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Consumer and Commercial Products: Control Techniques Guidelines in Lieu of Regulations for Paper, Film, and Foil Coatings; Metal Furniture Coatings; and Large Appliance Coatings; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 59

[EPA–HQ–OAR–2007–0454; FRL–8336–7]

RIN 2060–A014

Consumer and Commercial Products: Control Techniques Guidelines in Lieu of Regulations for Paper, Film, and Foil Coatings; Metal Furniture Coatings; and Large Appliance Coatings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to section 183(e)(3)(C) of the Clean Air Act, EPA proposes to determine that control techniques guidelines will be substantially as effective as national regulations in reducing emissions of volatile organic compounds in ozone national ambient air quality standard nonattainment areas from the following three product categories: Paper, film, and foil coatings; metal furniture coatings; and large appliance coatings. Based on this determination, EPA may issue Control Techniques Guidelines in lieu of national regulations for these product categories. EPA has prepared draft Control Techniques Guidelines for the control of volatile organic compound emissions from each of the product categories covered by this proposed determination. Once finalized, these Control Techniques Guidelines will provide guidance to the States concerning EPA's recommendations for reasonably available control technology-level controls for these product categories. EPA further proposes to take final action to list the three Group III consumer and commercial product categories addressed in this notice pursuant to Clean Air Act section 183(e).

DATES: *Comments:* Written comments on the proposed determination must be received by August 9, 2007, unless a public hearing is requested by July 20, 2007. If a hearing is requested on the proposed determination, written comments must be received by August 24, 2007. We are also soliciting written comments on the draft CTGs and those comments must be submitted within the comment period for the proposed determination.

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing concerning the proposed determination by July 20, 2007, we will hold a public hearing on July 25, 2007. The substance of any such hearing will be limited solely to EPA's proposed determination under Clean Air Act (CAA or the Act) section 183(e)(3)(C) that the Control Techniques Guidelines (CTGs) for the three Group III product categories will be substantially as effective as regulations in reducing volatile organic compound (VOC) emissions in ozone nonattainment areas. Accordingly, if a commenter has no objection to EPA's proposed determination under CAA section 183(e)(3)(C), but has comments on the substance of a draft CTG, the commenter should submit those comments in writing.

ADDRESSES: Submit your comments, identified by applicable docket ID number, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov*. Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-docket@epa.gov*.
- *Fax:* (202) 566–1741.
- *Mail:* Comments concerning the Proposed Determination should be sent to: Consumer and Commercial Products, Group III—Determination to Issue Control Techniques Guidelines in Lieu of Regulations, Docket No. EPA–HQ–OAR–2007–0454. Comments concerning any draft CTG should be sent to the applicable docket, as noted below: Consumer and Commercial Products—Paper, Film, and Foil Coatings, Docket No. EPA–HQ–OAR–2007–0336; Consumer and Commercial Products—Metal Furniture Coatings, Docket No. EPA–HQ–OAR–2007–0334; or Consumer and Commercial Products—Large Appliance Coatings, Docket No. EPA–HQ–OAR–2007–0329, Environmental Protection Agency, EPA Docket Center, Mailcode 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of two copies.
- *Hand Delivery:* EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to the applicable docket. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or e-mail. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Public Hearing: If a public hearing is held, it will be held at 10 a.m. on July 25, 2007 at Building C on the EPA campus in Research Triangle Park, NC, or at an alternate site nearby. Persons interested in presenting oral testimony must contact Ms. Dorothy Apple, U.S. EPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group (E143–03), Research Triangle Park, North Carolina 27711, telephone number: (919) 541–4487, fax number (919) 541–3470, e-mail address: *apple.dorothy@epa.gov*, no later than July 20, 2007. Persons interested in attending the public hearing must also call Ms. Apple to verify the time, date, and location of the hearing. If no one contacts Ms. Apple by July 20, 2007 with a request to present oral testimony at the hearing, we will cancel the hearing.

Docket: All documents in the docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal

holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For information concerning the CAA section 183(e) consumer and commercial products program, contact Mr. Bruce Moore, U.S. EPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group (E143–03), Research Triangle Park, North Carolina 27711, telephone number: (919) 541–5460, fax number (919) 541–3470, e-mail address: *moore.bruce@epa.gov*. For further information on technical issues concerning the proposed determination and draft CTG for paper, film, and foil coatings, contact: Ms. Kim Teal, U.S. EPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group (E143–03), Research Triangle Park, North Carolina 27711, telephone number: (919) 541–5580, e-mail address: *teal.kim@epa.gov*. For further information on technical issues concerning the proposed determination and draft CTG for metal furniture coatings, contact: Ms. Martha Smith, U.S. EPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group (E143–03), Research Triangle Park, North Carolina 27711, telephone number: (919) 541–2421, e-mail address: *smith.martha@epa.gov*. For further information on technical issues concerning the proposed determination and draft CTG for large appliance coatings, contact: Mr. Lynn Dail, U.S. EPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group (E143–03), Research Triangle Park, North Carolina 27711, telephone number: (919) 541–2363, e-mail address: *dail.lynn@epa.gov*.

SUPPLEMENTARY INFORMATION:

Entities Potentially Affected by this Action. The entities potentially affected by this action include industrial facilities that use the respective consumer and commercial products covered in this action as follows:

Category	NAICS code [a]	Examples of affected entities
Paper, film, and foil coatings	322221, 322222, 322223, 322224, 322225, 322226, 322229, 325992, 326111, 326112, 326113, 32613, 32791, 339944.	Facilities that apply coatings to packaging paper, paper bags, laminated aluminum foil, coated paperboard, photographic film, abrasives, carbon paper, and other coated paper, film and foil products.
Metal furniture coatings	337124, 337214, 337127, 337215, 337127, 332951, 332116, 332612, 337215, 335121, 335122, 339111, 339114, 337127, 81142.	Facilities that apply protective, decorative, or functional material to metal furniture components or products.
Large appliance coatings	335221, 335222, 335224, 335228, 333312, 333319.	Facilities that apply coatings to household and commercial cooking equipment, refrigerators, laundry equipment, laundry dry-cleaning and pressing equipment.
Federal Government		Not affected.
State/local/tribal government		State, local and tribal regulatory agencies.

[a] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. To determine whether your facility would be affected by this action, you should examine the applicable industry description in sections II.A, III.A, and IV.A of this notice. If you have any questions regarding the applicability of this action to a particular entity, consult the appropriate EPA contact listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice.

Preparation of Comments. Do not submit information containing CBI to EPA through *www.regulations.gov* or e-mail. Send or deliver information identified as CBI only to the following address: Mr. Roberto Morales, OAQPS Document Control Officer (C404–02), U.S. EPA, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711, Attention: Docket ID EPA–HQ–OAR–2007–0454, 0336, 0334, or 0329 (as applicable). Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

World Wide Web (WWW). In addition to being available in the docket, an electronic copy of this proposed action will also be available on the World Wide Web (WWW) through the Technology Transfer Network (TTN). Following signature, a copy of the proposed action will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg/*. The TTN provides information and technology exchange in various areas of air pollution control.

Organization of this Document. The information presented in this notice is organized as follows:

I. Background Information and Proposed Determination

A. The Ozone Problem

Ground-level ozone, a major component of smog, is formed in the atmosphere by reactions of VOC and oxides of nitrogen 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, as well as agricultural crop loss, and damage to forests and ecosystems. Controlled human exposure studies show that acute health effects are induced by short-term (1 to 2 hour) exposures (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 (6 to 8 hour) exposures to ozone (observed at concentrations as low as 0.08 ppm and possibly lower), typically while individuals are engaged in moderate exertion. Transient effects from acute exposures include pulmonary inflammation, respiratory symptoms, effects on exercise performance, and increased airway responsiveness. Epidemiological studies have shown associations between ambient ozone levels and increased susceptibility to respiratory infection, increased hospital admissions and emergency room visits. Groups at increased risk of experiencing elevated exposures include active children, outdoor workers, and others who regularly engage in outdoor activities. Those most susceptible to the effects of ozone include those with preexisting respiratory disease, children, and older adults. The literature suggests the possibility 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).

B. Statutory and Regulatory Background

Under section 183(e) of the CAA, EPA conducted a study of 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) of the CAA directs EPA to list for regulation those categories of products that account for at least 80 percent of the VOC emissions, on a reactivity-adjusted basis, from consumer and commercial products in areas that violate the NAAQS for ozone (*i.e.*, ozone nonattainment areas), and to divide the list of categories to be regulated into four groups. EPA published the initial list in the **Federal Register** on March 23, 1995 (60 FR 15264). In that notice, EPA stated that it may amend the list of products for regulation, and the groups of product categories, in order to achieve an effective regulatory program in accordance with the Agency's discretion under CAA section 183(e).

EPA has revised the list several times. See 70 FR 69759 (Nov. 17, 2005); 64 FR 13422 (Mar. 18, 1999). Most recently, in May 2006, EPA revised the list to add one product category, portable fuel containers, and to remove one product category, petroleum dry cleaning solvents. See 71 FR 28320 (May 16, 2006). As a result of these revisions, Group III of the list comprises five product categories: Portable fuel containers; aerosol spray paints; paper, film, and foil coatings; metal furniture coatings; and large appliance coatings. The portable fuel containers [2] and aerosol spray paints categories are addressed in separate rulemaking actions [3]; the remaining three categories are the subject of this action.

Any regulations issued under section CAA 183(e) must be based on ''best available controls'' (BAC). CAA section 183(e)(1)(A) defines BAC as ''the degree of emissions reduction that the Administrator determines, on the basis of technological and economic feasibility, health, environmental, and energy impacts, is achievable through the application of the most effective equipment, measures, processes, methods, systems or techniques, including chemical reformulation, product or feedstock substitution, repackaging, and directions for use, consumption, storage, or disposal.'' CAA section 183(e) also provides EPA with authority to use any system or systems of regulation that EPA determines is the most appropriate for the product category. Under these provisions, EPA has previously issued ''national'' regulations for architectural and industrial maintenance coatings, autobody refinishing coatings, consumer products, and portable fuel containers.[4]

CAA section 183(e)(3)(C) further provides that EPA may issue a CTG in lieu of a national regulation for a product category where EPA determines that the CTG will be ''substantially as effective as regulations'' in reducing emissions of VOC in ozone nonattainment areas. The statute does not specify how EPA is to make this determination, but does provide a fundamental distinction between national regulations and CTGs.

Specifically, for national regulations, CAA section 183(e) defines regulated entities as:

> (i) * * * manufacturers, processors, wholesale distributors, or importers of consumer or commercial products for sale or distribution in interstate commerce in the United States; or (ii) manufacturers, processors, wholesale distributors, or importers that supply the entities listed under clause (i) with such products for sale or distribution in interstate commerce in the United States.

Thus, under CAA section 183(e), a regulation for consumer or commercial products is limited to measures applicable to manufacturers, processors, distributors, or importers of the solvents, materials, or products supplied to the consumer or industry. CAA section 183(e) does not authorize EPA to issue national regulations that would directly regulate end-users of these products. By contrast, CTGs are guidance documents that recommend reasonably available control technology (RACT) measures that States can adopt and apply to the end users of products. This dichotomy (*i.e.*, that EPA cannot directly regulate end-users under CAA section 183(e), but can address end-users through a CTG) created by

[2] EPA promulgated a national regulation for VOC emissions from portable fuel containers on February 26, 2007 (72 FR 8428). National VOC emission standards for aerosol coatings currently are under development.

[3] Pursuant to the court's order in *Sierra Club* v. *EPA,* 1:01–cv–01597–PLF (D.C. Cir., March 31, 2006), EPA must take final action on the product categories in Group III by September 30, 2007.

[4] See 63 FR 48792, 48819, and 48848 (September 11, 1998); and 72 FR 8428 (February 26, 2007).

Congress is relevant to EPA's evaluation of the relative merits of a national regulation versus a CTG.

C. Significance of CTGs

CAA section 172(c)(1) provides that state implementation plans (SIPs) for nonattainment areas must include ''reasonably available control measures'' (RACM), including RACT, for sources of emissions. Section 182(b)(2) provides that States must revise their ozone SIPs to include RACT for each category of VOC sources covered by any CTG document issued after November 15, 1990, and prior to the date of attainment. Those ozone nonattainment areas that are subject to CAA section 172(c)(1) and submit an attainment demonstration seeking more than 5 years from the date of designation to attain must also meet the requirements of CAA section 182(b)(2) and revise their ozone SIPs in response to any CTG issued after November 15, 1990, and prior to the date of attainment. Other ozone nonattainment areas subject to CAA section 172(c)(1) may take action in response to this guidance, as necessary to attain.

EPA defines RACT as ''the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility, 44 FR 53761 (Sept. 17, 1979).'' In subsequent notices, EPA has addressed how states can meet the RACT requirements of the Act. Significantly, RACT for a particular industry is determined on a case-by-case basis, considering issues of technological and economic feasibility.

EPA provides States with guidance concerning what types of controls could constitute RACT for a given source category through issuance of a CTG. The recommendations in the CTG are based on available data and information and may not apply to a particular situation based upon the circumstances. States can follow the CTG and adopt State regulations to implement the recommendations contained therein, or they can adopt alternative approaches. In either event, States must submit their RACT rules to EPA for review and approval as part of the SIP process. EPA will evaluate the rules and determine, through notice and comment rulemaking in the SIP process, whether they meet the RACT requirements of the Act and EPA's regulations. To the extent a State adopts any of the recommendations in a CTG into its State RACT rules, interested parties can raise questions and objections about the substance of the guidance and the appropriateness of the application of the guidance to a particular situation during the development of the State rules and EPA's SIP approval process.

We encourage States in developing their RACT rules to consider carefully the facts and circumstances of the particular sources in their States because, as noted above, RACT is determined on a case-by-case basis, considering issues of technological and economic feasibility. For example, a state may decide not to require 90 percent control efficiency at facilities that are already well controlled, if the additional emission reductions would not be cost-effective. States may also want to consider reactivity-based approaches, as appropriate, in developing their RACT regulations.[5] Finally, if States consider requiring more stringent VOC content limits than those recommended in the draft CTGs, states may also wish to consider averaging, as appropriate. In general, the RACT requirement is applied on a short-term basis up to 24 hours.[6] However, EPA guidance permits averaging times longer than 24 hours under certain conditions.[7] The EPA's ''Economic Incentive Policy'' [8] provides guidance on use of long-term averages with regard to RACT and generally provides for averaging times of no greater than 30 days. Thus, if the appropriate conditions are present, States may consider the use of averaging in conjunction with more stringent limits. Because of the nature of averaging, however, we would expect that any State RACT Rules that allow for averaging also include appropriate recordkeeping and reporting requirements.

