Virginia Regulatory Town Hall

Proposed Regulation
Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulations for the Control and Abatement of Air Pollution
Primary Action:	Part II (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40
Secondary Action(s):	Part I (9 VAC 5-20-21) of 9 VAC 5 Chapter 20
Action Title:	VOC Emission Standards (Rev. C02)
Date:	December 18, 2002

This information is required pursuant to the Administrative Process Act (§ 2.2-4000 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), and the *Virginia Register Form, Style and Procedure Manual*. Please refer to these sources for more information and other materials required to be submitted in the regulatory review package.

Summary *

Please provide a brief summary of the proposed new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation.

The proposed regulatory action will add four new regulations to Chapter 40 of Regulations for the Control and Abatement of Air Pollution. These regulations will apply only to sources in the Northern Virginia volatile organic compounds emissions control area designated in 9 VAC 5-20-206.

1. The regulation for portable fuel container spillage control (Rule 4-42) will apply (with some exceptions) to any person who sells, supplies, offers for sale, or manufactures for sale portable fuel containers or spouts.

2. The regulation for solvent cleaning (Rule 4-47) will apply (with some exceptions) to each solvent metal cleaning operation, including, but not limited to, cold or vapor degreasing at service stations; motor vehicle repair shops; automobile dealerships; machine shops; and any other metal refinishing, cleaning, repair, or fabrication facility. The provisions of this article also apply to sellers of solvents for use in a cold cleaning machine.

3. The regulation for mobile equipment repair and refinishing (Rule 4-48) will apply (with some exceptions) to each mobile equipment repair and refinishing operation. The provisions also apply to each person who sells coatings used in such operations.

4. The regulation for architectural and industrial maintenance coatings (Rule 4-49) will apply (with some exceptions) to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use, as well as any person who applies or solicits the application of any architectural coating.

The regulations will establish emission standards, consisting of emission limits and control technology requirements, and other requirements which control levels of VOCs being emitted into the ambient air. They will also establish source surveillance requirements which (i) provide the enforcement basis, specify test methods and procedures, and specify procedures for monitoring for determining compliance with the emission standards; and (ii) require the owner to provide certain notifications, records and reports in order that the department may determine compliance with emission standards and other applicable requirements.

Basis *

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation proposed. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the proposed regulation and that it comports with applicable state and/or federal law.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Written assurance from the Office of the Attorney General that the State Air Pollution Control Board possesses the statutory authority to promulgate the proposed regulations.

Purpose *

Please provide a statement explaining the rationale or justification of the proposed regulation as it relates to the health, safety or welfare of citizens.

The purpose of the regulations is to require owners to limit emissions of air pollution from portable fuel containers, solvent cleaning, mobile equipment repair and refinishing, and architectural and industrial maintenance coatings to the level necessary for (i) the protection of public health and welfare, and (ii) the attainment and maintenance of the air quality standards. The regulations are proposed in order to provide emissions reductions sufficient to achieve the ozone standard in Northern Virginia.

Substance *

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the regulatory action's changes.

The proposed regulatory action will add four new regulations, as explained below.

1. Portable Fuel Container Spillage Control (Rule 4-42) establishes standards for emissions of volatile organic compounds from portable fuel containers and spouts. Exempted from the regulation is any portable fuel container or spout manufactured for shipment, sale, and use outside of the Northern Virginia volatile organic compound emissions control area. Also exempted is a manufacturer or distributor who sells, supplies, or offers for sale a portable fuel container or spout that does not comply with the emission standards specified in 9 VAC 5-40-5720, as long as the manufacturer or distributor can demonstrate that: (i) the portable fuel container or spout is intended for shipment and use outside of the Northern Virginia volatile organic compound emissions control area; and (ii) that the manufacturer or distributor has taken reasonable prudent precautions to assure that the portable fuel container or spout is not distributed within

the Northern Virginia volatile organic compound emissions control area. Also exempted are safety cans meeting the requirements of 29 CFR Part 1926 Subpart F. Also exempted are portable fuel containers with a nominal capacity less than or equal to one quart. Also exempted are rapid refueling devices with nominal capacities greater than or equal to four gallons, provided such devices are designed either (i) to be used in officially sanctioned off-highway motorcycle competitions, (ii) to create a leak-proof seal against a stock target fuel tank, or (iii) to operate in conjunction with a receiver permanently installed on the target fuel tank. Also exempted are portable fuel tanks manufactured specifically to deliver fuel through a hose attached between the portable fuel tank and the outboard engine for the purpose of operating the outboard engine.

2. Solvent Cleaning (Rule 4-47) establishes standards for emissions of volatile organic compounds from cold cleaning machines, batch vapor cleaning machines, in-line vapor cleaning machines, airless or air-tight cleaning machines, and other equipment.

