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Periodic Review and Small Business Impact Review Report of Findings

Agency name	State Air Pollution Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9VAC5-45 Part I, Special Provisions Part II, Emission Standards: Article 1, Emission Standards for Portable Fuel Containers and Spouts Manufactured before August 1, 2010 Article 2, Emission Standards for Portable Fuel Containers and Spouts Manufactured on or after August 1, 2010 Article 3, Emission Standards for Consumer Products Manufactured before August 1, 2010 Article 4, Emission Standards for Consumer Products Manufactured on or after August 1, 2010 Article 5, Emission Standards for Architectural and Industrial Maintenance Coatings Article 6, Emission Standards for Adhesives and Sealants Article 7, Emission Standards for Asphalt Paving Operations
VAC Chapter title(s)	Consumer and Commercial Products:
Date this document prepared	July 14, 2022

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1VAC7-10), and the **Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code**.

Acronyms and Definitions

Define all acronyms used in this Report, and any technical terms that are not also defined in the "Definitions" section of the regulation.

CAA - Clean Air Act

CFR - Code of Federal Regulation
CTG - control techniques guideline
NAAQS - National Ambient Air Quality Standards
NO_x - nitrogen oxides
OTR - Ozone Transport Region
RACT - reasonably available control technology
SIP state implementation plan
VOC - volatile organic compound

Legal Basis

Identify (1) the promulgating agency, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating agency to regulate this specific subject or program, as well as a reference to the agency's overall regulatory authority.

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.

Promulgating Entity

The promulgating entity for this regulation is the State Air Pollution Control Board.

Federal Requirements

For Part II, Articles 1 through 6:

Sections 109 (a) and (b) of the Clean Air Act (CAA) require EPA to prescribe primary and secondary air quality standards to protect public health and welfare. 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 § 108.

Once the NAAQS are promulgated pursuant to § 109, § 107(d) sets out a process for designating those areas that are in compliance with the standards (attainment or unclassifiable) and those that are not (nonattainment). Governors make the initial recommendations but EPA makes the final decision. Section 107(d) also sets forth the process for redesignations once the nonattainment areas are in compliance with the applicable NAAQS.

For Part I, Special Provisions and Part II, Articles 1 through 7:

Section 110(a) of the 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 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, 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) of 40 CFR Part 51 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) of 40 CFR Part 51 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) of 40 CFR Part 51 specifies that the state implementation plan must show that the state has legal authority to implement the plans, including the authority to:

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 of 40 CFR Part 51 requires the identification of legal authority: (i) 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 (ii) 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) of 40 CFR Part 51 specifies legally enforceable compliance schedules, final compliance schedule dates, and conditions for extensions beyond one year.

For Part I, Special Provisions:

Appendix M (Recommended Test Methods for State Implementation Plans) of 40 CFR Part 51 provides recommended test methods for measuring air pollutants which a state may choose to meet the requirements of Subpart K. The state may also choose to meet the requirements of Subpart K through any of the relevant methods in Appendix A of 40 CFR Part 60 or any other method that could be approved and adopted into the state implementation plan.

Appendix P (Minimum Emission Monitoring Requirements) of 40 CFR Part 51 specifies the minimum requirements for continuous emission monitoring and recording.

For Part II, Articles 1 through 6:

Part D of the CAA specifies state implementation plan requirements for nonattainment areas, with Subpart 1 covering nonattainment areas in general and Subpart 2 covering additional provisions for ozone nonattainment areas.

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

Section 172(a) of the CAA 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) of the CAA 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.

Section 107(d)(3)(D) of the CAA provides that a state may petition EPA to redesignate a nonattainment area as attainment and EPA may approve the redesignation subject to certain criteria being met. Section 107(d)(3)(E) stipulates one of these criteria, that EPA must fully approve a maintenance plan that meets the requirements of § 175A.

According to § 175A(a) of the CAA, the maintenance plan must be part of a SIP submission, and must provide for maintenance of the NAAQS for at least 10 years after the redesignation. The plan must contain any additional measures, as needed, to ensure maintenance. Section 175A(b) further requires that 8 years after redesignation, a maintenance plan for the next 10 years must then be submitted. As stated in § 175A(c), nonattainment requirements continue to apply until the SIP submittal is approved. Finally, § 175A(d) requires that the maintenance plan contain contingency provisions which will be implemented should the area fail to maintain the NAAQS as provided for in the original plan.