By this action, we are making available draft CTGs that cover three product categories in Group III of the CAA section 183(e) list. These CTGs are guidance to the States and provide recommendations only. A State can develop its own strategy for what constitutes RACT for these three product categories, and EPA will review that strategy in the context of the SIP process and determine whether it meets the RACT requirements of the Act and its implementing regulations.

Finally, CAA section 182(b)(2) provides that a CTG issued after 1990 specify the date by which a State must submit a SIP revision in response to the CTG. In the draft CTGs at issue here, EPA provides that States should submit their SIP revisions within 1 year of the date that the CTGs are finalized.

D. General Considerations in Determining Whether a CTG Will Be Substantially as Effective as a Regulation

CAA Section 183(e)(3)(C) authorizes EPA to issue a CTG in lieu of a regulation for a category of consumer and commercial products if a CTG ''will be substantially as effective as regulations in reducing VOC emissions'' in ozone nonattainment areas. The statute does not specify how EPA is to make this determination.

On July 13, 1999 (64 FR 37773), EPA issued a final determination pursuant to CAA section 183(e)(3)(C), concluding that CTGs for wood furniture coatings, aerospace coatings, and shipbuilding and repair coatings were substantially as effective as national regulations in reducing emissions of VOC from these products in areas that violate the NAAQS for ozone. On October 5, 2006 (71 FR 58745), EPA issued a similar final determination for flexible packaging printing materials, lithographic printing materials, letterpress printing materials, industrial cleaning solvents, and flat wood paneling coatings. Recognizing that the statute does not specify any criteria for making a determination under CAA section 183(e)(3)(C), EPA, in 1999 and 2006, considered several relevant factors, including: (1) The product's distribution and place of use; (2) the most effective entity to target to control emissions—in other words, whether it is more effective to achieve VOC reductions at the point of manufacture of the product or at the point of use of the product; (3) consistency with other VOC control strategies; and (4) estimates of likely VOC emission reductions in ozone nonattainment areas which would result from the regulation or CTG. EPA believes that these factors are useful for evaluating whether the rule or CTG approach would be best from the perspective of implementation and enforcement of an effective strategy to achieve the intended VOC emission reductions. As we consider other product categories in the current and

[5] ''Interim Guidance on Control of Volatile Organic Compounds in Ozone State Implementation Plans,'' 70 FR 54046 (September 13, 2005).

[6] See, *e.g.*, 52 FR at 45108, col. 2, ''Compliance Periods'' (November 24, 1987). ''VOC rules should describe explicitly the compliance timeframe associated with each emission limit (*e.g.*, instantaneous or daily). However, where the rules are silent on compliance time, EPA will interpret it as instantaneous.''

[7] Memorandum from John O'Connor, Acting Director of the Office of Air Quality Planning and Standards, January 20, 1984, ''Averaging Times for Compliance with VOC Emission Limits—SIP Revision Policy.''

[8] ''Improving Air Quality with Economic Incentive Programs, January 2001,'' available at *http://www.epa.gov/region07/programs/artd/air/policy/search.htm.*

future phases of regulation under CAA section 183(e), there may be other factors that are relevant to the CAA section 183(e)(3)(C) determination for given product categories. EPA believes that in making these determinations, no single factor is dispositive. On the contrary, for each product category, we must weigh the factors and make our determination based on the unique set of facts and circumstances associated with that product category. For purposes of making the determination, EPA analyzed the components of the draft CTGs for the product categories at issue and compared the draft CTGs to the types of controls and emission strategies possible through a regulation. As we explained in 1999, it would be unreasonable for EPA, in effect, to have to complete both the full rulemaking and full CTG development processes before being able to make a determination under CAA section 183(e)(3)(C) validly. EPA believes that it is possible for the Agency to make a determination between what a rule might reasonably be expected to achieve versus what a CTG might reasonably be expected to achieve, without having to complete the entire rulemaking and CTG processes. To conclude otherwise would result in unnecessary wasting of limited time and resources by the Agency and the stakeholders participating in the processes. Moreover, such an approach would be directly contrary to CAA section 183(e)(3)(C), which authorizes EPA to issue a CTG in lieu of a regulation if it determines that the CTG ''will be substantially as effective as'' a regulation in reducing VOC emissions in ozone nonattainment areas.

With regard to the three product categories at issue here, EPA notes that it does not have reliable quantitative data that would enable it to conduct a ton-by-ton comparison of the likely emission reductions associated with a national regulation versus a CTG. Although we conducted such a comparative analysis in 1999 for the product categories of wood furniture coatings, aerospace coatings and shipbuilding and repair coatings, (64 FR 37773, July 13, 1999), such analysis is not necessary for evaluating likely VOC emission reductions, particularly, where, as in our Group II action (71 FR 58745, October 5, 2006) and here, a CTG can achieve significant emission reductions from end-users of the consumer and/or commercial products at issue, which cannot be achieved through regulation under CAA section 183(e). In addition, for the reasons described below, a regulation governing the manufacturers and suppliers of these products would be unlikely to achieve the objective of reducing VOC emissions from these products in ozone nonattainment areas.

E. Proposed Determination

Based on the factors identified above and the facts and circumstances associated with each of the Group III product categories, EPA proposes to determine that CTGs for paper, film, and foil coatings; metal furniture coatings; and large appliance coatings will be substantially as effective as national regulations in reducing VOC emissions from facilities located in ozone nonattainment areas.

In each of the three product category sections below, we provide a general description of the industry, identify the sources of VOC emissions associated with the industry, summarize the recommended control techniques in the draft CTG and describe the impacts of those techniques, and discuss the considerations supporting our proposed determination under CAA section 183(e)(3)(C) that a CTG will be substantially as effective as a regulation in reducing VOC emissions in ozone nonattainment areas from the product category at issue.

The specific subsections below that address our proposed determination for each product category are organized into two parts, each of which addresses two of the factors relevant to the CAA section 183(e)(1)(C) determination. The first part addresses whether it is more effective to target the point of manufacture of the product or the point of use for purposes of reducing VOC emissions and discusses whether our proposed approach is consistent with existing Federal, State and local VOC reduction strategies. The second part addresses the product's distribution and place of use and discusses the likely VOC emission reductions associated with a CTG, as compared to a regulation.

Finally, we propose to find that these three product categories are appropriate for inclusion on the CAA section 183(e) list in accordance with the factors and criteria that EPA used to develop the original list. See Consumer and Commercial Products: Schedule for Regulation, 60 FR 15264 (Mar. 23, 1995).

F. Availability of Documents

EPA has prepared draft CTG documents covering the three consumer and commercial products source categories addressed in this action. Each of the draft CTGs addresses, among other things, RACT recommendations, cost impacts, and existing Federal, state and local VOC control strategies. These draft CTGs are available for public comment and are contained in the respective dockets listed in the **ADDRESSES** section of this notice.

II. Paper, Film, and Foil Coatings

A. Industry Characterization

1. Source Category Description

This category of consumer and commercial products includes the coatings that are applied to paper, film, and foil in manufacturing products for the following industry sectors: Pressure sensitive tapes and labels, photographic film; industrial and decorative laminates; and flexible packaging.[9] The category also includes coatings applied during miscellaneous paper, film, and foil surface coating operations for several products including: corrugated and solid fiber boxes; die-cut paper, paperboard, and cardboard; converted paper and paperboard, not elsewhere classified; folding paperboard boxes, including sanitary boxes; manifold business forms and related products; plastic aseptic packaging; and carbon paper and inked ribbons. Paper, film, and foil surface coating can be described as a web coating process, which is a process that applies a continuous layer of coating material across the entire width or any portion of the width of a web substrate for any of the following reasons: (1) To provide a covering, finish, or functional or protective layer to a substrate; (2) to saturate a substrate for lamination; or (3) to provide adhesion between two substrates for lamination. The web coating operations and emission control techniques do not vary significantly among the sectors of the paper, film, and foil industry.

2. Processes, Sources of VOC Emissions, and Controls

The coatings and cleaning materials[10] used in paper, film, and foil surface

[9] Coating performed on or in-line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press is not part of the paper, film and foil coating category. The application of inks, coatings and adhesives on or in-line with rotogravure or flexographic printing presses used in the production of flexible packaging is addressed in the CTG for Flexible Package Printing (EPA 453/R–06–003, September 2006). The application of inks, coatings and adhesives on or in-line with publication rotogravure printing presses is addressed in the CTG for Graphic Arts: Rotogravure and Flexography (EPA 450/2–78–033). The application of inks, coatings and adhesives on or in-line with offset lithographic or letterpress printing presses is addressed in the CTG for Offset Lithographic Printing and Letterpress Printing (EPA 453/R–06–002, September 2006).

[10] In a previous notice, EPA identified specific categories, including paper, film, and foil coating, the cleaning operations of which would not be

coating operations are sources of VOC emissions. The coating line is the main source of VOC emissions. The remaining emissions are principally from cleaning operations. VOC emissions from surface preparation, solvent handling and storage, and waste/wastewater operations are small. The following discussion describes the sources of VOC from the coatings and cleaning materials.

The VOC in coatings are emitted from the coating line. In general, a coating line consists of a series of one or more unwind/feed stations; one or more coating applicators; one or more flash-off areas (the area between two consecutive coating applicators or between a coating applicator and a drying oven); one or more drying ovens; and one or more rewind/cutting stations. The majority, usually greater than 90 percent, of the VOC in the coatings volatilizes in the drying ovens. A smaller amount of VOC in the coatings volatilizes at the coating applicator and flash-off area. The amount of VOC emitted from coatings varies depending on the type of coatings being used. The types of coatings used in the paper, film, and foil surface coating industry include solvent-borne and waterborne coatings, as well as radiation-cure coatings, hot-melt adhesives and other 100 percent solids coatings.

Solvent-borne coatings are widely used in the paper, film, and foil surface coating industry. Solvent-borne coating formulations typically range from 40 to 80 percent solvents by weight, as supplied by the manufacturer. The solvent-borne coatings may be diluted by the users with additional solvents prior to being used. The primary solvents in solvent-borne coatings include methanol, methyl ethyl ketone, toluene, and xylene. A significant part of the volatiles in waterborne coating is water, although some VOC-containing solvents may be used at up to 30 percent of the volatiles. Most coating equipment used for solvent-borne coatings can also be used for waterborne coatings.

Radiation cure coatings, hot-melt adhesives and other 100 percent solids coatings such as wax coatings, wax laminations, extrusion coatings, extrusion laminations, and cold seal coatings typically contain no solvent. Accordingly, these coatings emit very little VOC. More information on coatings is provided in the draft CTG.

Common techniques to reduce emissions from paper, film, and foil coatings include the use of low-VOC content coatings and the operation of add-on control systems where low-VOC content coatings cannot be used due to performance requirements calling for higher VOC coatings. An add-on control system consists of a capture system and a control device. The majority of VOC emissions from paper, film and foil coating occur in the drying oven. These emissions can be ducted from the drying oven directly to a control device. The drying oven is therefore typically the principal element of the capture system. In addition, hoods, floor sweeps or enclosures can be used to collect VOC emissions that occur in the coating application and flash-off areas, and route them to a control device.

The most common add-on controls in use at paper, film, and foil surface coating facilities are thermal oxidizers and carbon adsorbers, both of which achieve greater than 90 percent control.

The design of the capture system and the choice of the control device can greatly contribute to the overall VOC control efficiency, which is a combination of both capture and control efficiency. Please see the draft CTG for further detailed descriptions of add-on controls and capture systems that we reviewed in developing the draft CTG.

As previously mentioned, another source of VOC emissions from paper, film, and foil surface coating operations is cleaning materials. Cleaning materials are used for several purposes, including washing equipment, removing residues from coating applicators, and cleaning spray guns. These materials are typically mixtures of organic solvents and represent less than 2 percent of the VOC emissions from paper, film, and foil surface coating operations. Work practices are widely used throughout the paper, film, and foil surface coating industry as a means of reducing VOC emissions from the cleaning materials during cleaning operations. These measures include covering cleaning material mixing tanks; storing cleaning solvents and solvent-soaked rags and wipes in closed containers; and cleaning spray guns in an enclosed system. Another means of reducing VOC emission from paper, film, and foil cleaning materials is the use of low-VOC content or low vapor pressure cleaning materials. Within the industry, there are controlled cleaning operations where cleaning is automated, enclosed and vented to a control device. Use of recycled solvents for cleaning is also typical in the industry.

3. Existing Federal, State and Local VOC Control Strategies

There are three previous EPA actions that affect paper, film, and foil surface coating operations. In 1977, EPA issued a CTG document entitled ''Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks'' (EPA–450/2–77–008) (1977 CTG). The 1977 CTG provided RACT recommendations for controlling VOC emissions from paper coating and fabric [11] coating operations. The 1977 CTG recommended RACT for paper coating as 0.35 kilogram/liter (kg/l) (2.9 pound/gallon (lb/gal)) of coating, excluding water and exempt compounds, as applied. These recommended limits were based on the use of conventional solvent-borne coatings and oxidation of the dryer oven exhaust which achieved an overall VOC control efficiency of 81 percent. These recommended limits were expressed in terms of a compliant coating's VOC content to encourage the development and use of low-VOC content coatings. Equivalent solids-based limits were presented in ''A Guideline for Surface Coating Calculations'' (EPA–340/1–86–016). For paper coating, the equivalent limit was 0.58 kg/l (4.8 lb/gal) of solids. These equivalent limits were calculated using an assumed VOC density of 0.88 kg/l (7.36 lb/gal). This assumed VOC density is the same as that used in calculating the limits recommended in the 1977 CTG.

In 1983, EPA promulgated new source performance standards (NSPS) for pressure sensitive tape and label surface coating operations (40 CFR part 60 subpart RR).[12] The 1983 NSPS differs from the 1977 CTG in that it only applies to pressure sensitive tape and label surface coating lines. The 1983 NSPS emission limits do not apply to pressure sensitive tape and label surface coating operations that input 45 megagrams/year (Mg/yr) (50 tons per year (tpy)) or less VOC into the coating process (other requirements such as recordkeeping and reporting do apply). The 1983 NSPS requires a 90 percent reduction of VOC emission. Alternatively it establishes an emission limit of 0.20 kg VOC/kg (0.20 lb VOC/lb) solids applied based on VOC emission reduction of 90 percent.

covered by EPA's 2006 CTG for industrial cleaning solvents (71 FR 44522, 44540 (2006)). In the notice, EPA expressed its intention to address cleaning operations associated with these categories in the CTGs for these specified categories if the Agency determines that a CTG is appropriate for the respective categories.

[11] Fabric coating operations for use in pressure sensitive tape and abrasive materials are included under paper, film, and foil surface coating.

[12] The 1983 NSPS applies to sources that commenced construction, reconstruction, or modification after December 30, 1980.