3. Mobile Equipment Repair and Refinishing (Rule 4-48) establishes standards for emissions of volatile organic compounds from automotive pretreatment primer, automotive primer-surfacer, automotive primer-sealer, automotive topcoat, single stage-topcoat, 2-stage basecoat/clearcoat, 3- or 4-stage basecoat/clearcoat, automotive multi-colored topcoat, automotive specialty coating, and other coatings. Exempted from the regulation for mobile equipment repair and refinishing is any mobile equipment repair and refinishing operation subject to Article 28 (9 VAC 5-40-3860 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Automobile and Light Duty Truck Coating Application Systems). Also exempted is any mobile equipment repair and refinishing operation subject to Article 34 (9 VAC 5-40-4760 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Miscellaneous Metal Parts and Products Coating Application Systems). Also exempted is any person applying the coatings who does not receive compensation for the application of the coatings.

4. Architectural and Industrial Maintenance Coatings (Rule 4-49) establishes standards for emissions of volatile organic compounds from lacquer coatings, metallic pigmented coatings, shellacs, fire-retardant coatings, pretreatment wash primers, low-solids coatings, wood preservatives, high-temperature coatings, temperature-indicator safety coatings, antenna coatings, antifouling coatings, flow coatings, bituminous roof primers, specialty primers, sealers, undercoaters, and other coatings. Exempted from the regulation for architectural and industrial maintenance coatings is any architectural coating that is sold or manufactured for use exclusively outside of the Northern Virginia Volatile Organic Compounds Emission Control Area or for shipment to other manufacturers for reformulation or repackaging. Also exempted is any aerosol coating product. Also exempted is any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less. Also exempted are coating plants whose emissions of volatile organic compounds are not more than 2.7 tons per year, 15 pounds per day, and 3 pounds per hour, based on the actual emission rate.

5. The regulations incorporate by reference a number of provisions from other regulations concerning standards for visible emissions, odor, and toxic pollutants;

compliance; test methods and procedures; monitoring; notification, records, and reporting; registration; facility and control equipment maintenance or malfunction; and permits.

6. The regulations apply to affected facilities and persons in jurisdictions within the Northern Virginia volatile organic compounds emissions control area designated in 9 VAC 5-20-206: the counties of Arlington, Fairfax, Loudoun, Prince William, Stafford; and the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park.

Issues *

Please provide a statement identifying the issues associated with the proposed regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public of implementing the new or amended provisions; and 2) the primary advantages and disadvantages to the agency or the Commonwealth. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

1. Public: The primary advantage to the public is that the adoption of these regulations will significantly decrease emissions of VOCs in the Northern Virginia area, thus benefiting public health and welfare. There are no disadvantages to the public.

2. Department: The primary advantages to the department are that the adoption of these regulations will allow Virginia (1) to avoid federal sanctions that would be imposed for violating the SIP provisions of the Clean Air Act, and (2) to uphold its promise to its jurisdictional neighbors (Maryland and Washington, D.C.). There are no disadvantages to the department.

Localities Particularly Affected *

Please provide the identity of any localities particularly affected by the proposed regulation.

The localities particularly affected by the proposed regulations are the counties of Arlington, Fairfax, Loudoun, Prince William, and Stafford; and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Public Participation *

Please indicate the nature of the comments the Department is soliciting pursuant to this notice.

The Department is seeking comment on the proposed regulations and the costs and benefits of the proposal. The Department is also seeking comment on the impacts of the proposed regulations on farm and forest lands.

Impact

Please identify the anticipated fiscal impacts and at a minimum include: (a) the projected cost to the state to implement and enforce the proposed regulation, including (i) fund source / fund detail, (ii) budget

activity with a cross-reference to program and subprogram, and (iii) a delineation of one-time versus on-going expenditures; (b) the projected cost of the regulation on localities; (c) a description of the individuals, businesses or other entities that are likely to be affected by the regulation; (d) the agency's best estimate of the number of such entities that will be affected; and(e) the projected cost of the regulation for affected individuals, businesses, or other entities. Include a description of the beneficial impact the regulation is designed to produce.

1. Entities Affected

The first number below (for automotive refinishing facilities) was obtained from the Washington Metropolitan Autobody Association. The second and third numbers below were obtained by the Department of Environmental Quality via the Comprehensive Environmental Data System (CEDS). The first two numbers below are for Northern Virginia only; the third number covers all Virginia. The number of sellers of coatings and cans could not be determined.

237 automotive refinishing facilities (mobile equipment repair and refinishing rule); see also "manufacturers" below

392 service stations and 4 degreasing and solvent recovery facilities (solvent cleaning rule)

193 manufacturers of architectural coatings, automobile refinishing coatings, and portable gas cans

Total facilities: 898

2. Fiscal Impact

a. Costs to Affected Entities

The citations for the cost figures cited below derive from a report entitled "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules," by E. H. Pechan and Associates, prepared for the Ozone Transport Commission, March 31, 2001. These costs do not apply to sellers of coatings and cans, whose costs could not be determined.

