permanent attainment regardless of future VOC levels.

The EPA disagrees that there are two sciences and that the EPA chose the wrong one. One of the purported "sciences" is the present EPA ozone policy of controlling NO_x and VOC. The other purported "science" is a policy choice (using the same scientific basis as the first science) of controlling only NO_x. The EPA does not consider the exclusive control of NO_x emissions to be a practical approach.

The consortium's conclusion that the EPA's goal should be preventing saturation of the air by NO_x is derived from a misunderstanding of the roles of precursors in ozone formation and a misinterpretation of isopleth charts. Isopleth charts show the downwind peak 1-hour ozone concentrations as a function of initial concentrations of VOC and NO_x for an urban area. City-specific charts can be used to estimate the reduction in VOC or NO_x levels needed to achieve the ozone NAAQS in a specific urban area. Isopleth charts are generated from computer modeling of an area considering a number of local atmospheric conditions influencing ozone formation. The consortium has inappropriately used one-day, single-location simulations as representing all of atmospheric chemistry. The consortium has overlooked the acknowledged limitations of isopleth diagrams for use in determining control strategies.

The most serious limitation of use of isopleth charts is that the predictions are critically dependent on the initial VOC/NO_x ratio used in the calculations. This ratio cannot be determined with any certainty because it is quite variable in time and space. Because these isopleth charts are derived using initial VOC/NO_x ratios in the morning, the charts do not depict the evolution of the emissions as the air mass is carried downwind. The VOC/NO_x ratio in an urban plume near the city center can change substantially as the air parcel ages and moves downwind. This change occurs because of the photochemical reactions in the air and the addition of

other emissions to the plume. The implication of this evolution is that different locations in a large urban area can show very different ozone sensitivities to VOC and NO_x controls. The consortium's position does not recognize the dynamic nature of the process and assumes that the composition of urban air remains static.

Unlike the consortium's approach, the EPA's approach recognizes that ozone formation may be limited by VOC or by NO_x at different times and different locations. Thus, even though NO_x control may be the most effective means for achieving the standard on many of the worst days in many locations, reduction of VOC emissions is still necessary to reduce peak ozone concentrations under the variety of meteorological and source receptor conditions that occur in urban areas.

2. Regulation of Attainment Areas via National Rules

The consortium contended that section 183(e) authorizes the EPA to implement rules that regulate consumer and commercial products only in nonattainment areas. The consortium also argued that it is inappropriate and unnecessary for the EPA to develop limits for VOC emissions that apply to all attainment and nonattainment areas under section 183(e) of the Act. The commenters stated that the goal of section 183(e) of the Act is to prevent exceedances of the ozone NAAQS and noted that only certain areas of the country, accounting for a small total land mass, exceed the ozone NAAQS. Furthermore, even within those nonattainment areas, they argued that the EPA should develop a regulatory strategy on a regional basis due to variations in factors affecting ozone formation (e.g., meteorology). Finally, the consortium noted that some ozone nonattainment areas will be able to reach attainment status under present regulations using existing technology to reduce emissions from other sources. Therefore, the consortium's view is that attainment areas and some nonattainment areas do not require regulation under section 183(e) of the Act.

The EPA agrees that the degree of VOC reductions necessary to prevent exceedances of the ozone standard varies regionally. However, it does not agree with the consortium's conclusion that regulations applying to both attainment and nonattainment areas under section 183(e) of the Act are illegal, unnecessary, or inappropriate.

The EPA interprets section 183(e) of the Act to permit the EPA to promulgate rules that apply nationwide. The EPA

bases this interpretation both upon the statutory language of section 183(e), and upon the Congressional directive to utilize any system or systems of regulation necessary to achieve the appropriate reductions. In particular, the EPA believes that the transportability of products and the difficulties attendant upon tracking their ultimate place of use compel the nationwide scope of the final rule.

First, the express statutory language of section 183(e) of the Act does not preclude regulation of products in attainment areas. To the contrary, in section 183(e)(2)(A) and in 183(e)(3)(A) of the Act, Congress explicitly directed the EPA to examine VOC emissions "into the ambient air" without restriction regarding whether such air was in attainment or nonattainment areas. Moreover, the EPA believes that no such distinction between attainment and nonattainment areas is appropriate because section 183(e)(2)(A)(ii) of the Act requires the EPA to assess emissions from consumer and commercial products for their "potential to contribute" to ozone NAAQS violations wherever they may occur. Although commenters argued that the "potential to contribute" clause links the VOC emissions only to those products used in nonattainment areas, the EPA believes that the language of the statute compels no such reading and that it would be illogical given that VOC emissions in attainment areas can contribute to nonattainment in adjoining nonattainment areas.