In 2002, EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP): Paper and Other Web Coating (POWC), 40 CFR part 63 subpart JJJJ, which applies to paper, film, and foil surface coating as well as other coating operations. The 2002 NESHAP addresses organic hazardous air pollutant (HAP) emissions, including VOC HAP emissions, from all web coating lines at a paper, film, and foil surface coating facility.

The 2002 NESHAP has different emission limitations for sources that commenced construction or reconstruction on or before September 13, 2000 (existing sources), and sources that commenced construction or reconstruction after September 13, 2000 (new sources). The 2002 NESHAP emission limits for existing sources and new sources are based on overall HAP control efficiencies of 95 percent and 98 percent, respectively (65 FR 55334).

The 1977 CTG, the 1983 NSPS, and the 2002 NESHAP are further discussed in the current draft CTG document.

In addition to the EPA actions mentioned above, at least 44 State and several local jurisdictions have regulations that affect VOC emissions from paper, film, and foil surface coating. Fourteen local jurisdictions in California have generic surface coating rules. These generic surface coating rules regulate all machinery with the potential to emit organic compounds.

All 44 of the States and 6 of the California jurisdictions have regulations that address all or part of the paper, film, and foil surface coating industry. The regulations in these State and local jurisdictions cover the coating lines. Generally, these regulations establish emission limits and allow compliance with the limits to be demonstrated by using low-VOC content coatings or add-on control systems in conjunction with higher-VOC content coatings.

Almost all of the jurisdictions that specifically address all or part of the paper, film, and foil surface coating industry have adopted the recommended VOC emission limits in the 1977 CTG. However, there are fourteen jurisdictions that have more stringent requirements than the 1977 CTG. These jurisdictions allow compliance either using compliant coatings, or by using an add-on control system. Seven jurisdictions have VOC emission limits that are more stringent than the 1977 CTG, five in California and two in Illinois. The California jurisdictions limit VOC emissions to 265 g/l (2.2 lb/gal) of coating, excluding water and exempt compounds, as applied. The two jurisdictions in Illinois limit VOC emissions to 0.28 kg/l (2.3 lb/gal) of coating, excluding water and exempt compounds, as applied. As an alternative to the VOC emission limits the California and Illinois jurisdictions allow facilities to install capture systems and control devices to reduce VOC emissions from these coating operations. The required overall emission reduction, including capture and control efficiency, ranges from 55 percent to 90 percent. Specifically, the San Diego County Air Pollution Control District (San Diego) and the Ventura County Air Pollution Control District (Ventura) both require an overall control efficiency of 90 percent. Finally, there are seven jurisdictions that have VOC emission limits that are the same as the 1977 CTG. However, these jurisdictions require 95 percent emission reduction as an alternative to the VOC emission limit. The 95 percent overall control efficiency is the most stringent and likely can only be met with a permanent total enclosure that achieves 100 percent capture efficiency. A detailed summary of the State and local regulations is presented in the draft CTG.

Several jurisdictions in California have requirements to regulate the VOC content of cleaning materials used in the paper, film and foil surface coating industry. These regulations are aimed at reducing VOC emissions from cleaning materials by combining work practice standards with limits on the VOC content or composite vapor pressure of the solvent being used. In some cases, the jurisdictions allow the use of add-on controls as an alternative to the VOC content/vapor pressure limits. The different air pollution control authorities in California have established similar work practice standards. However, the cleaning material VOC content/vapor pressure limits vary by jurisdiction, as do the overall control efficiency required when add-on controls are used as an alternative.

There are 10 States that have cleaning material regulations that apply to paper, film, and foil surface coating operations. Of these, 9 States do not limit the VOC content/vapor pressure of cleaning materials. Instead, they have established equipment standards, work practices, and/or recordkeeping requirements. There is one State that requires work practices as well as limiting the vapor pressure of the cleaning materials. The cleaning material regulations are summarized in detail in the draft CTG.

B. Recommended Control Techniques

The draft CTG recommends certain control techniques for reducing VOC emissions from paper, film, and foil coatings and cleaning materials. As explained in the draft CTG, we are recommending these control options for facilities whose paper, film, and foil surface coating operations emit 6.8 kg VOC/day (15 lb VOC/day or 3 tons VOC/year) or more before the consideration of control. We do not recommend these control approaches for facilities that emit below this level because of the very small VOC emission reductions that can be achieved. The recommended threshold level is equivalent to the evaporation of approximately 2 gallons of solvent per day. Such a level is considered to be an incidental level of solvent usage that could be expected even in facilities that use very low-VOC content coatings, such as ultraviolet (UV) cure coatings. Furthermore, based on the 2002 NEI data and the 2004 ozone nonattainment designations, facilities emitting below the recommended threshold level collectively emit less than 2 percent of the total reported VOC emissions from paper, film, and foil coating facilities in ozone nonattainment areas. For these reasons, we did not extend our recommendations in the draft CTG to these low emitting facilities. For purposes of determining whether a facility meets the above recommended threshold, aggregate emissions from all paper, film, and foil surface coating operations and related cleaning activities at a given facility are included. This recommended threshold is also consistent with our recommendations in many previous CTGs.

We nevertheless solicit comment on the above proposed applicability threshold of the coating and cleaning recommendations in the draft CTG for paper, film, and foil coating facilities. We specifically solicit comment on whether there are small operations emitting at or immediately above the proposed threshold and how many of these facilities exist. If information is provided during the comment period indicating that there are many small operations emitting at and/or immediately above the proposed threshold, we may consider modifying the recommended threshold. We specifically solicit comment on whether a slightly higher threshold of 12.3 kg VOC/day (27 lb VOC/day or 5 tons VOC/year) would be more appropriate for this category, and we solicit data and analyses supporting such a threshold.

Coating performed on or in-line with any offset lithographic, screen, letterpress, flexographic, rotogravure, or digital printing press is not subject to the recommendations in the draft CTG. Printing, coating and laminating

performed on or in-line with such presses is addressed in other CTGs.

1. Coatings

Coatings are defined in the draft CTG as material applied onto or impregnated into a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, solvent-borne coatings, waterborne coatings, adhesives, wax coatings, wax laminations, extrusion coatings, extrusion laminations, 100 percent solid adhesives, UV cured coatings, electron beam cured coatings, hot melt coatings, and cold seal coatings. Materials used to form unsupported substrates, such as calendaring of vinyl, blown film, cast film, extruded film, and co-extruded film, are not considered coatings.

In the draft CTG, we recommend an overall VOC control efficiency of 90 percent for each paper, film, and foil surface coating line.[13] This emission reduction is based on the San Diego and Ventura levels of control, as well as the 1983 NSPS. As an alternative, we recommend VOC content based emission limits that are equivalent to 90 percent overall control. Specifically, we recommend the ''as-applied'' VOC limits of 0.40 kg VOC/kg (0.40 lb VOC/lb) solids applied and 0.08 kg VOC/kg (0.08 lb VOC/lb) coating for this product category except for pressure sensitive tape and label surface coating lines. The derivation of these limits is discussed in detail in the draft CTG.

For pressure sensitive tape and label surface coating lines, we recommend 0.20 kg VOC/kg (0.20 lb VOC/lb) solids applied, which is based on 90 percent control efficiency. We also recommend an equivalent value of 0.067 kg VOC/kg (0.067 lb VOC/lb) coating. The development of the recommended limitations is presented in more detail in the draft CTG.

2. Cleaning Materials

The draft CTG recommends work practices to reduce VOC emissions from cleaning materials used in paper, film, and foil surface coating operations. Specifically, we recommend the following work practices: (1) Store all VOC-containing cleaning materials and used shop towels in closed containers; (2) ensure that mixing and storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials; (3) minimize spills of VOC-containing cleaning materials; (4) convey VOC-containing cleaning materials from one location to another in closed containers or pipes; and (5) minimize VOC emissions from cleaning of storage, mixing, and conveying equipment.

C. Impacts of Recommended Control Techniques

Based on the 2002 NEI database, we estimate that there are a total of 474 paper, film, and foil surface coating facilities located in ozone nonattainment areas (using April 2004 designations). As previously mentioned, we are recommending the control options described in this draft CTG apply to facilities in ozone nonattainment areas that emit 6.8 kg/day (15 lb/day) or more of VOC. Based on VOC emissions data in the 2002 NEI database, 251 of the facilities in ozone nonattainment areas emit VOC at or above this level.

Although there is limited cost information available, we believe that the cost estimates and other related studies developed for the 2002 NESHAP are appropriate for estimating the cost impact of our recommendations in the draft CTG for the following reasons. The recommended level of control in the draft CTG covers the same processes as the 2002 NESHAP (*i.e.*, all coating applicators and any associated drying/curing equipment between the unwind/feed station and the rewind/cutting station). In addition, the annual costs estimates developed for the 2002 NESHAP were based on the use of thermal oxidizers to control HAP emissions and these oxidizers achieve the same level of control for VOC. Finally, both the 2002 NESHAP emission limits and the limits recommended in the draft CTG can be met by the same options (*i.e.*, use of low-VOC content coatings or add-on control systems when high-VOC content coatings are used).

According to studies performed for the development of the 2002 NESHAP, 47 percent of the existing facilities would be subject to the 2002 NESHAP. To estimate the costs associated with the add-on control recommendation in the draft CTG, we assumed that all facilities subject to the NESHAP (*i.e.*, 47 percent of the facilities in the 2002 NEI database (119 facilities)) are currently in compliance with the NESHAP. We assume that facilities already in compliance with the 2002 NESHAP would not be required to upgrade or install capture and/or thermal oxidizers to achieve the emission reduction recommended in the draft CTG and therefore would have no additional annual costs associated with the draft CTG.

We estimated that the nationwide emission reduction would be 20,000 Mg/yr (22,000 tpy) and nationwide total annual costs were $26 million per year, resulting in cost effectiveness of $1,320 per Mg ($1,200 per ton). These costs represent worst-case costs, using thermal oxidizers. Other control options (*i.e.*, carbon adsorbers or solvent recovery systems) can be expected to have lower costs.

We believe that our work practice recommendations in the draft CTG will result in a net cost savings. Implementing work practices reduce the amount cleaning materials used by reducing the amount that evaporates and is wasted.

D. Considerations in Determining Whether a CTG Will Be Substantially as Effective as a Regulation

In determining whether to issue a national rule or a CTG for the paper, film, and foil coatings product category under CAA section 183(e)(3)(C), we analyzed the four factors identified in Section I.D of this notice in light of the specific facts and circumstances associated with this product category. Based on that analysis, we propose to determine that a CTG will be substantially as effective as a rule in achieving VOC emission reductions in ozone nonattainment areas from paper, film, and foil surface coating operations.

As noted above, this section is divided into two parts, each of which addresses two of the factors relevant to the CAA section 183(e)(1)(C) determination. In the first part, we discuss our belief that the most effective means of achieving VOC emission reductions in this category is through controls at the point of use of the product (*i.e.*, through controls on the use of coatings at facilities that apply surface coatings to paper, film, and foil products), and this can only be accomplished through a CTG. We further explain that the approaches in the draft CTG are consistent with existing effective Federal, State and local VOC control strategies. In the second part, we discuss how the distribution and place of use of the products in this category also support the use of a CTG. We also discuss the likely VOC emission reductions associated with a CTG, as compared to a regulation. We further explain that there are control approaches for this category that result in significant VOC emission reductions and that such reductions could only be obtained by controlling the use of the products through a CTG. Such reductions could

[13] We are defining a paper, film, and foil surface coating line as a series of coating applicator(s), flash-off area(s), and any associated curing/drying equipment between one or more an unwind (or feed) stations and one or more rewind (or cutting) stations.

not be obtained through a regulation under CAA section 183(e) because the controls affect the end-user, which cannot be a regulated entity under CAA section 183(e)(1)(C). For these reasons, which are described more fully below, we believe that a CTG will achieve greater VOC emission reductions than a rule for this category.

1. The Most Effective Entity To Target for VOC Reductions and Consistency With State and Local VOC Strategies

To evaluate the most effective entity to target for VOC reductions, it is important to first identify the primary sources of VOC emissions. There are two main sources of VOC emissions from paper, film, and foil surface coating operations: (1) Evaporation of VOC from coatings; and (2) evaporation of VOC from cleaning materials. We address each of these sources of VOC emissions in turn below as we discuss the CTG versus regulation approach.

a. Coatings

A national rule could contain limits for the as-sold VOC content of paper, film, and foil coatings. However, given the nature of the paper, film, and foil surface coating process, we believe that such a rule would result in little reduction in VOC emissions.

Although significant amounts of low-VOC content coatings are currently being used for paper, film, and foil surface coating, they cannot replace the traditional solvent-borne coatings in some instances. Performance specifications and other functional characteristics determine the types of coatings that can be used. For example, hot-melt coatings are virtually solvent free, but cannot be used on film substrates that are sensitive to heat because the substrate could melt during the coating process. Accordingly, a national rule that requires low VOC content in paper, film, and foil coatings would nevertheless need to include higher VOC limits to allow for the use of solvent-borne materials when necessary and to maintain these materials' intended effect. Because such a rule would merely codify what the paper, film, and foil coating facilities are already doing, we do not expect that it would result in significant VOC reductions from these facilities.

Furthermore, the effect of a national rule setting low VOC content limits for paper, film, and foil coatings could be easily subverted because it does not guarantee that only those low-VOC content coating materials will be used for paper, film, and foil surface coating. Many coatings used in the paper, film, and foil surface coating industry are not specifically identified by the supplier as paper, film, and foil coatings. Therefore, these facilities can purchase and use coating materials not specified as paper, film, and foil coatings, which would effectively nullify the reformulation actions of the manufacturers and suppliers, resulting in no net change in VOC emissions in ozone nonattainment areas.

Alternatively, a national rule could set low VOC content limits for all coatings sold, regardless of specified end use, thus ensuring that only low-VOC coatings are available for paper, film, and foil surface coatings. Such an approach would be unreasonable and impractical. Coatings are sold for multiple different commercial and industrial purposes. Reducing the VOC content of all coatings would impact uses of these materials in operations other than paper, film, and foil surface coating and may inadvertently preclude the use of higher VOC containing materials in many important, legitimate contexts.

By contrast, a CTG can reach the end users of the coating materials and can therefore implement the control measures that are more likely to achieve the objective of reducing VOC emissions from this product category in ozone nonattainment areas. As previously discussed, the draft CTG recommends two VOC control options for this product category: (1) Emission limits for paper, film, and foil surface coating operations that can be achieved through the use of low-VOC content coatings; and (2) a 90 percent control efficiency for facilities that choose to use add-on controls in conjunction with high-VOC content coatings. The draft CTG also recommends work practices to reduce VOC emissions from cleaning materials. The use of low-VOC content coatings, which are available for paper, film, and foil surface coating, can greatly reduce VOC emissions. Alternatively, control devices, such as oxidizers or carbon adsorbers, can achieve a significant reduction in VOC emissions from high-VOC content materials during surface coating operations. The recommended work practices have also been shown to be effective VOC reduction measures. Given the significant reductions achievable through these recommended VOC control measures, the most effective entity to address VOC emissions associated with paper, film, and foil coatings is the facility using the coating.