Under Part D, Subpart 2 of the CAA, § 181 sets forth the classifications and nonattainment dates for 1-hour ozone nonattainment areas once they are designated as such under § 107(d). Subpart 2, §182(a)(2)(A) of the CAA requires that the existing regulatory program requiring reasonably available control technology (RACT) for stationary sources of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) 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 techniques guidelines (CTGs) for various types of sources, thereby defining the minimum acceptable control measure or RACT for a particular source type.

Section 182(b) of the CAA 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. § 182(b)(2)(C) requires RACT controls on major VOC stationary sources not covered by an existing control technology guideline (non-CTG sources).

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

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 from commercial products in ozone nonattainment areas. EPA issued such a list on March 23, 1995, and has revised the list periodically. RACT controls for listed source categories controlled by a CTG are known as CTG RACTs. States with moderate ozone nonattainment areas must implement CTG RACTs as part of their attainment SIPs.

Section 184 of the CAA establishes an Ozone Transport Region (OTR) comprised of the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the Consolidated Metropolitan Statistical Area that includes parts of northern Virginia and the District of Columbia. The Ozone Transport Commission is to assess the degree of interstate transport of the pollutant or precursors to the pollutant throughout the transport region, assess strategies for mitigating the interstate pollution, and to recommend control measures to ensure that the plans for the relevant States meet the requirements of the Act.

Section 184(b) of the CAA describes SIP requirements for areas in the OTR, including, in § 184(b)(2), the requirement that any stationary source that emits or has the potential to emit at least 50 tons per year of

VOCs is considered to be a major source and subject to the requirements that would be applicable to major sources as if the area were classified as a moderate nonattainment area. Finally, a major stationary source is defined for general application in § 302 as "any facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant"; hence the major source threshold for NO_x is 100 tons per year.

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 CAA Amendments of 1990" (see 57 FR 13498 and 57 FR 18070).

40 CFR Part 81 specifies the designations of areas made under § 107(d) of the CAA and the associated nonattainment classification (if any) under § 181 of the CAA or 40 CFR 51.903(a), as applicable. On April 30, 2004 (69 FR 23858), EPA published its final decision as to the 8-hour nonattainment areas and associated classifications. The new designations are effective June 15, 2004. The Commonwealth of Virginia designations are in 40 CFR 81.347.

On April 30, 2004 (69 FR 23951), EPA published phase 1 of its final rule adding Subpart X to 40 CFR Part 51. Subpart X contains the provisions for the implementation of the 8-hour ozone NAAQS, along with the associated planning requirements and requires that nonattainment areas meet the requirements of 40 CFR 51.900(f), including RACT and major source applicability cut-offs for purposes of RACT. The rule also specifies dates by when states must submit the RACT SIP, and when RACT must be implemented. Specifically, 40 CFR 51.903(a) sets forth the classification criteria and nonattainment dates for 8-hour ozone nonattainment areas once they are designated as such under 40 CFR Part 81. The remainder of the planning requirements (phase 2) were published on November 29, 2005 (70 FR 71612).

In order to implement the control measures needed to attain and maintain the ozone air quality standard, Virginia established VOC and NO_x emissions control areas in 9VAC5-20-206. These areas were created to provide a legal mechanism for defining geographic areas in which to implement certain control measures to attain and maintain the air quality standards for ozone. The emissions control areas may or may not coincide with the nonattainment areas, depending on regional planning requirements.

State Requirements

Code of Virginia § 10.1-1300 defines 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 of life or property." Excess emissions from automobile and light duty truck coating application system operations are harmful to human health and can significantly interfere with the people's enjoyment of life and property.

Code of Virginia § 10.1-1307 A provides that the board may, among other activities, develop a comprehensive program for the study, abatement, and control of all sources of air pollution in the Commonwealth.

Code of Virginia § 10.1-1308 provides that the board shall have the power to promulgate regulations abating, controlling, and prohibiting air pollution throughout or in any part of the Commonwealth in accordance with the provisions of the Administrative Process Act.

Alternatives to Regulation

Describe any viable alternatives for achieving the purpose of the regulation that were considered as part of the periodic review. Include an explanation of why such alternatives were rejected and why this regulation is the least burdensome alternative available for achieving its purpose.

Alternatives to the proposal have been considered by the department. The department has determined that the retention of the regulation (the first alternative) is appropriate, as it is the least burdensome and least intrusive alternative that fully meets statutory requirements and the purpose of the regulation. The alternatives considered by the department, along with the reasoning by which the department has rejected any of the alternatives considered, are discussed below.

