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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)	9VAC5-50, New and Modified Stationary Sources: Part I, Special Provisions Part II, Emission Standards: Article 1, Standards of Performance for Visible Emissions and Fugitive Dust/Emissions Article 2, Standards of Performance for Odorous Emissions Article 4, Standards of Performance for Stationary Sources Article 5, Environmental Protection Agency Standards of Performance for New Stationary Sources
VAC Chapter title(s)	Regulations for the Control and Abatement of Air Pollution
Date this document prepared	

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19, the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), 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 Regulations
EPA - U.S. Environmental Protection Agency
NAAQS - National Ambient Air Quality Standard
NSPS - New Source Performance Standard
SIP - State Implementation Plan

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 these regulations is the State Air Pollution Control Board.

Federal Requirements

For Part I, Special Provisions and Part II, Articles 1 and 4:

Section 110(a) of the federal 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 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.

For Part I, Special Provisions:

Section 110(j) of the CAA specifies that, as a condition for issuance of any permit required under this title, the owner or operator of each new or modified stationary source which is required to obtain such a permit must show to the satisfaction of the permitting authority that the technological system of continuous emission reduction which is proposed will enable the source to comply with the standards of performance which are to apply to the source and that the construction or modification and operation of the source will be in compliance with all other requirements of the CAA.

For Part I, Special Provisions and Part II, Article 4:

Section 123 of the CAA establishes the criteria for determining the stack height for stationary sources of air pollution in existence before 1970. Specifically the section requires that "the degree of emission limitation required of any source for control of any air pollutant under an applicable implementation plan...must not be affected in any manner by:

1. So much of any source's stack height that exceeds good engineering practice (as determined under regulations promulgated by the Administrator), or
2. Any other dispersion technique."

For purposes of this section the term "dispersion technique" includes any intermittent or supplemental control of air pollutants varying with atmospheric conditions. Good engineering practice means, with respect to stack height, the height necessary to insure that emissions from the stack do not result in excessive concentrations of any pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain obstacles.

For Part I, Special Provisions and Part II, Articles 1 and 4:

40 CFR Part 50 specifies the NAAQS: sulfur dioxide, particulate matter, carbon monoxide, ozone (its precursors are nitrogen oxides and 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 of 40 CFR Part 51 (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.

For Part I, Special Provisions and Part II, Article 4:

Section 51.118 of Subpart G sets out stack height requirements. Section 51.118 requires that the plan submitted by the state must provide that "the degree of emission limitation required of any source for control of any air pollutant must not be affected by so much of any source's stack height that exceeds good engineering practice or by any other dispersion technique." Facilities with stacks in existence after December 31, 1970 must follow good engineering practice.

For Part I, Special Provisions and Part II, Articles 1 and 4:

Subpart I of 40 CFR Part 51 (Review of New Sources and Modifications) specifies legally enforceable procedures, public availability of information on sources, identification of responsible agency, administrative procedures, stack height procedures, permit requirements, and requirements for prevention of significant deterioration of air quality.

Subpart K of 40CFR Part 51 (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 of 40 CFR Part 51 (Legal Authority) 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 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 of 40 CFR Part 51 (Compliance Schedules) 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 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 to 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 Part 51 specifies the minimum requirements for continuous emission monitoring and recording.

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 new and modified stationary sources 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.

For Part II, Article 2:

The specific provisions in Article 2 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" (Code of Virginia § 10.1-1308 A).

For Part II, Article 5:

Section 111(b) of the CAA requires that EPA develop new source performance standards (NSPS). Section 111(c)(1) provides that each state may develop and submit to EPA a procedure for implementing and enforcing the NSPSs. If EPA finds the state procedures adequate, the state is delegated the authority to implement and enforce the NSPSs. EPA implements this part of the CAA through 40 CFR Part 60, which contains the NSPSs. Part 60 contains provisions regarding notification and recordkeeping, performance tests, availability of information, state authority, compliance with standards and maintenance requirements, circumvention, monitoring requirements, modifications, reconstruction, and general control device requirements, as well as numerous test methods and performance specifications. In accordance with the CAA, Virginia has sought and received delegation of the NSPS program from EPA., which means that the federal standards are implemented and enforced by the state.

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 regulations (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 regulations. 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 regulations without amendment. This option is being selected because the current regulations 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 regulations or amend them to satisfy the provisions of legally binding state and federal mandates. This option was not selected because the regulations are effective in meeting their goals and already satisfy 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’s 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.