These control measures are consistent with existing Federal, State and local VOC control strategies applicable to paper, film, and foil surface coating. As mentioned above, previous EPA actions and existing State and local regulations applicable to paper, film, and foil surface coating similarly call for VOC emission reduction [14] either through the use of control devices in conjunction with high-VOC content coatings or the use of equivalent low-VOC content coatings.

We cannot issue a national rule directly requiring paper, film, and foil surface coating facilities to use low-VOC content coating materials or control devices because, pursuant to CAA section 183(e)(1)(C) and (e)(3)(A), the regulated entities subject to a national rule would be the coating manufacturers and suppliers, not the paper, film, and foil surface coating facilities. By contrast, a CTG can reach these end users of paper, film, and foil coatings, and can therefore implement the measures by the users that are identified above as more likely to achieve the intended VOC emission reduction goal. Accordingly, we are including these control measures in the draft CTG that applies to paper, film, and foil surface coating facilities as the end users of these materials.

b. Cleaning Materials

There are two primary means to control VOC emissions associated with the cleaning materials used in paper, film, and foil surface coating: (1) Limiting the VOC content or vapor pressure of the cleaning materials, and (2) implementing work practices governing the use of the cleaning materials. A national rule requiring that manufacturers of cleaning materials for paper, film, and foil coating operations provide low-VOC content or low vapor pressure (*i.e.*, replace VOC that have a high vapor pressure with low vapor pressure VOC) cleaning materials would suffer from the same deficiencies noted above with regard to the coatings. Specifically, nothing in a national rule that specifically regulates manufacturers and suppliers of cleaning materials specified for use in paper, film, and foil surface coating operations would preclude the industry from purchasing bulk solvents or other multipurpose cleaning materials from other vendors. The general availability of bulk solvents or multipurpose cleaning materials from vendors that would not be subject to such regulation would directly undermine the effectiveness of such a national regulation.

A national rule also could, in theory, limit the VOC content or vapor pressure of all cleaning materials and all solvents sold regardless of specified end use,

[14] The 2002 NESHAP requires reduction of organic HAP, over 99 percent of which are VOC.

which would ensure that only low-VOC content or low vapor pressure cleaning materials are available for cleaning operations associated with paper, film, and foil surface coating. As with a low-VOC content limit on coatings, setting a low-VOC content or low vapor pressure limit for all cleaning materials and solvents would be unreasonable and impractical. Cleaning materials and solvents are sold for multiple different commercial and industrial purposes. Replacing highly volatile cleaning materials with less volatile cleaning materials and solvents would impact uses of these materials other than cleaning operations at paper, film, and foil surface coating facilities and may inadvertently preclude the use of such materials in many important, legitimate contexts.

The more effective approach for reducing VOC emissions from cleaning materials used by paper, film, and foil surface coaters is to control the use of the cleaning materials through work practices. The draft CTG recommends that paper, film, and foil surface coating facilities implement work practices to reduce VOC emissions from cleaning materials during paper, film, and foil surface coating operations. An example of an effective work practice is keeping solvents and used shop towels in closed containers. This measure alone results in significant reduction of VOC emissions from cleaning materials. Provided immediately below are examples of other effective work practices that are being required by State and local regulations. Given the significant VOC reductions achievable through implementation of work practices, we conclude that the most effective entity to address VOC emissions from cleaning materials used in paper, film, and foil surface coating operations is the facility using the cleaning materials during surface coating operations.

This recommendation is consistent with measures required by State and local jurisdictions for reducing VOC emissions from cleaning materials used in paper, film, and foil surface coating operations. In addition to keeping solvents and shop towels in closed containers, State and local requirements include: Minimizing spills of VOC-containing cleaning materials; cleaning up spills immediately; and conveying any VOC-containing cleaning materials in closed containers or pipes. Work practices have proven to be effective in reducing VOC emissions.

We cannot issue a national rule requiring such work practices for paper, film, and foil surface coating facilities because, pursuant to CAA section 183(e)(1)(C) and (e)(3)(A), the regulated entities subject to a national rule would be the cleaning materials manufactures and suppliers and not the paper, film, and foil surface coating facilities. Accordingly, we are including these work practices in the draft CTG that applies to these facilities as the end users of the cleaning materials.

Based on the nature of the paper, film, and foil surface coating process, the sources of significant VOC emissions from this process, and the available strategies for reducing such emissions, the most effective means of achieving VOC emission reductions from this product category is through controls at the point of use of the products (*i.e.*, through controls on surface coating facilities), and this can only be accomplished through a CTG. The approaches described in the draft CTG are also consistent with effective State and local VOC control strategies. These two factors alone demonstrate that a CTG will be substantially as effective as a national regulation.

2. The Product's Distribution and Place of Use and Likely VOC Emission Reductions Associated With a CTG Versus a Regulation

The factors described in the above section, taken by themselves, weigh heavily in favor of the CTG approach. The other two factors relevant to the CAA section 183(e)(3)(C) determination only further confirm that a CTG will be substantially as effective as a national regulation for paper, film, and foil coatings and cleaning materials.

First, paper, film, and foil coatings and associated cleaning materials are used at commercial facilities in specific, identifiable locations. Specifically, these materials are used in commercial facilities that coat paper, film, and foil products, as described in Section II.A. This stands in contrast to other consumer products, such as architectural coatings, that are widely distributed and used by innumerable small users (*e.g.*, individual consumers in the general public). Because the VOC emissions are occurring at commercial manufacturing facilities, implementation and enforcement of controls concerning the use of these products are feasible. Therefore, the nature of these products' place of use further counsels in favor of the CTG approach.

Second, a CTG will achieve greater emission reduction than a national rule for each source of VOC emissions from paper, film, and foil surface coating and associated cleaning materials. For the reasons described above, we believe that a national rule limiting the VOC content in coatings and cleaning materials used in paper, film, and foil surface coating operations would result in little VOC emission reduction. By contrast, a CTG can achieve significant VOC emission reductions because it can provide for the highly effective emission control strategies described above that are applicable to the end-users of the coatings and cleaning materials at paper, film, and foil surface coating facilities. Specifically, this draft CTG can provide for the use of control devices in conjunction with high VOC content coatings and work practices associated with cleaning materials. These significant VOC reductions could not be obtained through a national regulation, because they require the implementation of measures by the end-user. In addition, as previously explained, strategies that arguably could be implemented through rulemaking, such as a limit on VOC content in coatings and cleaning materials, are far more effective if implemented directly at the point of use of the product. For the reasons stated above it is more effective to control the VOC content of coatings through a CTG than through a national regulation.

Furthermore, the number of paper, film, and foil surface coating facilities affected by our recommendations in this draft CTG, as compared to the total number of such facilities in ozone nonattainment areas, does not change our conclusion that the CTG would be more effective than a rule in controlling VOC emissions for this product category. As previously mentioned, we recommend the control measures described in the draft CTG for paper, film, and foil surface coating facilities that emit 6.8 kg/day (15 lb/day) or more VOC. Based on the April 2004 ozone nonattainment designations, we estimate that 251 of the 474 paper, film, and foil surface coating facilities located in ozone nonattainment areas emit 6.8 kg/day (15 lb/day) or more and are therefore addressed by our recommendations in the draft CTG. There are 223 paper, film, and foil surface coating facilities that would not be covered by the recommendations in the draft CTG. According to the 2002 NEI database, these 223 facilities collectively emitted less than 150 Mg/yr (170 tpy), which is less than 2 percent of the total VOC reported emissions (an average of 0.68 Mg/yr (0.75 tpy) per facility) in ozone nonattainment areas. The CTG thus addresses 98 percent of the VOC emissions from these paper, film, and foil surface coating facilities in ozone nonattainment areas, which further supports our conclusion that a

CTG is more likely to achieve the intended VOC emission reduction goal for this product category than a national rule.

Upon considering the above factors in light of the facts and circumstances associated with this product category, we propose to determine that a CTG for paper, film, and foil coatings and cleaning materials will be substantially as effective as a national regulation.

III. Metal Furniture Coatings

A. Industry Characterization

1. Source Category Description

This category of consumer and commercial products includes the coatings that are applied to metal furniture surfaces at facilities that manufacture metal furniture. Metal furniture includes household, office, institutional, laboratory, hospital, public building, restaurant, barber and beauty shop, and dental furniture, as well as components of these products. Metal furniture also includes office and store fixtures, partitions, shelving, lockers, lamps and lighting fixtures, and wastebaskets. Metal furniture coatings include paints and adhesives, and are typically applied without a primer. Higher solids and powder coatings are used extensively in the metal furniture industry. Metal furniture coatings provide a covering, finish, or functional or protective layer, and also provide a decorative finish to metal furniture.

2. Processes, Sources of VOC Emissions, and Controls

The VOC emissions from metal furniture surface coating operations are a result of evaporation of the VOC contained in many of the coatings and cleaning materials [15] used in these operations. The primary VOC emissions from metal furniture coatings occur during coating application, flash-off, and coating drying/curing. The remaining emissions are primarily from mixing and thinning of the coatings, and evaporation of the VOC contained in the cleaning materials during cleaning activities, such as spray gun cleaning, paint line flushing, rework operations, and touchup cleaning at final assembly. VOC emissions from surface preparation (where metal furniture components and products are treated and/or cleaned prior to coating application), coating storage and handling, and waste/wastewater operations (*i.e.*, handling waste/wastewater that may contain residues from both coatings and cleaning materials) are small.

As previously mentioned, some VOC emissions occur during mixing and thinning operations. These VOC emissions occur from displacement of VOC-laden air in containers used to mix coatings before coating application. The displacement of VOC-laden air can occur during the filling of containers. It can also be caused by changes in temperature or barometric pressure, or by agitation during mixing.

The majority of VOC emissions occur from evaporation of solvents during coating application. The transfer efficiency (the percent of coating solids deposited on the metal furniture component or product) of a coating application method affects the amount of VOC emissions during coating application. The more efficient a coating application method is in transferring coatings to the metal furniture component or product, the lower the volume of coatings (and therefore solvents) needed per given amount of production, thus resulting in lower VOC emissions.

The coatings used in the metal furniture surface coating industry may be in the form of a liquid or powder, and may be applied by means of spray or dip coating. Conventional air atomized spray application systems utilize higher atomizing air pressure and typically have transfer efficiencies ranging between 25 and 40 percent. Dip coating is the immersion of metal furniture components or products into a coating bath and is typically used on parts that do not require high quality appearance. The transfer efficiency of a dip coater is very high (approximately 90 percent); however, some VOC is emitted from the liquid coating bath due to its large exposed surface area.

Most spray applied coatings are electrostatically applied. In electrostatic coating, the presence of an electrostatic field creates an electrical attraction between the paint, which is positively charged, and the grounded metal furniture component or product and enhances the amount of coating deposited on the surface. This coating method is more efficient than conventional air atomized spray, with transfer efficiency typically ranging from 60 to 90 percent.

Other coatings application methods used in the metal furniture surface coating industry include flow coating, roll coating, high volume/low pressure (HVLP) spray, electrocoating, autophoretic coating, and application of coatings by hand. These coating methods are described in more detail in the draft CTG.

The coated metal furniture components and products are usually baked or cured in heated drying ovens, but some are air dried. For liquid spray and dip coating operations, the coated components or products are typically first moved through a flash-off area after the coating application operation. The flash-off area, which lies between the coating application area and the oven, allows solvents in the wet coating film to evaporate slowly, thus avoiding bubbling of the coating while it is curing in the oven. The amount of VOC emitted from the flash-off area depends on the type of coating used, the speed of the coating line (*i.e.*, how quickly the component or product moves through the flash-off area), and the distance between the application area and bake oven.

After the flash-off area, the metal furniture components or products are usually cured or dried. For powder coatings, the curing/drying step melts the powder and forms a continuous coating on the component or product. For liquid coatings, this step removes any remaining volatiles from the coating. The cured coatings provide the desired decorative and/or protective characteristics. The VOC emissions during the curing/drying process result from the evaporation of the remaining solvents in the dryer.

Until the late 1970's, conventional solvent-borne coatings were used in the metal furniture surface coating industry. Since then, the industry has steadily moved towards alternative coating formulations that eliminate or reduce the amount of solvent in the formulations, thus reducing VOC emissions per unit amount of coating solids used.

Currently the metal furniture surface coating industry uses primarily higher solids solvent-borne coatings and powder coatings and applies them by electrostatic spraying. This combination of coating type and application method is an effective measure for reducing VOC emissions. Not only are VOC emissions reduced by using coatings with low VOC content, the use of an application method with a high transfer efficiency, such as electrostatic spraying, lowers the volume of coatings needed per given amount of production, thus further reducing the amount of VOC emitted during the coating application.

Other alternative coatings include waterborne coatings and UV cured

[15] In a previous notice, EPA identified specific categories, including metal furniture coating, the cleaning operations of which would not be covered by EPA's 2006 CTG for industrial cleaning solvents (71 FR 44522 and 44540, October 5, 2006). In the notice, EPA expressed its intention to address cleaning operations associated with these categories in the CTGs for these specified categories if the Agency determines that a CTG is appropriate for the respective categories.

coatings. These coatings are described in more detail in the CTG.

The most common approach to reduce emission from metal furniture coating operations is to use low-VOC content coatings, including powder coatings, higher solids solvent-borne coatings, and UV cured coatings. Add-on controls may also be used to reduce VOC emissions from metal furniture coating operations. The majority of VOC emissions from spray coating operations occur in the spray booth. The volume of air exhausted from a spray booth is typically high and the VOC concentration in spray booth exhaust is typically low. The cost of controlling VOC in spray booth exhaust is therefore greater than the cost of using low-VOC content coatings. The wide availability and lower cost of low-VOC content coatings makes them a more attractive option than add-on controls. For those situations where an add-on control device is used, thermal oxidation and carbon adsorption are most widely used. Please see the draft CTG for a detailed discussion of these and other available control devices.

To control VOC emissions from containers used to store VOC-containing solvents or to mix coatings containing VOC solvents, work practices (*e.g.*, using closed storage containers) are used throughout the metal furniture surface coating industry.