(1) Mobile equipment repair and refinishing rule: $1,534 per ton (p. 20)

(2) Solvent cleaning rule: $1,400 per ton (p. 19)

(3) Portable fuel container spillage rule: $450 per ton (p. 14)

(4) Architectural and industrial maintenance coatings rule: $6,400 per ton (p. 17)

b. Costs to Localities

The projected cost of the regulation on localities is not expected to be beyond that of other affected entities and are addressed in paragraph 2a above.

c. Costs to Agency

It is not expected that the regulation will result in any cost to the Department beyond that currently in the budget. The sources of Department funds to carry out this regulation are the general fund and the federal trust (grant money provided by the U.S. Environmental Protection Agency under Section 105 of the federal Clean Air Act or permit fees charged to affected entities under the permit program). The activities are budgeted under the following program (code)/subprogram (code): (i) Environmental and Resource Management (5120000)/Air Quality Stationary Source Permitting (5122000) and Air Quality Stationary Source Compliance Inspections (5122100). The costs are expected to be ongoing.

d. Benefits

The adoption of these regulations will significantly decrease emissions of VOCs in the Northern Virginia area. This emissions reduction will benefit public health and welfare. It will also allow Virginia to avoid federal sanctions that would be imposed for violating the SIP provisions of the Clean Air Act and to uphold its promise to its jurisdictional neighbors (Maryland and Washington, D.C.) to take this action.

e. Small Business Impact

The impact upon facilities that meet the definition of small business provided in э 9-199 of the Code of Virginia is addressed in paragraph 2a above.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the contemplated regulation. The discussion of these requirements should include a description of their scope and the extent to which the requirements are mandatory or discretionary. Full citations for the legal requirements and web site addresses, if available, for locating the text of the cited legal provisions should be provided.

Federal Requirements

Federal Clean Air Act (CAA):
http://www.epa.gov/ttn/oarpg/gener.html
Code of Federal Regulations (CFR):
http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html
Federal Register (FR):
http://www.gpo.gov/su_docs/aces/aces140.html

Sections 109 (a) and (b) of the Clean Air Act require EPA to prescribe primary and secondary air quality standards to protect public health and welfare, respectively, for each air pollutant for which air quality criteria were issued before the enactment of the 1970 Clean Air Act. These standards are known as the National Ambient Air Quality Standards (NAAQS). Section 109 (c) requires EPA to prescribe such standards simultaneously with the issuance of new air quality criteria for any additional air pollutant. The primary and secondary air quality criteria are authorized for promulgation under Section108.

Section 110(a) of the Clean Air Act (CAA) mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the state. The state implementation plan shall be adopted only after reasonable public notice is given and public hearings are held. The plan shall include provisions to accomplish, among other tasks, the following:

(1) establish enforceable emission limitations and other control measures as necessary to comply with the provisions of the CAA, including economic incentives such as fees, marketable permits, and auctions of emissions rights;

(2) establish schedules for compliance;

(3) prohibit emissions which would contribute to nonattainment of the standards or interference with maintenance of the standards by any state; and

(4) require sources of air pollution to install, maintain, and replace monitoring equipment as necessary and to report periodically on emissions-related data.

40 CFR Part 50 specifies the NAAQS: sulfur dioxide, particulate matter, carbon monoxide, ozone (and its precursors, volatile organic compounds) nitrogen dioxide, and lead.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of state implementation plans. These requirements mandate that any such plan shall include several provisions, including those summarized below.

Subpart G (Control Strategy) specifies the description of control measures and schedules for implementation, the description of emissions reductions estimates sufficient to attain and maintain the standards, time periods for demonstrations of the control strategy's adequacy, an emissions inventory, an air quality data summary, data availability, special requirements for lead emissions, stack height provisions, and intermittent control systems.

Subpart K (Source Surveillance) specifies procedures for emissions reports and record-keeping, procedures for testing, inspection, enforcement, and complaints, transportation control measures, and procedures for continuous emissions monitoring.

Subpart L (Legal Authority) specifies the requirements for legal authority to implement plans.

Section 51.230 under Subpart L specifies that each state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to perform the following actions:

(1) adopt emission standards and limitations and any other measures necessary for the attainment and maintenance of the national ambient air quality standards;

(2) enforce applicable laws, regulations, and standards, and seek injunctive relief;

(3) abate pollutant emissions on an emergency basis to prevent substantial endangerment to the health of persons;

(4) prevent construction, modification, or operation of a facility, building, structure, or installation, or combination thereof, which directly or indirectly results or may result in emissions of any air pollutant at any location which will prevent the attainment or maintenance of a national standard;

(5) obtain information necessary to determine whether air pollution sources are in compliance with applicable laws, regulations, and standards, including authority to require record-keeping and to make inspections and conduct tests of air pollution sources;

(6) require owners or operators of stationary sources to install, maintain, and use emission monitoring devices and to make periodic reports to the state on the nature and amounts of emissions from such stationary sources; and

(7) make emissions data available to the public as reported and as correlated with any applicable emission standards or limitations.

Section 51.231 under Subpart L requires the identification of legal authority as follows:

(1) the provisions of law or regulation which the state determines provide the authorities required under this section must be specifically identified, and copies of such laws or regulations must be submitted with the plan; and

(2) the plan must show that the legal authorities specified in this subpart are available to the state at the time of submission of the plan.

Subpart N (Compliance Schedules) specifies legally enforceable compliance schedules, final compliance schedule dates, and conditions for extensions beyond one year.