In section 183(e)(3)(A) of the Act, Congress also explicitly granted the EPA broad powers to reduce emissions into the ambient air in order to combat ozone nonattainment. These powers provided that, to meet the objectives of section 183(e), the EPA may, "by regulation, control or prohibit any activity, including the manufacture or introduction into commerce, offering for sale, or sale of any consumer or commercial product which results in emission of [VOC] into the ambient air." In section 183(e)(4) Congress explicitly provided that to meet the objectives of the provision, the EPA may "include any system or systems of regulation as the Administrator may deem appropriate." The EPA believes that Congress thereby granted the EPA discretion to determine which measures would best obtain reductions and to determine the appropriate geographical scope for such measures. Inherent in this authority is the power to determine that a national rule with nationwide applicability across both attainment and nonattainment areas is the most

appropriate means to obtain the requisite reductions.

In addition, section 183(e)(3)(A) of the Act expressly directs the EPA to promulgate regulations that "require best available controls." In accordance with the definition of that term in the statute, the EPA is to consider "technological and economic feasibility, health, environmental, and energy impacts" and is to consider, among other things, "the most effective equipment, measures, processes, methods, systems, or techniques" to obtain the reductions. The EPA believes that Congress, thus, clearly directed the EPA to take into account the relative effectiveness of the available means to obtain reductions, including controls that would be applicable to all areas or only to nonattainment areas, and to make its determination as to the proper geographic scope of controls based upon appropriate factors. The EPA has determined that national rules that apply nationwide to both attainment and nonattainment areas are the BAC to insure that reductions in VOC emissions occur for certain categories of products.

The EPA has concluded that a national rule is the more effective approach for reducing emissions from consumer products, automobile refinish coatings, and architectural coatings for the following reasons. First, the EPA believes that a national rule is an appropriate means to deal with the issue of products that are, by their nature, easily transported across area boundaries and many are widely distributed and are used by widely varied types of end-users. For many such products, the end-user may use them in different locations from day-to-day. Because the products themselves are easily transportable, a national rule would preempt opportunities for end-users to purchase such consumer and commercial products in attainment areas and then use them in nonattainment areas, thereby circumventing the regulations and undermining the decrease in VOC emissions in nonattainment areas. The EPA, therefore, believes that a national rule with applicability to products, regardless of where they are marketed, is a reasonable means to ensure that the regulations result in the requisite degree of VOC emission reduction.

Second, the EPA believes that rules applicable only in nonattainment areas would be unnecessarily complex and burdensome for many regulated entities to comply with and for the EPA to administer. The potentially regulated entities under section 183(e) are the manufacturers, processors, wholesale distributors, or importers of consumer

and commercial products. For these three product categories, EPA believes that regulations that would differentiate between products destined for attainment and nonattainment areas should adequately insure that only compliant products go to nonattainment areas. For such a rule to be effective, EPA believes that this would necessitate requiring regulated entities to track their products and control their distribution, sale, and ultimate destination for use to insure that only compliant products go to nonattainment areas. The EPA notes that for architectural coatings and consumer products, regulated entities do not currently track or control distribution of their products once they sell them to retail distributors. Although the EPA recognizes that some product lines in some product categories may only be distributed regionally in areas that are already in attainment, the large majority of the product lines will be distributed nationally. Regulations targeted only at nonattainment areas could, thus, impose significant additional burdens upon regulated entities to achieve the goals of section 183(e).

By comparison, existing State regulations in some instances apply to a broader range of entities, including retail distributors and end users. Given the limitations of section 183(e) as to regulated entities, the EPA believes that regulations applicable to both attainment areas and nonattainment areas is a reasonable means to ensure use of complying products where necessary, while avoiding potentially burdensome impacts and less reliable mechanisms to achieve the goals of section 183(e). Several of the trade associations of the industries for whom the EPA has proposed national rules (i.e., architectural coatings, consumer products, and automobile refinish coatings) have supported national rules that apply to all areas as the most efficient regulatory mechanism from the perspective of marketing and distribution of products. The EPA's consideration of this factor, however, is not meant to imply that it would be inappropriate for States to develop more stringent levels of controls where necessary to attain the ozone standard. Instead, the national standard is expected to reduce the number of States needing to develop separate rules for these categories.