As previously mentioned, another source of VOC emissions from metal furniture surface coating is cleaning materials. The VOC are emitted when solvents evaporate from the cleaning materials. Cleaning materials are used for several purposes, including the removal of coating residue or other unwanted materials from equipment related to the coating operations, as well as the cleaning of spray guns, transfer lines (*e.g.*, tubing or piping), tanks, and the interior of spray booths. These cleaning materials are typically mixtures of organic solvents. Work practices are widely used throughout the metal furniture surface coating industry as a means of reducing VOC emissions from these types of cleaning operations. These measures include covering mixing tanks, storing solvents and solvent soaked rags and wipes in closed containers, and cleaning spray guns in an enclosed system. Another means of reducing VOC emissions from cleaning operations associated with surface coating operations is the use of low-VOC content or low vapor pressure cleaning materials. However, little information is available regarding the effectiveness of the use of these types of cleaning materials to reduce VOC emissions in the metal furniture surface coating industry.

3. Existing Federal, State, and Local VOC Control Strategies

There are three previous EPA actions that affect metal furniture surface coating operations. In 1977, EPA issued a CTG document entitled ''Control of Volatile Organic Emissions from Existing Stationary Sources Volume III: Surface Coating of Metal Furniture'' (EPA–450/2–77–032) (1977 CTG) that provided RACT recommendations for controlling VOC emissions from metal furniture surface coating operations. The 1977 CTG addresses VOC emissions from metal furniture coating lines, which include the coating application area, the flash-off area, and the drying/curing ovens. The 1977 CTG recommended RACT for metal furniture surface coating operations as 0.36 kg VOC/l (3.0 lb/gal) of coating, excluding water and exempt compounds, as applied. This recommendation was derived using an assumed VOC density of 0.88 kg/l (7.36 lb/gal). The recommended limit represents a higher solids solvent-borne coating with approximately 59 percent volume solids and is equivalent to 0.61 kg VOC/l (5.1 lb VOC/gal) coating solids (the 1977 CTG-equivalent limit). This equates to an 81 percent reduction of VOC emissions from a conventional high-VOC content solvent-borne coating.

In 1982, EPA promulgated the metal furniture surface coating NSPS) (40 CFR part 60 subpart EE.[16] The 1982 NSPS is similar to the 1977 CTG in that it applies to metal furniture surface coating operations which include the coating application station, the flash-off area, and the drying/curing oven. In contrast to the 1977 CTG, metal furniture surface coating operations that use less than 3,842 l/yr (1,015 gal/yr) of coating as-applied, are not subject to the emission limits (other requirements, such as recordkeeping and reporting, in the 1982 NSPS do apply). The 1982 NSPS VOC limit is 0.90 kg VOC/l (7.5 lb VOC/gal) coating solids deposited. Because the 1982 NSPS limit is in terms of coating solids deposited and the 1977 CTG-equivalent limit is in terms of coating solids used, these limits cannot be compared directly. During the implementation of the 1977 CTG, a baseline transfer efficiency of 60 percent (*i.e.*, 0.60 volume of solids deposited per unit volume of solids used) was used to express the CTG-equivalent limit on a solids deposited basis. The CTG-equivalent limit on a solids deposited basis is 1.01 kg VOC/l (8.4 lb VOC/gal) coating solids deposited. The 1982 NSPS limit is more stringent than the 1977 CTG-equivalent limit on a solids deposited basis.

In 2003, EPA promulgated the National Emissions Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture, 40 CFR part 63, subpart RRRR, which applies to metal furniture surface coating operations. The 2003 NESHAP addresses organic HAP emissions, including VOC HAP emissions, from all activities at a facility that involve coatings, thinners, and cleaning materials used in metal furniture surface coating operations. The areas covered by the 2003 NESHAP include: Coating operations; vessels used for storage and mixing of coatings, thinners, and cleaning materials; equipment, containers, pipes and pumps used for conveying coatings, thinners, and cleaning materials; and storage vessels, pumps and piping, and conveying equipment and containers used for waste materials.

The 2003 NESHAP imposes an organic HAP emission limitation for sources that commenced construction on or before April 24, 2002 (existing sources), of 0.10 kg organic HAP/l (0.83 lb organic HAP/gal) of coating solids used. For sources that commenced construction after April 24, 2002 (new sources) the 2003 NESHAP prohibits organic HAP emissions. The 2003 NESHAP also specifies work practices to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in and waste materials generated by the coating operation.

In addition to the EPA actions mentioned above, at least 36 States and several local jurisdictions have specific regulations that control VOC emissions from metal furniture surface coating operations. Almost all of the jurisdictions that specifically address metal furniture coatings have adopted the emission limit recommended in the 1977 CTG. The California Bay Area Air Quality Management District (Bay Area), however, has adopted more stringent limits. The Bay Area has established two VOC emission limits for metal furniture surface coatings: (1) 275 g VOC/l (2.3 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for baked coating; and (2) 340 g VOC/l (2.8 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for air-dried coating. Under the Bay Area regulation, metal furniture surface coating facilities must use coatings that

[16] The 1982 NSPS applies to sources that commenced construction, reconstruction, or modification after November 28, 1980.

comply with the VOC emission limit or as an alternative to using low-VOC content coatings, the facility may choose to install add-on controls. If add-on controls are used, the Bay Area requires that the VOC emissions generated by all sources of VOC emissions (*i.e.*, the coating line) are reduced by at least 85 percent. The Bay Area's emission limit for air dried coating is also more stringent than the 1977 CTG recommended limit. In addition, its rule requires the use of coating application equipment that can meet a 65 percent or greater transfer efficiency. Compliance with the standard's 65 percent or greater transfer efficiency can be achieved by properly operated electrostatic application or HVLP spray, flow coat, roller coat, dip coat including electrodeposition, and brush coat.

Like the Bay Area's limits the VOC emission limits established by the South Coast Air Quality Management District (South Coast) for the coating of metal parts and products (which includes metal furniture using a baked general multi-component coating) are: (1) 275 g VOC/l (2.3 lb VOC/gal) coating, excluding water and exempt compounds, as applied, for baked coating; and (2) 340 g VOC/l (2.8 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for air-dried coating. In addition to the VOC emission limits, the South Coast regulation specifies the use of the following application methods: Electrostatic application, flow coat, dip coat, roll coat, HVLP spray, hand application methods, or other coating application method capable of achieving a transfer efficiency equivalent or better than that achieved by HVLP spraying. As an alternative to the VOC emission limit and specified operating equipment, the South Coast regulation allows metal furniture facilities to choose to install emission capture systems and add-on control devices. The South Coast regulation requires that if a facility chooses the capture and add-on control device alternative, 90 percent of the VOC emissions must be captured and the add-on control device must have a control efficiency of 95 percent.

Several jurisdictions in California have requirements to regulate the VOC content of cleaning materials used in the metal furniture surface coating industry. These regulations are aimed at reducing VOC emissions from cleaning materials by combining work practice standards with limits on the VOC content or composite vapor pressure of the solvent being used. In some cases, the jurisdictions allow the use of add-on controls as an alternative to the VOC content/vapor pressure limits. The different air pollution control authorities in California have established similar work practice standards. However, the cleaning material VOC content/vapor pressure limits vary by jurisdiction, as do the overall control efficiency required when add-on controls are used as an alternative.

There are ten States that have cleaning material regulations that apply to metal furniture surface coating operations. Of these, nine States do not limit the VOC content/vapor pressure of cleaning materials. Instead, they have established equipment standards, work practices, and/or recordkeeping requirements. There is one State that requires work practices as well as limiting the vapor pressure of the cleaning materials.

B. Recommended Control Techniques

The draft CTG recommends certain control techniques for reducing VOC emissions from metal furniture coatings and cleaning materials. As explained in the draft CTG, we are recommending these control options for the metal furniture surface coating operations that emit 6.8 kg VOC/day (15 lb VOC/day or 3 tons/year) or more before consideration of control. We do not recommend these control approaches for facilities that emit below this level because of the very small VOC emission reductions that can be achieved. The recommended threshold level is equivalent to the evaporation of approximately 2 gallons of solvent per day. Such a level is considered to be an incidental level of solvent usage that could be expected even in facilities that use very low-VOC content coatings, such as powder or UV cure coatings. Furthermore, based on the 2002 NEI data and the 2004 ozone nonattainment designations, facilities emitting below the recommended threshold level collectively emit less than 4 percent of the total reported VOC emissions from metal furniture surface coating facilities in ozone nonattainment areas. For these reasons, we did not extend our recommendations in the draft CTG to these low emitting facilities. This recommended threshold is also consistent with our recommendations in many previous CTGs.

For purposes of determining whether a facility meets the 6.8-kg/day (15-lb/day) threshold, aggregate emissions from all metal furniture surface coating operations and related cleaning activities at a given facility are included.

1. Coatings

The draft CTG provides flexibility by recommending two options for controlling VOC emissions from coatings: (1) An emission limit that can be achieved through the use of low-VOC content coatings; or (2) an overall control efficiency of 90 percent for facilities that choose to use add-on controls instead of low-VOC content coating. Specifically, the low-VOC content coatings recommendation includes a limit of 0.275 kg VOC/l (2.3 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, and the use of the following application methods: Electrostatic spray, HVLP spray, flow coat, roller coat, dip coat including electrodeposition, brush coat, or other coating application method capable of achieving a transfer efficiency equivalent or better than that achieved by HVLP spraying. As an alternative to using low-VOC content coatings, a facility could choose to use combinations of capture and add-on control equipment to meet an overall control efficiency of 90 percent.

Furthermore, the draft CTG recommends work practices to control VOC emissions from metal furniture surface coating-related activities. The draft CTG recommends that these work practices include the following: (1) Store all VOC-containing coatings, thinners, and coating-related waste materials in closed containers; (2) ensure that mixing and storage containers used for VOC-containing coatings, thinners, and coating-related waste materials are kept closed at all times except when depositing or removing these materials; (3) minimize spills of VOC-containing coatings, thinners, and coating-related waste materials; and (4) convey coatings, thinners and coating-related waste materials from one location to another in closed containers or pipes.

2. Cleaning Materials

The draft CTG recommends work practices to reduce VOC emissions from cleaning materials used in metal furniture surface coating operations. The draft CTG recommends that, at a minimum, these work practices include the following: (1) Store all VOC-containing cleaning materials and used shop towels in closed containers; (2) ensure that mixing and storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials; (3) minimize spills of VOC-containing cleaning materials; (4) convey cleaning materials from one location to another in closed containers or pipes; and (5) minimize VOC emissions from cleaning of storage, mixing, and conveying equipment.

C. Impacts of Recommended Control Techniques

Based on the 2002 NEI database, we estimate that there are a total of 456 metal furniture facilities in the U.S. Using the April 2004 ozone nonattainment designations, we estimated that a total of 289 of these facilities are in ozone nonattainment areas. Based on the 2002 NEI VOC emissions data, 143 of the 289 facilities in ozone nonattainment areas emitted VOC at or above the recommended 6.8-kg/day (15-lb/day) VOC emissions applicability threshold. According to the 2002 NEI, these 143 facilities, in aggregate, emit about 3,100 Megagrams per year (Mg/yr) (3,400 tons per year (tpy)) of VOC per year, or an average of about 21 Mg/yr (23 tpy) of VOC per facility.

As previously mentioned, the draft CTG recommends either the use of low-VOC content coatings with specified application methods or optional add-on control technology. Both recommendations also include certain work practices to further reduce emission from coatings, as well as controlling VOC emissions from cleaning materials. Because the industry is already using predominantly low-VOC content coatings, such as powder coatings, we have estimated the total annual costs to be approximately $240,500. Since these recommended measures are expected to result in a VOC emissions reduction of 1855 Mg/yr (2040 tpy), the cost-effectiveness is estimated to be $130/Mg ($118/ton). The impacts are further discussed in the draft CTG document.

The draft CTG also recommends work practices for reducing VOC emissions from both coatings and cleaning materials. We believe that our work practice recommendations in the draft CTG will result in a net cost savings. Implementing work practices reduce the amount of cleaning materials used by decreasing the amount that evaporates and is wasted.

D. Considerations in Determining Whether a CTG Will Be Substantially as Effective as a Regulation

In determining whether to issue a national rule or a CTG for the product category of metal furniture coatings under CAA section 183(e)(3)(C), we analyzed the four factors identified above in Section I.D in light of the specific facts and circumstances associated with this product category. Based on that analysis, we propose to determine that a CTG will be substantially as effective as a rule in achieving VOC emission reductions in ozone nonattainment areas from metal furniture surface coating operations.

As noted above, this section is divided into two parts. In the first part, we discuss our belief that the most effective means of achieving VOC emission reductions in this category is through controls at the point of use of the product, (i.e., through controls on the use of coating and cleaning materials at metal furniture surface coating facilities), and this can only be accomplished through a CTG. We further explain that the recommended approaches in the draft CTG are consistent with existing effective EPA, State, and local VOC control strategies. In the second part, we discuss how the distribution and place of use of the products in this category also support the use of a CTG. We also discuss the likely VOC emission reductions associated with a CTG, as compared to a regulation. We further explain that there are control approaches for this category that result in significant VOC emission reductions and that such reductions could only be obtained by controlling the use of the products through a CTG. Such reductions could not be obtained through a regulation under CAA section 183(e) because the controls affect the end-user, which is not a regulated entity under CAA section 183(e)(1)(C). For these reasons, which are described more fully below, we believe that a CTG will achieve greater VOC emission reductions than a rule for this category.

1. The Most Effective Entity To Target for VOC Reductions and Consistency With Existing Federal, State, and Local VOC Strategies

To evaluate the most effective entity to target for VOC reductions, it is important first to identify the primary sources of VOC emissions. There are two main sources of VOC emissions from metal furniture coating: (1) Evaporation of VOC from coatings; and (2) evaporation of VOC from cleaning materials. We address each of these sources of VOC emissions, in turn, below, as we discuss the CTG versus regulation approach.

a. Coatings

A national rule could contain limits for the as-sold VOC content of metal furniture coatings. However, given the nature of the metal furniture surface coating process, we believe that such a rule would result in little reduction in VOC emissions.

Although the metal furniture surface coating industry currently uses primarily low-VOC content coatings (such as high solids and powder coatings), these low-VOC content coatings cannot replace the traditional solvent-borne coatings in some instances. Specialized appearance and other functional characteristics determine the types of coatings that can be used. For example, some products (e.g., recliner mechanisms) require a thin dried film thickness that can only be achieved using solvent-borne coatings. Accordingly, a national rule that requires low VOC content in metal furniture surface coatings would nevertheless need to include higher VOC limits to allow for the use of solvent-borne coatings when necessary and to maintain these materials' intended effect. Because such a rule would merely codify what the metal furniture surface coating facilities are already doing, we do not expect that it would result in significant reductions from these facilities.