Part D of Title I of the Clean Air Act describes how nonattainment areas are established, classified, and required to meet attainment. Subpart 1 provides the overall framework of what nonattainment plans are to contain, while Subpart 2 provides more detail on what is required of areas designated nonattainment for ozone.

Section 171 defines "reasonable further progress," "nonattainment area," "lowest achievable emission rate," and "modification."

Section 172(a) authorizes EPA to classify nonattainment areas for the purpose of assigning attainment dates. Section 172(b) authorizes EPA to establish schedules for the submission of plans designed to achieve attainment by the specified dates. Section 172(c) specifies the provisions to be included in each attainment plan, as follows:

(1) the implementation of all reasonably available control measures as expeditiously as practicable and shall provide for the attainment of the national ambient air quality standards;

(2) the requirement of reasonable further progress;

(3) a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutants in the nonattainment area;

(4) an identification and quantification of allowable emissions from the construction and modification of new and modified major stationary sources in the nonattainment area;

(5) the requirement for permits for the construction and operations of new and modified major stationary sources in the nonattainment area;

(6) the inclusion of enforceable emission limitations and such other control measures (including economic incentives such as fees, marketable permits, and auctions of emission rights) as well as schedules for compliance;

(7) if applicable, the proposal of equivalent modeling, emission inventory, or planning procedures; and

(8) the inclusion of specific contingency measures to be undertaken if the nonattainment area fails to make reasonable further progress or to attain the national ambient air quality standards by the attainment date.

Section 172(d) requires that attainment plans be revised if EPA finds inadequacies. Section 172(e) authorizes the issuance of requirements for nonattainment areas in the event of a relaxation of any national ambient air quality standard. Such requirements shall provide for controls which are not less stringent than the controls applicable to these same areas before such relaxation.

Under Part D, Subpart 2, §182(a)(2)(A) requires that the existing regulatory program requiring reasonably available control technology (RACT) for stationary sources of volatile organic compounds (VOCs) in marginal nonattainment areas be corrected by May 15, 1991, to meet the minimum requirements in existence prior to the enactment of the 1990 amendments. RACT is the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering

technological and economic feasibility. EPA has published control technology guidelines (CTGs) for various types of sources, thereby defining the minimum acceptable control measure or RACT for a particular source type.

Section 182(b) requires stationary sources in moderate nonattainment areas to comply with the requirements for sources in marginal nonattainment areas. The additional, more comprehensive control measures in §182(b)(2)(A) require that each category of VOC sources employ RACT if the source is covered by a CTG document issued between enactment of the 1990 amendments and the attainment date for the nonattainment area. Section 182(b)(2)(B) requires that existing stationary sources emitting VOCs for which a CTG existed prior to adoption of the 1990 amendments also employ RACT.

Section 182(c) requires stationary sources in serious nonattainment areas to comply with the requirements for sources in both marginal and moderate nonattainment areas.

EPA has issued detailed guidance that sets out its preliminary views on the implementation of the air quality planning requirements applicable to nonattainment areas. This guidance is titled the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" (or "General Preamble"). See 57 FR 13498 (April 16, 1992) and 57 FR 18070 (April 28, 1992). The General Preamble has been supplemented with further guidance on Title I requirements. See 57 FR 31477 (July 16, 1992) (announcing the availability of draft guidance for lead nonattainment areas and serious PM_{10} nonattainment areas); 57 FR 55621 (Nov. 25, 1992) (guidance on NO_X RACT requirements in ozone nonattainment areas). For this subject, the guidance provides little more than a summary and reiteration of the provisions of the Act.

State Requirements

Code of Virginia:
http://leg1.state.va.us/000/cod/codec.htm
Virginia Administrative Code (VAC):
http://leg1.state.va.us/000/reg/toc.htm

These specific regulations are not required by state mandate. Rather, Virginia's Air Pollution Control Law gives the State Air Pollution Control Board the discretionary authority to promulgate regulations "abating, controlling and prohibiting air pollution throughout or in any part of the Commonwealth" (§ 10.1-1308). The law defines such air pollution as "the presence in the outdoor atmosphere of one or more substances which are or may be harmful or injurious to human health, welfare or safety, to animal or plant life, or to property, or which unreasonably interfere with the enjoyment by the people or life or property" (§ 10.1-1300).

Comparison with Federal Requirements

Please describe the provisions of the proposed regulation which are more restrictive than applicable federal requirements together with the reason why the more restrictive provisions are needed.

The proposed regulations are not more restrictive than the applicable legal requirements.

Need

Please provide an explanation of the need for the proposed regulation and potential consequences that may result in the absence of the regulation. Also set forth the specific reasons the agency has determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens or would be essential for the efficient and economical performance of an important governmental function. Include a discussion of the problems the regulation's provisions are intended to solve.

Among the primary goals of the federal Clean Air Act are the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS).