Third, the EPA believes that national rules with nationwide applicability may help to mitigate the impact of ozone and ozone precursor transport across some area boundaries. Recent modeling performed by OTAG and others suggests that, in some circumstances, VOC

emitted outside nonattainment area boundaries can contribute to ozone pollution in nonattainment areas—for example, by traveling relatively short distances into neighboring nonattainment areas. The EPA has recognized the potential for VOC transport in the December 29, 1997, "Guidance for Implementing the 1-hour Ozone and Pre-Existing PM₁₀ NAAQS," concerning credit for VOC emission reductions towards rate of progress requirements. The guidance indicates that the EPA may give credit for VOC reductions within 100 kilometers of nonattainment areas. In addition, the June 1997 recommendations made by OTAG supported the EPA's use of VOC regulations that apply to both nonattainment and attainment areas to implement section 183(e) of the Act for certain products. The particular product categories OTAG cited for national VOC regulations are automobile refinishing coatings, consumer products, and architectural coatings. The EPA believes that regulation of products in attainment areas is necessary to mitigate VOC emissions that have the potential to contribute to ozone nonattainment in accordance with section 183(e) of the Act.

The EPA notes that some commenters asserted that one clause in section 183(e)(3)(A) of the Act compels the conclusion that Congress intended the EPA to regulate consumer and commercial products only in nonattainment areas. That subsection of the Act instructs the EPA to list the products that account for at least 80 percent of the VOC emissions "from consumer or commercial products in areas that violate the NAAQS for ozone." The EPA believes that this clause pertains not to the scope of the regulations that the EPA may choose to impose, but rather to the listing process itself. Thus, the EPA believes that this provision of the statute requires the EPA to regulate the categories of products that account for at least 80 percent of the VOC emissions in nonattainment areas, but does not necessarily control whether the EPA is to regulate such products only in nonattainment areas. Because the EPA has otherwise determined that a national rule with applicability in both attainment and nonattainment areas is the best means to obtain the necessary VOC emission reductions intended by Congress, the EPA believes that the language in question does not preclude that strategy.

Finally, the arguments in this section supporting the EPA's authority and rationale for regulating both nonattainment and attainment areas under section 183(e) of the Act are not

intended to imply that the EPA would not consider using its discretion to develop a control techniques guidelines (CTG) document (which would affect VOC emissions only in nonattainment areas) for a category in lieu of a regulation. The EPA recognizes that patterns of distribution and use will vary among categories of products. Therefore, the EPA intends to use its discretion to determine the most efficient and effective mode of regulation for each of the categories listed for regulation under section 183(e) of the Act.

III. Administrative Requirements

A. Dockets

The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards (technical support document submitted at proposal) and the EPA responses to significant comments, the contents of the Docket will serve as the record in case of judicial review (see 42 U.S.C. 7607(d)(7)(A)).

As noted under the "Docket" discussion in the ADDRESSES section of this document, there are four dockets that contain information considered in these listing determinations. Docket No. A-94-65 contains information considered by the EPA in development of the consumer and commercial products study and the subsequent list and schedule for regulation. Docket No. A-92-18 contains information considered by the EPA in the development of the architectural coatings rule. Docket No. A-95-40 contains information on the consumer products rule. Docket No. A-95-18 contains information on the automobile refinishing coatings rulemaking.

B. Paperwork Reduction Act

This action does not involve any information collection requirements subject to an Office of Management and Budget (OMB) review under the *Paperwork Reduction Act*, 44 U.S.C. 3501, *et seq.*

C. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether regulatory actions

are significant and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to lead to a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more, or adversely and materially affect 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 obligation 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, OMB has notified the EPA that it considers this a "significant regulatory action" within the meaning of the Executive Order because it is likely to lead to rules which may meet one or more of the criteria. Accordingly, the EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

D. Executive Order 12875

To reduce the burden of Federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled *Enhancing the Intergovernmental Partnership*. This executive order requires agencies to assess the effects of regulations that are not required by statute and that create mandates upon State, local, or tribal governments. This action does not create mandates on State, local, or tribal governments. Therefore, the requirements of Executive Order 12875 do not apply to this action.

E. Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act of 1996

The Regulatory Flexibility Act (RFA) of 1980 (5 U.S.C. 601, *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), requires the EPA to give special consideration to the effect of Federal regulations on small entities and to consider regulatory options that might mitigate any such impacts. The EPA is required to prepare a regulatory flexibility analysis and coordinate with small entity stakeholders if the EPA determines that a rule will have a

significant economic impact on a substantial number of small entities.