Furthermore, the effect of a national rule setting low VOC content limits for metal furniture coatings could be easily subverted because it does not guarantee that only those low-VOC content coating materials will be used for metal furniture surface coating. Many coatings used in metal furniture surface coating are not specifically identified by the supplier as metal furniture coatings. Therefore, these facilities can purchase and use coating materials not specified as metal furniture coatings, which would effective nullify the reformulation actions of the manufacturers and suppliers, resulting in no net change in VOC emissions in ozone nonattainment areas.

Alternatively, a national rule could set low VOC content limits for all coatings sold, regardless of specified end use, thus ensuring that only low-VOC materials are available for metal furniture surface coating. Such an approach would be unreasonable and impractical. Coatings are sold for multiple different commercial and industrial purposes. Reducing the VOC content of all coatings would impact uses of these materials in operations other than metal furniture surface coating and may inadvertently preclude the use of higher VOC containing materials in many important, legitimate contexts.

By contrast, a CTG can reach the end users of the coating materials and can therefore implement the control measures that are more likely to achieve the objective of reducing VOC emissions from this product category in ozone nonattainment areas. As previously discussed, the draft CTG recommends an emission limit for metal furniture surface coating operations that can be achieved through the use of low-VOC

content coatings, and specific application methods. Alternatively, the draft CTG recommends an overall 90 percent control efficiency should a facility choose to use add-on controls in conjunction with high-VOC content coatings. In addition, both recommendations in the draft CTG include work practices to further reduce VOC emissions from coatings as well as controlling VOC emissions from cleaning materials. The use of low-VOC content coatings, which are available for metal furniture surface coating, can greatly reduce VOC emissions. Alternatively, control devices, such as thermal oxidizers, catalytic oxidizers, or carbon adsorbers, can achieve a significant reduction in VOC emissions from high-VOC content coatings. The recommended work practices and application methods have also been shown to be effective VOC reduction measures. Given the significant reductions achievable through the use of these recommended control measures, the most effective entity to address VOC emissions from metal furniture coatings is the facility using the coating.

These control measures are consistent with existing EPA, State, and local VOC control strategies applicable to metal furniture surface coating. As mentioned above, previous EPA actions and existing State and local regulations (in particular, the majority of the California jurisdictions) that address metal furniture surface coating similarly call for VOC emission reduction either through the use of control devices in conjunction with high-VOC content coating materials or the use of equivalent low-VOC content coating materials; some also include work practices and specific application methods.

We cannot, however, issue a national rule directly requiring metal furniture surface coating facilities to use low-VOC content coatings, control devices or specific application methods, or to implement work practices to reduce VOC emissions because, pursuant to CAA section 183(e)(1)(C) and (e)(3)(A), the regulated entities subject to a national rule would be the coating manufacturers and suppliers, not the metal furniture surface coating facilities. By contrast, a CTG can reach the end users of the metal furniture coatings, and can therefore implement the measures by the users that are identified above as more likely to achieve the intended VOC emission reduction goal. Accordingly, we are including these recommended control measures in the draft CTG that applies to metal furniture surface coatings facilities as the end users of the coating materials.

b. Cleaning Materials

There are two primary means to control VOC emissions associated with the cleaning materials used in the metal furniture surface coating process: (1) Limiting the VOC content or VOC vapor pressure of the cleaning materials, and (2) implementing work practices governing the use of the cleaning materials. A national rule requiring that manufacturers of cleaning materials for metal furniture coating operations provide low-VOC content or low vapor pressure (*i.e.*, replacing VOC that have a high vapor pressure with low vapor pressure VOC) cleaning materials would suffer from the same deficiencies noted above with regard to the coatings. Specifically, nothing in a national rule that specifically regulates manufacturers and suppliers of cleaning materials specified for use in metal furniture surface coating operations would preclude the metal furniture surface coating industry from purchasing bulk solvents or other multipurpose cleaning materials from other vendors. The general availability of bulk solvents or multipurpose cleaning materials from vendors that would not be subject to such regulation would directly undermine the effectiveness of such a national regulation.

A national rule also could, in theory, limit the VOC content or vapor pressure of all cleaning materials and all solvents sold regardless of specified end use, which would ensure that only low-VOC content or low vapor pressure cleaning materials are available for cleaning operations associated with metal furniture surface coating. As with a low-VOC content limit on coatings, setting a low-VOC content or a low vapor pressure limit for all cleaning materials and solvents would be unreasonable and impractical. Cleaning materials and solvents are sold for multiple different commercial and industrial purposes. Replacing highly volatile cleaning materials and solvents would impact uses of these materials other than cleaning operations at metal furniture surface coating facilities and may inadvertently preclude the use of such materials in many important, legitimate contexts.

The more effective approach for reducing VOC emissions from cleaning materials used by metal furniture surface coaters is to control the use of cleaning materials through work practices. The draft CTG recommends that metal furniture surface coating facilities implement work practices to reduce VOC emissions from cleaning materials during metal furniture surface coating operations. An example of an effective work practice is keeping solvents and used shop towels in closed containers. This measure alone can significantly reduce VOC emissions from cleaning materials. Provided immediately below are examples of other effective work practices that are being required by State and local regulations. Given the significant VOC reductions achievable through the implementation of work practices, we conclude that the most effective entity to address VOC emission from cleaning materials used in metal furniture surface coating operations is the facility using the cleaning materials during surface coating operations.

This recommendation is consistent with measures required by State and local jurisdictions for reducing VOC emissions from cleaning materials used in metal furniture surface coating operations. In addition to keeping solvents and shop towels in closed containers, State and local requirements include: Minimizing spills of VOC-containing cleaning materials; cleaning up spills immediately; and conveying any VOC-containing cleaning materials in closed containers or pipes. Work practices have proven to be effective in reducing VOC emissions.

We cannot, however, issue a rule requiring such work practices for metal furniture surface coating facilities because, pursuant to CAA section 183(e)(1)(C) and (e)(3)(A), the regulated entities subject to a national rule would be the cleaning materials manufactures and suppliers and not the metal furniture surface coating facilities. Accordingly, we are including these work practices in the draft CTG that applies to metal furniture surface coating facilities as the end users of the cleaning materials.

Based on the nature of the metal furniture surface coating process, the sources of significant VOC emissions from this process, and the available strategies for reducing such emissions, the most effective means of achieving VOC emission reductions from this product category is through controls at the point of use of the products, (*i.e.*, through controls on metal furniture surface coaters), and this can only be accomplished through a CTG. The recommended approaches described in the draft CTG are also consistent with effective existing EPA, State, and local VOC control strategies for metal furniture surface coating operations. These two factors alone demonstrate that a CTG will be substantially as effective as a national regulation.

2. The Product's Distribution and Place of Use and Likely VOC Emission Reductions Associated With a CTG Versus a Regulation

The factors described in the above section, taken by themselves, weigh heavily in favor of the CTG approach. The other two factors relevant to the CAA section 183(e)(3)(C) determination only further confirm that a CTG will be substantially as effective as a national regulation for metal furniture coatings.

First, metal furniture coatings and associated cleaning materials are used at commercial facilities in specific, identifiable locations. Specifically, these materials are used in commercial facilities that apply surface coating to metal furniture as described in section III.A. This stands in contrast to other consumer products, such as architectural coatings, that are widely distributed and used by innumerable small users (*e.g.*, individual consumers in the general public). Because the VOC emissions are occurring at commercial manufacturing facilities, implementation and enforcement of controls concerning the use of these products are feasible. Therefore the nature of the products' place of use further counsels in favor of the CTG approach.

Second, a CTG will achieve greater emission reduction than a national rule for each source of VOC emissions from metal furniture coating and associated cleaning materials. For the reasons described above, we believe that a national rule limiting the VOC content in coatings and cleaning materials used in metal furniture surface coating operations would result in little VOC emissions reduction. By contrast, a CTG can achieve significant VOC emissions reduction because it can provide for the highly effective emission control strategies described above that are applicable to the end-users of the coatings and cleaning materials at metal furniture surface coating facilities. Specifically, the draft CTG can provide for the use of control devices in conjunction with high-VOC content coatings, specific application methods, and work practices. These significant VOC reductions could not be obtained through a national regulation, because they require the implementation of measures by the end-user. In addition, as previously explained, strategies that arguably could be implemented through rulemaking, such as a limit on VOC content in coatings and cleaning materials, are far more effective if implemented directly at the point of use of the product. For the reasons stated above, it is more effective to control the VOC content of coatings and cleaning materials used for metal furniture surface coating through a CTG than through a national regulation.

Furthermore, the number of metal furniture surface coating facilities affected by our recommendations in this draft CTG, as compared to the total number of such facilities in ozone nonattainment areas, does not affect our conclusion that the CTG would be substantially more effective than a rule in controlling VOC emissions for this product category. As previously mentioned, we recommend the control measures described in the draft CTG for metal furniture surface coating facilities that emit 6.8 kg/day (15 lb/day) or more VOC. Based on the April 2004 ozone nonattainment designations, we estimate that 143 of the 289 metal furniture surface coating facilities located in ozone nonattainment areas emit 6.8 kg/day (15 lb/day) or more and are therefore addressed by our recommendations in the draft CTG. There are 146 metal furniture surface coating facilities that would not be covered by the recommendations in the draft CTG. According to the 2002 NEI database, these 146 facilities collectively emitted less than 103 Mg/yr (115 tpy), which is less than 4 percent of the total reported VOC (an average of 0.71 Mg/yr (0.78 tpy) per facility) in ozone nonattainment areas. The fact that the CTG addresses more than 96 percent of the VOC emissions from metal furniture surface coating facilities in an ozone nonattainment area further supports our conclusion that a CTG is more likely to achieve the intended VOC emission reduction goal for this product category than a national rule.

Upon considering the above factors in light of the facts and circumstances associated with this product category, we propose to determine that a CTG for metal furniture coatings will be substantially as effective as a national regulation.

IV. Large Appliances Coatings

A. Industry Characterization

1. Source Category Description

This category of consumer and commercial products includes the coatings that are applied to the surfaces of large appliances parts and products at facilities that manufacture or assemble large appliances. Large appliances coatings include, but are not limited to, primers, basecoats, topcoats, and adhesives used in the manufacture of large appliance parts or products. A large appliance part is defined as any organic surface-coated metal lid, door, casing, panel, or other interior or exterior metal part or accessory that is assembled to form a large appliance product. A large appliance product is defined as any organic surface-coated metal range, oven, microwave oven, refrigerator, freezer, washer, dryer, dishwasher, water heater, trash compactor, or any other large appliance or equipment manufactured for household, commercial, or recreational use. The coatings provide a protective and/or decorative layer to the surface of large appliance products.

2. Processes, Sources of VOC Emissions, and Controls

VOC emissions from large appliance surface coating operations result from the evaporation of VOC contained in many of the coatings or used as cleaning materials.[17] The primary VOC emissions from large appliances coatings occur during coating application (prime, single or topcoat application), flash-off, and drying/curing of the coatings. Some emissions also occur during mixing or thinning of the coatings. The primary VOC emissions from the cleaning materials occur during cleaning operations. VOC emissions from surface preparation (*i.e.*, wiping with cleaning materials), storage and handling of coatings and cleaning materials, and waste/wastewater operations (*i.e.* handling waste/wastewater that may contain residues from both coatings and cleaning materials) are small.

VOC emissions from mixing and/or thinning of the coatings occur from displacement of organic vapor-laden air in containers used to mix coatings containing solvents (thinners) prior to coating applications. The displacement of vapor-laden air can occur during the filling of containers and can also be caused by changes in temperature or barometric pressure, or by agitation during mixing.

The majority of VOC emissions occur from evaporation of solvents during coating application. The transfer efficiency (the percent of coating solids deposited on the large appliance part or product) of a coating application method affects the amount of VOC emissions during coating application. The more efficient a coating application method is in transferring coatings to the large appliance part or product, the

[17] In a previous notice, EPA stated that the cleaning operations associated with certain specified section 183(e) consumer and commercial product categories, including large appliances coatings, would not be covered by EPA's 2006 CTG for industrial cleaning solvents. 71 Fed. Reg. 44522, 44540 (2006). In that notice, EPA expressed its intention to address cleaning operations associated with these categories in the CTGs for these specific categories if the Agency determines that a CTG is appropriate for a respective category.

lower the volume of coatings (and therefore solvents) needed per given amount of production, thus resulting in lower VOC emissions.

Most spray applied coatings are electrostatically applied. In electrostatic coating, the presence of an electrostatic field creates an electrical attraction between the paint, which is positively charged, and the grounded metal furniture component or product and enhances the amount of coating deposited on the surface. This coating method is more efficient than conventional air atomized spray, with transfer efficiency typically ranging from 60 to 90 percent.

Other coatings application methods used in the large appliance surface coating industry include flow coating, roll coating, high volume/low pressure (HVLP) spray, electrocoating, autophoretic coating, and application of coatings by hand. These coating methods are described in more detail in the draft CTG.

In typical liquid spray and dip coating operations, the coated parts/products move from the coating application area through a flash-off area, where solvents in the wet coating film evaporate slowly, thus avoiding bubbling of the coating while it is curing in the oven. After being coated by any of the typical coating operations, large appliance parts and products are dried and cured using heated dryers or by air drying. This step removes any remaining volatiles from the coatings so that the surfaces of the large appliance parts and products meet the hardness, durability, and appearance requirements of customers.

Until the late 1970's, the large appliances industry used conventional solvent-borne coatings almost exclusively. Since then, the industry has steadily moved towards alternative coating formulations that eliminate or reduce the amount of solvent in the formulations, thus reducing VOC emissions per unit amount of coating solids used.

Currently the large appliance surface coating industry uses primarily higher solids solvent-borne coatings and powder coatings and applies them by electrostatic spraying. This combination of coating type and application method is an effective measure for reducing VOC emissions. Not only are VOC emissions reduced by using coatings with low VOC content, the use of an application method with a high transfer efficiency, such as electrostatic spraying, lowers the volume of coatings needed per given amount of production, thus further reducing the amount of VOC emitted during the coating application.

Other alternative coatings include waterborne coatings and UV cured coatings. These coatings are described in more detail in the CTG.