1. Retain the regulation without amendment. This option is being selected because the current regulation provides the least onerous means of complying with the minimum requirements of the legal mandates.
2. Make alternative regulatory changes to those required by the provisions of the legally binding state and federal mandates, and associated regulations and policies. This option was not selected because it could result in the imposition of requirements that place unreasonable hardships on the regulated community without justifiable benefits to public health and welfare.
3. Repeal the regulation or amend it to satisfy the provisions of legally binding state and federal mandates. This option was not selected because the regulation is effective in meeting its goals and already satisfies those mandates.

Public Comment

Summarize all comments received during the public comment period following the publication of the Notice of Periodic Review, and provide the agency response. Be sure to include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency. Indicate if an informal advisory group was formed for purposes of assisting in the periodic review.

No informal advisory group was formed for purposes of assisting in the periodic review.

No comments were received.

Effectiveness

Pursuant to § 2.2-4017 of the Code of Virginia, indicate whether the regulation meets the criteria set out in Executive Order 14 (as amended, July 16, 2018), including why the regulation is (a) necessary for the protection of public health, safety, and welfare, and (b) is clearly written and easily understandable.

The regulation is necessary for the protection of public health and welfare, as it is needed to meet the primary goals of the CAA: the attainment and maintenance of the NAAQS, and the prevention of significant deterioration of air quality in areas cleaner than the 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 ambient air in order to protect public health and welfare. EPA requires that each state submit a State Implementation Plan (SIP), including any laws and regulations necessary to enforce the plan, which 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 CAA 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 CAA 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 limit emissions primarily from commercial/industrial facilities and operations and include 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 Federal Motor Vehicle Emission Standards, fuel volatility limits, and inspection and maintenance programs. Transportation control measures limit the location and use of motor vehicles and include carpools, special bus lanes, rapid transit systems, commuter park and ride lots, 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 CAA 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 CAA, 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.

Once a nonattainment area is defined, each state is obligated to submit a SIP demonstrating how it will attain the air quality standards in each nonattainment area. First, the CAA requires that certain specific control measures and other requirements be adopted and included in the SIP; a list of those requirements 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.

For all areas in Virginia:

1. Correct existing VOC regulatory program (controls on certain sources identified in EPA control technology guidelines).
2. Requirement for annual statements of emissions from industries.
3. 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).
4. Procedures to determine if systems level highway plans and other federally financed projects are in conformity with air quality plans.

For all nonattainment areas classified as “moderate” and above:

1. Requirement for controls for all major (100 tons per year) VOC sources.
2. Requirement for vapor recovery controls for emissions from filling vehicles with gasoline (stage II).
3. Requirement for controls for all major (100 tons per year) NO_x sources.
4. Case by case control technology determinations for all major VOC and NO_x sources not covered by an EPA control technology guideline.

Therefore, these specific SIP provisions, including implementation of the compliance, testing, monitoring, and recordkeeping provisions of this regulation that are generally applicable to all existing stationary sources in the Commonwealth, are necessary for the protection of public health and welfare.

In summary, the regulations have been effective in protecting public health and welfare with the least possible cost and intrusiveness to the citizens and businesses of the Commonwealth, ensuring that owners comply with air pollution emission limits and control technology requirements in order to prohibit emissions that would contribute to nonattainment of the national air quality standards or interfere with the maintenance of those standards. The specific pollutant being effectively controlled under this regulation is one of the ozone-precursors, volatile organic compounds.

The department has determined that these regulations are clearly written and easily understandable by the individuals and entities affected. They are written so as to permit only one reasonable interpretation, are written to adequately identify the affected entity, and, insofar as possible, are written in non-technical language.

Decision

Explain the basis for the promulgating agency’s decision (retain the regulation as is without making changes, amend the regulation, or repeal the regulation).

This regulation satisfies the provisions of the law and legally binding state and federal requirements, and is effective in meeting its goals; therefore, the regulation is being retained without amendment.

Small Business Impact

As required by § 2.2-4007.1 E and F of the Code of Virginia, discuss the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation; (3) the complexity of the regulation; (4) the extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation. Also, discuss why the agency's decision, consistent with applicable law, will minimize the economic impact of regulations on small businesses.

This regulation continues to be needed. It provides sources with the most cost-effective means of fulfilling ongoing state and federal requirements that protect air quality.

No comments were received that indicate a need to repeal or revise the regulation.

The regulation's level of complexity is appropriate to ensure that the regulated entities are able to meet their legal mandates as efficiently and cost-effectively as possible.

This regulation does not overlap, duplicate, or conflict with any state law or other state regulation.

The regulation was last reviewed in 2018.

Family Impact

Please assess the potential impact of the regulation's impact on the institution of the family and family stability.

No direct impacts to families are anticipated.