The NAAQS, developed and promulgated by the U.S. Environmental Protection Agency (EPA), establish the maximum limits of pollutants that are permitted in the outside ambient air. EPA requires that each state submit a plan (called a State Implementation Plan or SIP), including any laws and regulations necessary to enforce the plan, that shows how the air pollution concentrations will be reduced to levels at or below these standards (attainment). Once the pollution levels are within the standards, the SIP must also demonstrate how the state will maintain the air pollution concentrations at the reduced levels (maintenance).

A SIP is the key to the state's air quality programs. The Clean Air Act is specific concerning the elements required for an acceptable SIP. If a state does not prepare such a plan, or EPA does not approve a submitted plan, then EPA itself is empowered to take the necessary actions to attain and maintain the air quality standards—that is, it would have to promulgate and implement an air quality plan for that state. EPA is also, by law, required to impose sanctions in cases where there is no approved plan or the plan is not being implemented, the sanctions consisting of loss of federal funds for highways and other projects and/or more restrictive requirements for new industry. Generally, the plan is revised, as needed, based upon changes in the federal Clean Air Act and its requirements.

The basic approach to developing a SIP is to examine air quality across the state, delineate areas where air quality needs improvement, determine the degree of improvement necessary, inventory the sources contributing to the problem, develop a control strategy to reduce emissions from contributing sources enough to bring about attainment of the air quality standards, implement the strategy, and take the steps necessary to ensure that the air quality standards are not violated in the future.

The heart of the SIP is the control strategy. The control strategy describes the emission reduction measures to be used by the state to attain and maintain the air quality standards. There are three basic types of measures: stationary source control measures, mobile source control measures, and transportation source control measures. Stationary source control measures are directed at limiting emissions primarily from

commercial/industrial facilities and operations and include the following: emission limits, control technology requirements, preconstruction permit programs for new industry and expansions, and source-specific control requirements. Stationary source control measures also include area source control measures which are directed at small businesses and consumer activities. Mobile source control measures are directed at tailpipe and other emissions primarily from motor vehicles and include the following: Federal Motor Vehicle Emission Standards, fuel volatility limits, reformulated gasoline, emissions control system anti-tampering programs, and inspection and maintenance programs. Transportation source control measures limit the location and use of motor vehicles and include the following: carpools, special bus lanes, rapid transit systems, commuter park and ride lots, bicycle lanes, signal system improvements, and many others.

Federal guidance on states' approaches to the inclusion of control measures in the SIP has varied considerably over the years, ranging from very general in the early years of the Clean Air Act to very specific in more recent years. Many regulatory requirements were adopted in the 1970s when no detailed guidance existed. The legally binding federal mandate for these regulations is general, not specific, consisting of the Clean Air Act's broad-based directive to states to attain and maintain the air quality standards. However, in recent years, the Clean Air Act, along with EPA regulations and policy, has become much more specific, thereby removing much of the states' discretion to craft their own air quality control programs.

Generally, a SIP is revised, as needed, based upon changes in air quality or statutory requirements. For the most part the SIP has worked, and the standards have been attained for most pollutants in most areas. However, attainment of NAAQS for one pollutant--ozone--has proven problematic. While ozone is needed at the earth's outer atmospheric layer to shield out harmful rays from the sun, excess concentrations at the surface have an adverse effect on human health and welfare. Ozone is formed by a chemical reaction between volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight. When VOC and NO_X emissions from mobile sources and stationary sources are reduced, ozone is reduced.

Congress enacted the 1977 Amendments to the Clean Air Act in order to address unsuccessful SIPs and areas that had not attained the NAAQS (that is, nonattainment areas). Although SIP revisions submitted pursuant to the requirements of the 1977 amendments did achieve some progress in eliminating nonattainment areas, some areas remained.

In 1990 Congress once again enacted comprehensive amendments to the Act to address SIP requirements for nonattainment areas. The new Act established a process for evaluating the air quality in each region and identifying and classifying each nonattainment area according to the severity of its air pollution problem. Nonattainment areas are classified as marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification (or class) is subject to successively more stringent control measures. Areas in a higher classification

of nonattainment must meet the mandates of the lower classifications plus the more stringent requirements of their class. In addition to the general SIP-related sanctions, nonattainment areas have their own unique sanctions. If a particular area fails to attain the federal standard by the legislatively mandated attainment date, EPA is required to reassign it to the next higher classification level (denoting a worse air quality problem), thus subjecting the area to more stringent air pollution control requirements. The Clean Air Act includes specific provisions requiring these sanctions to be issued by EPA if so warranted.

The new Act required EPA, based on the air quality data from each state, to propose geographic boundaries and pollution classification levels for all nonattainment areas to each state's governor. If states disagreed with EPA's proposals, they had the opportunity to propose different boundaries; however, EPA had the authority to make the final decision.

The process provided in the new Act yielded three nonattainment areas for Virginia. The classifications for Virginia's nonattainment areas were marginal for the Hampton Roads Nonattainment Area, moderate for the Richmond Nonattainment Area, and serious for the Northern Virginia Nonattainment Area. Since that time, air quality has improved. Although Northern Virginia remains a nonattainment area, Richmond and Hampton Roads have achieved the one-hour ozone standard and are now considered maintenance areas: that is, specific strategies that were implemented must continue; however, no additional new requirements are necessary provided the areas do not measure ozone concentrations in levels high enough to reclassify them into nonattainment.