The most common approach to reduce emissions from large appliance coating operations is to use low-VOC content coatings, including powder coatings, higher solids solvent-borne coatings, waterborne coatings and UV cured coatings. Add-on controls may also be used to reduce VOC emissions from large appliance coating operations. The majority of VOC emissions from spray coating operations occur in the spray booth. The volume of air exhausted from a spray booth is typically high and the VOC concentration in spray booth exhaust is typically low. The cost of controlling VOC in spray booth exhaust is therefore greater than the cost of using low-VOC content coatings. The wide availability and lower cost of low-VOC content coatings makes them a more attractive option than add-on controls. For those situations where an add-on control device is used, thermal oxidation and carbon adsorption are most widely used. Please see the draft CTG for a detailed discussion of these and other available control devices. As previously mentioned, another main source of VOC emissions from large appliances coating is the cleaning materials. The VOC are emitted when solvents that are used as cleaning materials evaporate. Cleaning materials are used for several purposes, including the removal of coating residue or other unwanted materials from coating operations equipment, such as spray guns, transfer lines (*e.g.*, tubing or piping), tanks, and the interior of spray booths. These cleaning materials are typically VOC solvents such as methyl ethyl ketone (MEK) and toluene. However, there has been an increase in the use of alcohol and water-based cleaners. Work practices and housekeeping measures are widely used throughout the large appliances coating industry as a means of reducing VOC emissions from these types of cleaning operations. These measures include covering mixing tanks, storing solvents and solvent soaked rags and wipes in closed containers, and cleaning spray guns in an enclosed system. Another means of reducing VOC emissions from cleaning operations is the use of low-VOC content cleaning materials. However, little information is available regarding the extent of the use of these types of cleaning materials to reduce VOC emissions in the large appliances coating industry.

3. Existing Federal, State and Local VOC Control Strategies

There are three previous EPA actions that affect surface coating operations for large appliances. In 1977, EPA issued the Control of Volatile Organic Emissions from Existing Stationary Sources, Volume V: Surface Coating of Large Appliances (EPA–450/2–77–034, December 1977) document (1977 CTG), which provided RACT recommendations for controlling VOC emissions from this industry. The 1977 CTG is applicable to prime, single and topcoat application area(s), flash-off area, and ovens. The 1977 CTG recommended a VOC emission limit of 0.34 kg VOC/l (2.8 lb/gal) of coating, excluding water and exempt compounds, as applied. This recommendation was derived using an assumed VOC density of 0.88 kg/l (7.36 lb/gal). The recommended limit represents a higher solids solvent-borne coating with approximately 62 percent volume solids and is equivalent to 0.55 kg VOC/l (4.5 lb VOC/gal) coating solids (the 1977 CTG-equivalent limit). This equates to an 81 percent reduction of VOC emissions from a conventional high-VOC content solvent-borne coating.

In 1982, EPA promulgated the Standards of Performance for Industrial Surface Coating: Large Appliances, 40 CFR part 60, subpart SS (47 FR 47785, October 27, 1982). The 1982 NSPS is applicable to large appliance surface coating operations which are defined as prime coat or a topcoat operation and includes the coating application station(s), flash-off area, and curing oven. The 1982 NSPS requires new large appliances coating facilities to comply with an emission limit of 0.9 kg VOC/l(7.5 lb VOC/gal) of solids deposited. Because the 1982 NSPS limit is in terms of coating solids deposited and the 1977 CTG-equivalent limit is in terms of coating solids used, these limits cannot be compared directly. During the implementation of the 1977 CTG, a baseline transfer efficiency of 60 percent (*i.e.*, 0.60 volume of solids deposited per unit volume of solids used) was used to express the CTG-equivalent limit on a solids deposited basis. The CTG-equivalent limit on a solids deposited basis is 0.9 kg VOC/l (7.5 lb VOC/gal) coating solids deposited which is the same as the 1982 NSPS limit.

In 2002, EPA promulgated the National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances, 40 CFR part 63, subpart NNNN (67 FR 48254, July 23, 2002). The 2002 NESHAP addresses organic HAP emissions,

including VOC HAP emissions, from all activities that involve coatings, thinners, and cleaning materials used in large appliance coating operations. The areas covered by the 2002 NESHAP include: Coating operations; vessels used for storage and mixing of coatings, thinners, and cleaning materials; equipment, containers, pipes and pumps used for conveying coatings, thinners, and cleaning materials; and storage vessels, pumps and piping, and conveying equipment and containers used for waste materials. The 2002 NESHAP limits organic HAP to 0.13 kg/l (1.1 lb/gal) of coating solids used during each compliance period (monthly) for existing sources and 0.022 kg/l (0.18 lb/gal) of coating solids used for new sources.

In addition to the EPA actions mentioned above, at least 24 State and local jurisdictions have specific regulations that control VOC emissions from large appliances coating operations. Almost all of the jurisdictions that specifically address large appliances coatings have adopted the emission limit recommended in the 1977 CTG. The California Bay Area Air Quality Management District (Bay Area), however, has adopted more stringent limits. The Bay Area has established two VOC emission limits for surface coatings of large appliances: (1) 275 g VOC/l (2.3 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for baked coating; and (2) 340 g VOC/l (2.8 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for air-dried coating. Under the Bay Area regulation, large appliances coating facilities must use coatings that comply with the VOC emissions limit or as an alternative to using low-VOC content coatings, the facility may choose to install add-on controls. If add-on controls are used, the Bay Area requires that the VOC emissions generated by all sources of VOC emissions (*i.e.*, the coating line) are reduced by at least 85 percent. The Bay Area rule also requires the use of coating application equipment that can meet a 65 percent or greater transfer efficiency. Compliance with the standard's 65 percent or greater transfer efficiency requirement can be achieved by properly operated electrostatic application or HVLP spray, flow coat, roller coat, dip coat including electrodeposition, and brush coat.

Like the Bay Area's limits, the VOC emissions limits established by the South Coast Air Quality Management District (South Coast) for the coating of metal parts and products (which includes large appliances using a general multi-component coating) are: (1) 275 g VOC/l (2.3 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for baked coating; and (2) 340 g VOC/l (2.8 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, for air-dried coating. The South Coast regulation specifies the use of the following application methods: Electrostatic application, flow coat, dip coat, roll coat, HVLP spray, hand application methods, or other coating application method capable of achieving a transfer efficiency equivalent or better than that achieved by HVLP spraying. As an alternative to the VOC emissions limit and specified operating equipment, the South Coast regulation allows large appliances coating facilities to choose to install emission capture systems and add-on control devices. The South Coast regulation requires that if a facility chooses the capture and add-on control device alternative, 90 percent of the VOC emissions must be captured and the add-on control device must have a control efficiency of 95 percent.

Of the existing Federal, State, and local large appliances coating regulations discussed, the 2002 NESHAP, the Bay Area, the South Coast, and some other State regulations contain work practices as a control strategy for controlling VOC emissions from coating and cleaning materials. Under the 2002 NESHAP, the large appliances coating facility must develop and implement a work practice plan to minimize volatile organic HAP emissions if they comply with the standard using the emission rate with add-on controls option. The California regulations emphasize the work practice of keeping coating and cleaning material containers closed.

B. Recommended Control Techniques

The draft CTG recommends certain control techniques for reducing VOC emissions from large appliance coatings and cleaning materials. As explained in the draft CTG, we are recommending these control options for the large appliance furniture surface coating operations that emit 6.8 kg VOC/day (15 lb VOC/day) or more before consideration of control. We do not recommend these control approaches for facilities that emit below this level because of the very small VOC emission reductions that can be achieved. The recommended threshold level is equivalent to the evaporation of approximately 2 gallons of solvent per day. Such a level is considered to be an incidental level of solvent usage that could be expected even in facilities that use very low-VOC content coatings, such as powder or UV cure coatings. Furthermore, based on the 2002 NEI data and the 2004 ozone nonattainment designations, we estimate that all 68 of the large appliance surface coating facilities located in ozone nonattainment areas currently emit at or above this level. For these reasons, we did not extend our recommendations in the draft CTG to these low emitting facilities. This recommended threshold is also consistent with our recommendations in many previous CTGs.

For purposes of determining whether a facility meets the 6.8-kg/day (15-lb/day) threshold, aggregate emissions from all large appliance surface coating operations and related cleaning activities at a given facility are included.

1. Coatings

The draft CTG provides flexibility by recommending two options for controlling VOC emissions from coatings: (1) An emission limit that can be achieved through the use of low VOC content coatings; or (2) an overall control efficiency of 90 percent for facilities that choose to use add-on controls instead of low-VOC content coating. Specifically, the low-VOC content coatings recommendation includes a limit of 0.275 kg VOC/l (2.3 lb VOC/gal) of coating, excluding water and exempt compounds, as applied, and the use of the following application methods: Electrostatic spray, HVLP spray, flow coat, roller coat, dip coat including electrodeposition, brush coat, or other coating application method capable of achieving a transfer efficiency equivalent or better than that achieved by HVLP spraying. As an alternative to using low-VOC content coatings, a facility could choose to use combinations of capture and add-on control equipment to meet an overall control efficiency of 90 percent.

Furthermore, the draft CTG recommends work practices to control VOC emissions from large appliance surface coating-related activities. The draft CTG recommends that these work practices include the following: (1) Store all VOC-containing coatings, thinners, and coating-related waste materials in closed containers; (2) ensure that mixing and storage containers used for VOC-containing coatings, thinners, and coating-related waste materials are kept closed at all times except when depositing or removing these materials; (3) minimize spills of VOC-containing coatings, thinners, and coating-related waste materials; and (4) convey coatings, thinners and coating-related waste materials from one location to another in closed containers or pipes.

2. Cleaning Materials

The draft CTG recommends work practices to reduce VOC emissions from cleaning materials used in large appliance surface coating operations. The draft CTG recommends that, at a minimum, these work practices include the following: (1) Store all VOC-containing cleaning materials and used shop towels in closed containers; (2) ensure that mixing and storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials; (3) minimize spills of VOC-containing cleaning materials; (4) convey cleaning materials from one location to another in closed containers or pipes; and (5) minimize VOC emissions from cleaning of storage, mixing, and conveying equipment.

C. Impacts of Recommended Control Techniques

EPA estimates that approximately 34 percent of the large appliances coating facilities are located in ozone nonattainment areas (based on the 2004 designations). Accordingly, of the estimated 200 large appliances coating facilities nationwide, 68 are projected to be in nonattainment areas. As previously mentioned, the control strategies in the draft CTG are recommended for large appliances coating operations that emit at least 6.8 kg/day (15 lb/day). As noted above, based on available data, we estimate that all of the facilities in ozone nonattainment areas emit at or above this level.

Assuming that the 68 facilities projected to be in nonattainment areas are currently controlled at the 1977 CTG recommended level of control,[18] they are estimated to emit, in total, about 3,064 Mg (3,370 tons) of VOC per year. As discussed above, the draft CTG recommends either the use of low-VOC content coatings with specified application methods or add-on control technology. Both recommendations also include certain work practices to further reduce emissions from coatings as well as controlling VOC emission from cleaning materials. We estimated that the control measures under either recommendation would reduce VOC emissions from large appliances coating operations by about 32 percent (a reduction of 989 Mg (1,088 tons) of VOC from the nonattainment area facilities). In our analysis of the impacts of the recommended level of control, we have assumed that all facilities will choose to utilize the low-VOC content coatings alternative. We made this assumption for two reasons. First, we believe that complying low-VOC content coatings are already widely available at a cost that is not significantly greater than the cost of coatings with higher VOC contents. Secondly, the use of add-on controls to reduce emissions from typical spray coating operations is a more costly alternative because the spray booths and flash-off areas are often quite large and, thus, very large volumes of air must be captured and directed to the control device.

The compliance cost information that was obtained during the development of the NSPS and the NESHAP were used to estimate the impacts of the recommended level of control. This information is believed to be applicable because the primary means of compliance with the NSPS and the NESHAP was projected to be through the use of complying low-VOC content and low-HAP content coatings, respectively. The coating reformulation costs that were developed for estimating the impacts of the NESHAP are also the most recent information available. Using relevant information from coating reformulation studies and/or analyses conducted as part of the development of the NSPS and NESHAP, we estimate that the recommended level of control can be achieved at a total cost of $544,000. Based on the associated VOC emission reductions of 989 Mg/yr (1088 tpy), the estimated cost-effectiveness is $550/Mg ($500/ton). These estimates are further discussed in the draft CTG document.

The draft CTG also recommends work practices for reducing VOC emissions from both coatings and cleaning materials. We believe that our work practice recommendations in the draft CTG will result in a net cost savings. Implementing work practices reduce the amount of cleaning materials used by decreasing the amount that evaporates and is wasted.

D. Considerations in Determining Whether a CTG Will Be Substantially as Effective as a Regulation

In determining whether to issue a national rule or a CTG for the product category of large appliances coatings under CAA section 183(e)(3)(C), we analyzed the four factors identified above in Section I.D in light of the specific facts and circumstances associated with this product category. Based on that analysis, we propose to determine that a CTG will be substantially as effective as a rule in achieving VOC emission reductions in ozone nonattainment areas from large appliance surface coating operations.

As noted above, this section is divided into two parts. In the first part, we discuss our belief that the most effective means of achieving VOC emission reductions in this category is through controls at the point of use of the products, (i.e., through controls on the use of coating and cleaning materials at large appliances coating facilities), and this can only be accomplished through a CTG. We further explain that the recommended approaches in the draft CTG are consistent with existing effective Federal, State and local VOC control strategies. In the second part, we discuss how the distribution and place of use of the products in this category also support the use of a CTG. We also discuss the likely VOC emission reductions associated with a CTG, as compared to a regulation. We further explain that there are control approaches for this category that result in significant VOC emission reductions and that such reductions could only be obtained by controlling the use of the products through a CTG. Such reductions could not be obtained through a regulation under CAA section 183(e) because the controls affect the end-user, which is not a regulated entity under CAA section 183(e)(1)(C). For these reasons, which are described more fully below, we believe that a CTG will achieve much greater VOC emission reductions than a national rule developed under CAA section 183(e) for this category.

1. The Most Effective Entity To Target for VOC Reductions and Consistency With Existing Federal, State and Local VOC Strategies

To evaluate the most effective entity to target for VOC reductions, it is important first to identify the primary sources of VOC emissions. There are two main sources of VOC emissions from large appliances coating: (1) Evaporation of VOC from coatings; and (2) evaporation of VOC from cleaning materials. We address each of these sources of VOC emissions, in turn, below, as we discuss the CTG versus regulation approach.

a. Coatings

A national rule could contain limits for the as-sold VOC content of large appliance coatings. However, given the nature of the large appliances coating process, we believe that such a rule would result in little reduction in VOC emissions.

Although significant amounts of low-VOC content coatings are currently being used for large appliances coating, they cannot replace the traditional

[18] We believe that this assumption is reasonable because 24 states have adopted the 1977 CTG limit.

solvent-borne coatings in some instances. As described above, customer specifications, quick drying time (needed to meet production demands and prevent surface damage) and capital investments are reasons why solvent-borne coatings are still being used. Accordingly, a national rule that requires low VOC content in large appliance coatings would nevertheless need to include higher VOC content limits to allow for the use of solvent-borne coatings when necessary and to maintain these materials' intended effect. Because such a rule would merely codify what the large appliance surface coating facilities are already doing, we do not expect that it would result in significant VOC reductions from these facilities.