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final listing action. The EPA has also determined that this listing action will not have a significant economic impact on a substantial number of small entities because this action imposes no requirements. In accordance with the RFA and SBREFA, the EPA has performed the requisite analysis for each of the three rules. A statement of this analysis accompanies each of the three rules, published elsewhere in today's **Federal Register**.

F. Unfunded Mandates Reform Act of 1995

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate, or to the private sector, of \$100 million or more in any one year. Under section 205, the EPA must select the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that because the final listing action taken today imposes no requirements, it does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector, in any one year. Therefore, the requirements of sections 202 and 205 of the Unfunded Mandates Reform Act do not apply to this action.

The EPA has determined, for the same reason, that the final listing action taken today does not include any regulatory requirements that might significantly or uniquely affect small governments. Thus, today's action is not subject to the requirements of section 203 of the Unfunded Mandates Act.

G. Submission to Congress and the General Accounting Office

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the SBREFA of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a

copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this action and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of this action in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective September 11, 1998.

H. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (the NTTAA), Pub. L. No. 104-113, section 12(d) (15 U.S.C. 272 note), directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices, etc.) that are developed or adopted by voluntary consensus standard bodies. The NTTAA requires the EPA to provide Congress, through OMB, explanations when the EPA decides not to use available and applicable voluntary consensus standards.

This action does not involve any technical standards that would require the EPA consideration of voluntary consensus standards pursuant to § 12(d) of the NTTAA. This action does not establish any requirements.

I. Executive Order 13045

Executive Order 13045 applies to any rule that the EPA determines (1) that the rule is economically significant as defined under Executive Order 12866, and (2) that the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

This final action is not subject to Executive Order 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), because it is not an economically significant regulatory action as defined by Executive Order 12866, and it does

not address an environmental health or safety risk that would have a disproportionate effect on children.

Executive Order 13084

Under Executive Order 13084, the EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or the EPA provides to the Office of Management and Budget a description of the prior consultation and communications the agency has had with representatives of tribal governments and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires the EPA to develop an effective process permitting elected and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities." Information available to the Administrator does not indicate that this action will have any effect on Indian tribal governments.

List of Subjects in 40 CFR Ch. I

Environmental protection, Air pollution control, Consumer and commercial products, Consumer products, Ozone, Volatile organic compound.

Dated: August 14, 1998.

Carol M. Browner,
Administrator.

[FR Doc. 98-22658 Filed 9-10-98; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 59

[AD-FRL-6149-5]

RIN 2060-AE35

National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national volatile organic compound (VOC) emission standards for automobile refinish coatings pursuant to

section 183(e) of the Clean Air Act (Act). This final rule is based on the Administrator's determination that VOC emissions from the use of automobile refinish coatings have the potential to cause or contribute to ozone levels that violate the national ambient air quality standards (NAAQS) for ozone. Ozone is a major component of smog which causes negative health and environmental impacts when present in high concentrations at ground level. The final rule is estimated to reduce VOC emissions by 31,900 tons per year (tpy) by requiring manufacturers and importers to limit the VOC content of automobile refinish coatings.

EFFECTIVE DATE: The effective date is September 11, 1998. Incorporation by reference of certain publications listed in the regulation is approved by the Director of the Federal Register as of September 11, 1998.

ADDRESSES: *Technical Support Documents.* The regulation promulgated today is supported by two background information documents (BIDs), one specific to the automobile refinish coatings rule, and one that addresses comments on the study and Report to Congress under section 183(e) that is a basis for this rule. The document, "Volatile Organic Compound Emissions from Automobile Refinishing—Background Information for Promulgated Standards" (EPA-453/R-96-011b), contains a summary of the public comments made on the proposed automobile refinish coatings rule and the Agency's responses to the comments. The document, "Response to Comments on Section 183(e) Study and Report to Congress" (EPA-453/R-98-007), contains a summary of all the public comments made on the section 183(e) study and Report to Congress and the list and schedule for regulation as well as the Agency's responses to the comments.

These documents may be obtained from several sources: (1) the docket for this rulemaking; (2) the U.S. Environmental Protection Agency Library (MD-35), Research Triangle Park, North Carolina 27711, telephone (919) 541-2777; (3) National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22151, telephone (703) 487-4650; and (4) through the Internet at <http://www.epa.gov/ttn/oarpg/ramain.html>.

Docket. Docket No. A-95-18, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8:00 a.m. to 5:30 p.m. Monday through Friday, at the EPA's Air and Radiation Docket and