Once the nonattainment areas were defined, each state was then obligated to submit a SIP demonstrating how it would attain the air quality standards in each nonattainment area. First, the new Act requires that certain specific control measures and other requirements be adopted and included in the SIP; a list of those that necessitated the adoption of state regulations is provided below. In addition, the state had to demonstrate that it would achieve a VOC emission reduction of 15%. Finally, the SIP had to include an attainment demonstration by photochemical modeling (including annual emission reductions of 3% from 1996 to 1999) in addition to the 15% emission reduction demonstration. In cases where the specific control measures shown below were inadequate to achieve the emission reductions or attain the air quality standard, the state was obligated to adopt other control measures as necessary to achieve this end.

ALL AREAS

- correct existing VOC regulatory program (controls on certain sources identified in EPA control technology guidelines)

- requirement for annual statements of emissions from industries

- preconstruction review (permit) program for new industry and expansions (with variable major source definition, variable offset ratio for addition of new pollution, and special requirements for expansions to existing industry in serious areas)

- offset ratio for addition of new pollution of 1.1 to 1

- procedures to determine if systems level highway plans and other federally financed projects are in conformity with air quality plans

MODERATE AND ABOVE AREAS

- requirement for controls for all major (100 tons per year) VOC sources

- requirement for controls for all major (100 tons per year) NO_X sources

- case by case control technology determinations for all major VOC and NO_X sources not covered by a EPA control technology guideline

- offset ratio for addition of new pollution of 1.15 to 1

- requirement for vapor recovery controls for emissions from filling vehicles with gasoline (stage II)

SERIOUS AND ABOVE AREAS

- requirement for controls for all major (50 tons per year) VOC sources

- requirement for controls for all major (50 tons per year) NO_X sources

- offset ratio for addition of new pollution of 1.2 to 1

- enhanced monitoring (source emissions) program

- correct existing motor vehicle emissions inspection and maintenance (I&M) program

- enhanced motor vehicle emissions I&M program

- clean fuel fleet vehicle program

- oxygenated fuels program

SEVERE AND ABOVE AREAS

- requirement for controls for all major (25 tons per year) VOC sources

- requirement for controls for all major (25 tons per year) NO_X sources
- offset ratio for addition of new pollution of 1.3 to 1
- requirement for major sources to pay a penalty fee if area does not attain air quality standard by attainment date
- transportation control strategies and measures to offset emissions growth from VMT

The Clean Air Act mandates that states include in their SIPs certain control measures. Virginia has submitted for federal approval a plan for the Northern Virginia area (formerly classified Serious, now classified Severe) that meets all the requirements for the Serious areas. These federally mandated measures, however, will not fill the gap between air quality goals and actual air quality, so the SIP must now incorporate additional measures as needed to meet the air quality goals. These additional measures have been determined in consultation with locally affected officials, who provide input on control strategy development and associated control measures.

In the Northern Virginia area, the pertinent body of locally affected officials is the Metropolitan Washington Air Quality Committee (MWAQC). MWAQC is the entity certified by the mayor of the District of Columbia and the governors of Maryland and Virginia to prepare an air quality plan for the DC-MD-VA Metropolitan Statistical Area under Section 174 of the federal Clean Air Act Amendments of 1990. Based on the region's current and projected future emissions and other regional data, MWAQC determined that the attached regulations are necessary for the area to meet its emissions reductions and attainment requirements. MWAQC therefore decided on January 23, 2002, that Maryland, Virginia, and Washington, D.C., would adopt the regulations.

Detail of Changes

Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description of changes implemented by the proposed regulatory action. Where applicable, include cross-referenced citations when the proposed regulation is intended to replace an existing regulation.

The proposed regulatory action will add the following new sections:

Portable Fuel Container Spillage Control (Rule 4-42).

9 VAC 5-40-5700. Applicability and designation of affected facility.
9 VAC 5-40-5710. Definitions.
9 VAC 5-40-5720. Standard for volatile organic compounds.
9 VAC 5-40-5730. Administrative requirements.
9 VAC 5-40-5740. Compliance.

9 VAC 5-40-5750. Compliance schedules.
9 VAC 5-40-5760. Test methods and procedures.
9 VAC 5-40-5770. Notification, records and reporting.

Solvent Cleaning (Rule 4-47).

9 VAC 5-40-6820. Applicability and designation of affected facility.
9 VAC 5-40-6830. Definitions.
9 VAC 5-40-6840. Standard for volatile organic compounds.
9 VAC 5-40-6850. Standard for visible emissions.
9 VAC 5-40-6860. Standard for fugitive dust/emissions.
9 VAC 5-40-6870. Standard for odor.
9 VAC 5-40-6880. Standard for toxic pollutants.
9 VAC 5-40-6890. Compliance.
9 VAC 5-40-6900. Compliance schedules.
9 VAC 5-40-6910. Test methods and procedures.
9 VAC 5-40-6920. Monitoring.
9 VAC 5-40-6930. Notification, records and reporting.
9 VAC 5-40-6940. Registration.
9 VAC 5-40-6950. Facility and control equipment maintenance or malfunction.
9 VAC 5-40-6960. Permits.