Furthermore, the effect of a national rule setting low VOC content limits for large appliance surface coatings could be easily subverted because it does not guarantee that only those low VOC coating materials will be used for large appliance surface coating. Many coatings used in large appliance surface coating are not identified by the supplier specifically as large appliances coatings. Therefore, these facilities can purchase and use coating materials not specified as large appliance coatings, which would effectively nullify the reformulation actions of the manufacturers and suppliers, resulting in no net change in VOC emissions in ozone nonattainment areas.

Alternatively, a national rule could, in theory, limit the VOC content of all coatings sold regardless of specified end use, thus ensuring that only low-VOC materials are available for large appliances coatings. Such an approach would be unreasonable and impractical. Coatings are sold for multiple different commercial and industrial purposes. Coating reformulation could impact uses of these materials other than large appliances coating and may inadvertently preclude the use of such materials in many important, legitimate contexts.

By contrast, a CTG can reach the end users of the coating materials and can therefore implement the control measures that are more likely to achieve the objective of reducing VOC emissions from this product category in ozone nonattainment areas. As previously discussed, the draft CTG recommends an emission limit for large appliances surface coating operations that can be achieved through the use of low-VOC content coatings and specific application methods. Alternatively, the draft CTG recommends an overall 90 percent control efficiency should a facility choose to use add-on controls in conjunction with high VOC content coatings. In addition, both recommendations in the draft CTG include work practices to further reduce VOC emissions from coatings as well as controlling VOC emissions from cleaning materials. The use of low-VOC content coatings can greatly reduce VOC emissions. Alternatively, control devices, such as thermal oxidizers, catalytic oxidizers, or carbon adsorbers, can achieve a significant reduction in VOC emissions from high VOC content coatings. The recommended work practices and application methods have also been shown to be effective VOC reduction measures. Given the significant reductions achievable through use of these recommended control measures, the most effective entity to address VOC emissions from large appliances coatings is the facility using the coatings.

These control measures are consistent with existing EPA, State and local VOC control strategies applicable to large appliances coating. As mentioned above, previous EPA actions and existing State and local regulations that address large appliance surface coating similarly call for VOC emission reduction through the use of control devices in conjunction with high-VOC content coating materials or the use of equivalent low-VOC content coating materials; some also include work practices and specific application methods.

We cannot, however, issue a national rule directly requiring large appliances coating facilities to use low-VOC content coatings, specific application methods, or control devices, or to implement work practices to reduce VOC emissions because, pursuant to CAA section 183(e)(1)(C) and (e)(3)(A), the regulated entities subject to a national rule would be the coating manufacturers and suppliers, not the large appliances facilities. By contrast, a CTG can reach the end users of the large appliances coatings and can therefore implement the measures by the users that are identified above as more likely to achieve the intended VOC emission reduction goal. Accordingly, we are including these control measures in the draft CTG that applies to large appliances coating facilities as the end users of the coating materials.

b. Cleaning Materials

There are two primary means to control VOC emissions associated with the cleaning materials used in large appliances coating process: (1) Limiting the VOC content or vapor pressure of the cleaning materials, and (2) implementing work practices governing the use of the product. A national rule requiring that manufacturers of cleaning materials for large appliance coating operations provide low-VOC content or low vapor pressure cleaning materials would suffer from the same deficiencies noted above with regard to coatings. Specifically, nothing in a national rule governing manufacturers of the cleaning materials would preclude the large appliances products facilities from purchasing bulk solvents or other multipurpose cleaning materials from other vendors. The general availability of bulk solvents or multipurpose cleaning materials from vendors that would not be subject to the regulation would directly undermine the effectiveness of such a national regulation.

A national rule also could, in theory, limit the VOC content or vapor pressure of all cleaning materials and all solvents sold regardless of specified end use, which would ensure that only low-VOC content or low vapor pressure cleaning materials are available for cleaning operations associated with large appliance surface coating. As with a low-VOC content limit on coatings, setting a low-VOC content or a low vapor pressure limit for all cleaning materials and solvents would be unreasonable and impractical. Cleaning materials and solvents are sold for multiple different commercial and industrial purposes. Replacing highly volatile cleaning materials and solvents would impact uses of these materials other than cleaning operations at large appliance surface coating facilities and may inadvertently preclude the use of such materials in many important, legitimate contexts.

The more effective approach for obtaining VOC reductions from cleaning materials used by large appliances coaters is to control the use of such materials. The draft CTG recommends large appliance coaters implement work practices to reduce VOC emissions from cleaning materials during large appliances coating operations. An example of an effective work practice is keeping solvents and used shop towels in closed containers. This measure alone can significantly reduce VOC emissions from cleaning materials. Provided immediately below are examples of other effective work practices that are being required by State and local regulations. Given the significant VOC reductions achievable through implementation of work practices, we conclude that the most effective entity to address VOC emissions from cleaning materials used in large appliances coating operations is

the facility using the cleaning materials during these operations.

This recommendation is consistent with measures required by Federal, States, and localities for reducing VOC emissions from cleaning materials used in large appliances coating operations. In addition to keeping solvents and shop towels in closed containers, State and local requirements include: Cleaning and wash-off solvent accounting systems (*i.e.*, log of solvent purchase, usage, and disposal); collecting and containing all VOC when cleaning coating lines and spray guns, and using low-VOC cleaning materials. Work practices have proven to be effective in reducing VOC emissions.

We cannot, however, issue a rule requiring such work practices at large appliances facilities because, pursuant to CAA section 183(e)(1)(C) and (e)(3)(A), the regulated entities subject to a national rule would be the cleaning materials manufacturers and suppliers and not the large appliances facilities. Accordingly, we are including these work practices in the draft CTG that applies to large appliances coating facilities as the end users of the cleaning materials.

Based on the nature of large appliances coating process, the sources of significant VOC emissions from this process, and the available strategies for reducing such emissions, the most effective means of achieving VOC emission reductions from this product category is through controls at the point of use of the products, (*i.e.*, through controls on large appliances coaters), and this can only be accomplished through a CTG. The approaches described in the draft CTG are also consistent with effective existing EPA, State, local VOC control strategies for large appliances coating operations. These two factors alone demonstrate that a CTG will be substantially as effective as a national regulation under CAA section 183(e).

2. The Product's Distribution and Place of Use and Likely VOC Emission Reductions Associated With a CTG Versus a Regulation

The factors described in the above section, taken by themselves, weigh heavily in favor of the CTG approach. The other two factors relevant to the CAA section 183(e)(3)(C) determination only further confirm that a CTG will be substantially as effective as a national regulation for large appliances coatings.

First, the products described above are used at commercial facilities in specific, identifiable locations. Specifically, these materials are used in commercial facilities that coat large appliance products and parts, as described in Section IV.A. This stands in contrast to other consumer products, such as architectural coatings, that are widely distributed and used by innumerable small users (*e.g.*, individual consumers in the general public). Because the VOC emissions are occurring at commercial manufacturing facilities, implementation and enforcement of controls concerning the use of these products are feasible and therefore the nature of these products' place of use further counsels in favor of the CTG approach.

Second, a CTG will achieve greater emission reduction than a national rule for each source of VOC emissions from large appliances coatings and associated cleaning materials. For the reasons described above, we believe that a national rule limiting the VOC content in coatings and cleaning materials used in large appliance surface coating operations would result in little VOC emissions reduction. By contrast, a CTG can achieve significant VOC emission reduction because it can provide for the highly effective emission control strategies described above that are applicable to the end-users of the coating and cleaning materials at large appliance facilities. Specifically, the draft CTG can provide for the use of add-on control devices in conjunction with high-VOC coatings and work practices. These significant VOC reductions associated with these measures could not be obtained through a national regulation because they are achieved through the implementation of measures by the end-user. In addition, as previously explained, strategies that arguably could be implemented through rulemaking, such as limiting the VOC content in large appliances coatings and cleaning materials, are far more effective if implemented directly at the point of use of the product. For the reasons stated above, it is more effective to control the VOC content of coatings and cleaning materials used for large appliances coating through a CTG than through a national regulation.

Furthermore, the number of large appliances coating facilities affected by our recommendations in this draft CTG, as compared to the number of such facilities in nonattainment areas does not affect our conclusion that the CTG would be more effective than a rule in controlling VOC emissions for this product category. As previously mentioned, we recommend the control measures described in the draft CTG for large appliances surface coating facilities that emit at or above 6.8 kilograms per day (15 pounds per day). Based on the 2004 ozone nonattainment designations, we estimate that all of the large appliances surface coating facilities located in ozone nonattainment areas (68 facilities) emit at or above this level and are therefore addressed by our recommendations in the draft CTG.

Upon considering the above factors in light of the facts and circumstances associated with this product category, we propose to determine that a CTG for large appliances coatings will be substantially as effective as a national regulation.

V. Statutory and Executive Order (EO) Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under EO 12866 (58 FR 51735, October 4, 1993), this action is a ''significant regulatory action,'' since it is deemed to raise novel legal or policy issues. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). This action does not contain any information collection requirements.

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.

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 EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare

a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.

Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this proposed determination, I certify that this action will not have a significant economic impact on a substantial number of small entities. This proposed action will not impose any requirements on small entities. EPA is proposing to take final action to list the three Group III consumer and commercial product categories addressed in this notice for purposes of CAA section 183(e) of the Act. The listing action alone does not impose any regulatory requirements. EPA is also proposing to determine that, for the three product categories at issue, a CTG will be substantially as effective as a national regulation in achieving VOC emission reductions in ozone nonattainment areas. The proposed determination means that EPA has concluded that it is not appropriate to issue Federal regulations under CAA section 183(e) to regulate VOC emissions from these three product categories. Instead, EPA has concluded that it is appropriate to issue guidance in the form of CTGs that provide recommendations to States concerning potential methods to achieve needed VOC emission reductions from these product categories. In addition to the proposed determination, EPA is also taking comment on the draft CTGs for these three product categories. When finalized, these CTG will be guidance documents. EPA does not directly regulate any small entities through the issuance of a CTG. Instead, EPA issues CTG to provide States with guidance on developing appropriate regulations to obtain VOC emission reductions from the affected sources within certain nonattainment areas. EPA's issuance of a CTG does trigger an obligation on the part of certain States to issue State regulations, but States are not obligated to issue regulations identical to the Agency's CTG. States may follow the guidance in the CTG or deviate from it, and the ultimate determination of whether a State regulation meets the RACT requirements of the CAA would be determined through notice and comment rulemaking in the Agency's action on each State's State Implementation Plan. Thus, States retain discretion in determining what degree to follow the CTGs.

We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

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

EPA has determined that the listing action and the proposed determination for each of the three product categories that a CTG would be substantially as effective as a regulation for these product categories contain no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector because they impose no enforceable duty on any State, local or tribal governments or the private sector. (Note: The term ''enforceable duty'' does not include duties and conditions in voluntary Federal contracts for goods and services.) Thus, this action is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, we have determined that the listing action and the proposed determination contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no regulatory requirements that apply to such governments or impose obligations upon them. Therefore, this action is not subject to the requirements of section 203 of UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the EO to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

The listing action and the proposed determination that CTGs are substantially as effective as regulations for these product categories do not have federalism implications. They do not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The CAA establishes the relationship between the Federal Government and the States, and this action does not impact that relationship. Thus, Executive Order 13132 does not apply to the listing action and the proposed determination. However, in the spirit of EO 13132, and consistent with EPA policy to promote communications between EPA and State

and local governments, EPA is soliciting comment on the listing action, the proposed determination, and the proposed draft CTGs from State and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications.''

The listing action and the proposed determination that CTGs would be substantially as effective as regulations to achieve VOC emission reductions from these product categories do not have Tribal implications, as specified in Executive Order 13175. They do not have a substantial direct effect on one or more Indian Tribes, in that the listing action and the proposed determination impose no regulatory burdens on tribes. Furthermore, the listing action and the proposed determination do not affect the relationship or distribution of power and responsibilities between the Federal government and Indian Tribes. The CAA and the Tribal Authority Rule (TAR) establish the relationship of the Federal government and Tribes in implementing the Clean Air Act. Because listing action and the proposed determination do not have Tribal implications, Executive Order 13175 does not apply.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045, ''Protection of Children from Environmental Health and Safety Risks'' (62 FR 19885, April 23, 1997) applies to any rule that (1) is determined to be ''economically significant'' as defined under EO 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency 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.

The listing action and the proposed determination are not subject to Executive Order 13045 because they are not economically significant regulatory actions as defined by Executive Order 12866. In addition, EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health and safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulations. The listing action and the proposed determination are not subject to Executive Order 13045 because they do not include regulatory requirements based on health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not a ''significant energy action'' as defined in Executive Order 13211, ''Action Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. These actions impose no regulatory requirements and are therefore not likely to have any adverse energy effects.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law No. 104–113, Section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their 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 standards bodies. The NTTAA directs EPA to provide Congress, through OMB, with explanations when the Agency does not use available and applicable voluntary consensus standards.

The listing action and the proposed do not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that the listing action and the proposed determination will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations. The purpose of section 183(e) is to obtain VOC emission reductions to assist in the attainment of the ozone NAAQS. The health and environmental risks associated with ozone were considered in the establishment of the ozone NAAQS. The level is designed to be protective of the public with an adequate margin of safety. EPA's listing of the products and its determination that CTGs are substantially as effective as regulations are actions intended to help States achieve the NAAQS in the most appropriate fashion. Accordingly, these actions would help increase the level of environmental protection to populations in affected ozone nonattainment areas without having any disproportionately high and adverse human health or environmental effects on any populations, including any minority or low-income populations.

List of Subjects in 40 CFR Part 59

Environmental protection, Air pollution control, Consumer and commercial products, Confidential business information, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: June 29, 2007.

Stephen L. Johnson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations is proposed to be amended as follows:

PART 59—[AMENDED]

1. The authority citation for part 59 continues to read as follows:

Authority: 42 U.S.C. 7414 and 7511b(e).

Subpart A—General

2. Section 59.1 is revised to read as follows:

§ 59.1 Final determinations under section 183(e)(3)(C) of the Clean Air Act.

This section identifies the consumer and commercial product categories for which EPA has determined that control techniques guidelines (CTGs) will be substantially as effective as regulations

in reducing volatile organic compound (VOC) emissions in ozone nonattainment areas:

(a) Wood furniture coatings;

(b) Aerospace coatings;

(c) Shipbuilding and repair coatings;

(d) Lithographic printing materials;

(e) Letterpress printing materials;

(f) Flexible packaging printing materials;

(g) Flat wood paneling coatings;

(h) Industrial cleaning solvents;

(i) Paper, film, and foil coatings;

(j) Metal furniture coatings; and

(k) Large appliance coatings.

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