Mobile Equipment Repair and Refinishing (Rule 4-48).

9 VAC 5-40-6970. Applicability and designation of affected facility.
9 VAC 5-40-6980. Definitions.
9 VAC 5-40-6990. Standard for volatile organic compounds.
9 VAC 5-40-7000. Standard for visible emissions.
9 VAC 5-40-7010. Standard for fugitive dust/emissions.
9 VAC 5-40-7020. Standard for odor.
9 VAC 5-40-7030. Standard for toxic pollutants.
9 VAC 5-40-7040. Compliance.
9 VAC 5-40-7050. Compliance schedule.
9 VAC 5-40-7060. Test methods and procedures.
9 VAC 5-40-7070. Monitoring.
9 VAC 5-40-7080. Notification, records and reporting.
9 VAC 5-40-7090. Registration.
9 VAC 5-40-7100. Facility and control equipment maintenance or malfunction.
9 VAC 5-40-7110. Permits.

Architectural and Industrial Maintenance Coatings (Rule 4-49).

9 VAC 5-40-7120. Applicability and designation of affected facility.
9 VAC 5-40-7130. Definitions.
9 VAC 5-40-7140. Standard for volatile organic compounds.
9 VAC 5-40-7150. Container labeling requirements.
9 VAC 5-40-7160. Standard for visible emissions.
9 VAC 5-40-7170. Standard for fugitive dust/emissions.
9 VAC 5-40-7180. Standard for odor.

9 VAC 5-40-7190. Standard for toxic pollutants.
9 VAC 5-40-7200. Compliance.
9 VAC 5-40-7210. Compliance schedules.
9 VAC 5-40-7220. Test methods and procedures.
9 VAC 5-40-7230. Notification, records and reporting.

Alternatives

Please describe the process by which the agency has considered less burdensome and less intrusive alternatives for achieving the need. Also describe, to the extent known, the specific alternatives to the proposal that have been considered to meet the need, and the reasoning by which the agency has rejected any of the alternatives considered.

As provided in the public participation procedures of the State Air Pollution Control Board, the Department included, in the Notice of Intended Regulatory Action, a description of the Department's alternatives and a request for comments on other alternatives and the costs and benefits of the Department's alternatives or any other alternatives that the commenters provided.

Following the above, alternatives to the proposed regulations were considered by the Department. The Department determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulations.

1. Promulgate the regulations to satisfy the provisions of the law and associated regulations and policies. This option was chosen because it is the least burdensome way to meet the stated purpose of the regulation.

2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option was not chosen because other means of meeting the stated purpose of the regulation would be more burdensome and more intrusive than the first alternative.

3. Take no action to promulgate the regulations. This option was not chosen because Virginia must take action to reduce its VOC emissions in order to meet its obligations under the Clean Air Act.

Public Comment

Please summarize all public comment received during the NOIRA comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.

1. **SUBJECT:** Mobile equipment repair and refinishing regulation

COMMENTER: Pete Petursson, President, and Sheila Loftus, Executive Director, Washington Metropolitan Auto Body Association (WMABA)

TEXT: On page 4, Env-A xxxx.02 Standards, section d, the requirement for documentation concerning the VOC content of coatings is confusing. Is it the paint manufacturer or the paint distributor who needs to provide the documentation? Also, the "National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings," commonly referred to as the National Rule, which became a Final Rule on September 11, 1998, already requires that paint manufacturers comply with those VOC content limits. The paint manufacturers have been using the calculations that are in the MERR since 1998, as they are the same ones that appear in the National Rule. It may be redundant to put the need to calculate the VOC content of the coatings in the MERR, as the National Rule already has this requirement. Therefore, WMABA requests that Virginia strike Env A xxxx.02 Standards section d from the MERR before adoption.

RESPONSE: The department appreciates this very detailed comment and will consider amending the regulation to accommodate it. Before we do so, however, we would like to publish a proposed rule that reflects as closely as possible the model rule on which it is based. Although WMABA is familiar with this model rule, many others have not seen it. Once we collect all the comments submitted on this proposed rule during the public comment period, we will then make decisions about whether and how to amend the regulation to accommodate this comment.

2. **SUBJECT:** Mobile equipment repair and refinishing regulation

COMMENTER: Pete Petursson, President, and Sheila Loftus, Executive Director, Washington Metropolitan Auto Body Association (WMABA)

TEXT: Regarding record keeping of the VOC content of coatings used in automotive refinish, WMABA would like to request that Virginia adopt requirements similar to Maryland's in its regulation "Control of VOC Emissions from Vehicle Refinishing." WMABA worked closely with Maryland and the National EPA when they were drafting their regulations, and WMABA stressed that it would be very burdensome, complicated, and hard to enforce any record keeping requirement that involves tracking the VOCs used per job. Maryland, in section H of its regulation "Control of VOC Emissions from Vehicle Refinishing" requires that automotive refinish businesses "maintain monthly records of the total volume and VOC content of each: Coating purchased for which standards are specified in...this regulation."

RESPONSE: See response to comment #1.

3. **SUBJECT:** Mobile equipment repair and refinishing regulation

COMMENTER: Pete Petursson, President, and Sheila Loftus, Executive Director, Washington Metropolitan Auto Body Association (WMABA)

TEXT: On page 5 of the MERR, section h (4), WMABA would like to request that training be changed to "paint-manufacturer-approved training," in order to ensure that

the training provided to refinishers correctly and completely covers the information about how to use and handle the coatings, solvents, and waste products.

RESPONSE: See response to comment #1.

4. **SUBJECT:** Mobile equipment repair and refinishing regulation

COMMENTER: Pete Petursson, President, and Sheila Loftus, Executive Director, Washington Metropolitan Auto Body Association (WMABA)

TEXT: On page 5, in Env-A xxxx.02 Standards of the MERR, section f (3), WMABA would like to request that the language "used by a consumer" be added at the end of the sentence. WMABA requests the additional language so that consumers who use a small bottle of touch-up paint to cover stone chips will remain exempt from this regulation, but the for-profit companies that refinish small dents and imperfections will not be exempt from this regulation. There are many companies that are paid to touch-up dings in dealership parking lots, many of whom use a great deal of paint because of the volume of vehicles that they refinish, and those companies should not be exempt from this regulation.

RESPONSE: See response to comment #1.

5. **SUBJECT:** Mobile equipment repair and refinishing regulation

COMMENTER: Pete Petursson, President, and Sheila Loftus, Executive Director, Washington Metropolitan Auto Body Association (WMABA)

TEXT: On page 3, in Env-A xxxx.02 Standards of the MERR, section b (3), WMABA would like to know why hobbyists are exempt from the legislation. Hobbyists and restoration shops, most of which use lacquer topcoats, are already granted the higher VOC pounds per gallon of the Automotive specialty coatings in the MERR. Lacquer is exempt from regulation under the National Rule, section IV, B. Hobbyists should not be exempt from the housekeeping regulations nor from using application techniques that increase the transfer efficiency of the coatings.

RESPONSE: See response to comment #1.

6. **SUBJECT:** Mobile equipment repair and refinishing regulation

COMMENTER: Pete Petursson, President, and Sheila Loftus, Executive Director, Washington Metropolitan Auto Body Association (WMABA)

TEXT: On page 5, In Env A xxxx.02 Standards of the MERR, section a (10), WMABA is concerned that demonstrating to the Department that an application method achieves emission reductions equivalent to HVLP or electrostatic spray application methods may delay the adoption of new methods of application that may have an even

greater transfer efficiency than the two methods mentioned above. WMABA would like to request that Virginia accept any application method that achieves emission reductions equal to or greater than HVLP without having the manufacturer have to demonstrate that ability on a state-by-state basis.

RESPONSE: See response to comment #1.

7. **SUBJECT:** Additional NOx sources regulation

COMMENTER: Leonard R. Dupuis, Manager, Environmental Policy, Dominion

TEXT: The electric utility industry is already bearing a significant portion of emission reductions needed to address ozone nonattainment in Northern Virginia with the imposition of the state's 0.15 lb/mmBtu ozone season average NOx emission limit beginning in May 2003 and the seasonal NOx emission caps under the NOx SIP Call beginning in May 2004. In addition, EPA has proposed a second phase of the regional NOx SIP Call that will already require additional NOx emission reductions from reciprocating engines. For these reasons, we believe the DEQ's efforts toward achieving additional emission reductions in the Northern Virginia area should not consider additional measures for stationary sources before thorough evaluation of the other mechanisms listed in the NOIRA.

RESPONSE: The regulation for additional NOx sources has been dropped from this regulatory development action (Rev. C02). The regulation may be restarted later as a separate action.

Clarity of the Regulation

Please provide a statement indicating that the agency, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

The Department, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

Periodic Review

Please supply a schedule setting forth when the agency will initiate a review and re-evaluation to determine if the regulation should be continued, amended, or terminated. The specific and measurable regulatory goals should be outlined with this schedule. The review shall take place no later than three years after the proposed regulation is expected to be effective.

The Department will initiate a review and re-evaluation of the regulations to determine if they should be continued, amended, or terminated within three years after their effective date.

The specific and measurable goals the proposed regulations are intended to achieve are as follows:

1. To protect public health and/or welfare with the least possible cost and intrusiveness to the citizens and businesses of the Commonwealth.

2. To ensure that owners comply with air pollution emission limits and control technology requirements in order to control levels of volatile organic compound emissions being emitted into the ambient air.

3. To prohibit emissions which would contribute to nonattainment of the national air quality standards or interference with maintenance of the standards.

Family Impact Statement

Please provide an analysis of the proposed regulatory action that assesses the potential impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

It is not anticipated that these regulations will have a direct impact on families. However, there will be positive indirect impacts in that the regulations will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.