Commenter	Comment	Agency response
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<p>Kathy</p>	<p>Retain and make stronger: Yes, reporting, records, and notification need to remain in place. We must keep track of emissions and hold folks accountable.</p>	<p>The agency agrees that the regulations are needed for the protection of public health and welfare and should be retained.</p>
<p>Southern Environmental Law Center</p>	<p>The New and Modified Stationary Source regulations are fundamental to Virginia's implementation of the Clean Air Act. These regulations are a key part of how Virginia meets the National Ambient Air Quality Standards, and are critical safeguards for public health and welfare. These regulations should not be weakened in any way. To do so would public health and the environment at risk.</p>	<p>The agency agrees that the regulations are needed for the protection of public health and welfare and should be retained.</p>
<p>Sierra Club</p>	<p>A study by EPA scientists published in the American Journal of Public Health found that facilities emitting dangerous particulate air pollution disproportionately impact low-income communities and communities of color. After assessing particulate matter emissions from facilities in a nationwide study -- and the characteristics of the communities at the highest risk of health consequences due to exposure to it -- the study found that communities living below the poverty line have a 35% higher burden from particulate matter emissions than the overall population. Non-whites had a 28% higher health burden and African Americans, specifically, had a 54% higher burden than the overall population. For these reasons, the New and Modified Stationary Source regulations are key to retaining cleaner air and better health for communities in Virginia. The regulations should be retained and strengthened where possible through priority on health impacts to human beings. This regulation is necessary for the protection of public health, safety, and welfare.. The regulations are fundamental to Virginia's implementation of the Clean Air Act. This regulation is a key part of</p>	<p>The agency agrees that the regulation is needed for the protection of public health and welfare and should be retained. Implementation of this regulation and all regulations of the board is subject to the Virginia Environmental Justice Act, which requires that the Commonwealth promote environmental justice and ensure that it is carried out throughout the Commonwealth, with a focus on environmental justice communities and fenceline communities.</p>

	<p>how Virginia meets the NAAQS, and are critical safeguards for public health and welfare. They should not be weakened in any way. To do so, would put public health and the environment at risk. There are many possibilities for strengthening the regulations for impacted communities. We recommend as part of the New and Modified Stationary Source regulations the incorporation of tools such as EPA's new EJ Screening Tool, or other similar tools, to be utilized to analyze the impacts to BIPOC communities and low-income communities.</p>	
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Effectiveness

Pursuant to § 2.2-4017 of the Code of Virginia, indicate whether the regulation meets the criteria set out in the ORM procedures, including why the regulation is (a) necessary for the protection of public health, safety, and welfare, and (b) is clearly written and easily understandable.

These regulations are necessary for the protection of public health and welfare, as they are needed to meet the primary goals of the federal Clean Air Act: the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS), the prevention of significant deterioration of air quality in areas cleaner than the NAAQS, the prevention visibility impairment in Class I areas, and the control of source-specific pollutant types.

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 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. Of the basic types of measures, 9VAC5-50 addresses stationary 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.

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

In contrast to the pollutant-specific focus of the § 110 NAAQS/SIP program, the § 111 NSPS program focuses on specific source types. An NSPS facility may emit varying levels of NAAQS pollutants, but may also emit pollutants unique to its processes and products. For example, large municipal waste combustors emit sulfur dioxide and nitrogen oxides, which are subject to NAAQS, but also emit metals (such as cadmium and mercury), acid gases (such as hydrogen chloride), and organics (such as dioxin/furan). This focused control of emissions on certain facility types is important for the protection of public health and welfare as it affords targeted controls of pollutants otherwise not covered by a specific standard.

In summary, these 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. The following specific pollutants are being effectively controlled under these regulations:

Part I and Part II, Articles 1 and 4: Visible emissions, fugitive dust, and fugitive emissions.

Part I and Part II, Articles 4 and 5: Particulate matter, carbon monoxide, sulfur dioxide, nitrogen oxides, volatile organic compounds, lead, hydrogen sulfide, fluorides, sulfuric acid mist, total reduced sulfur, nonmethane organic compounds; other pollutants depending on process category.

Part I and Part II, Articles 2 and 4: Odor-causing emissions.

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).

If the result of the periodic review is to retain the regulation as is, complete the ORM Economic Impact form.

These regulations satisfy the provisions of the law and legally binding state and federal requirements, and are effective in meeting their goals; therefore, the regulations are 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.

These regulations continue to be needed. They provide sources with the most cost-effective means of fulfilling ongoing state and federal requirements that protect air quality.

The regulations' 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.

These regulations do not overlap, duplicate, or conflict with any state law or other state regulation.

The regulations were last reviewed in 2018. Over time, it generally becomes less expensive to characterize, measure, and mitigate the regulated pollutants that contribute to poor air quality. The regulations continue to provide the most efficient and cost-effective means to determine the level and impact of excess emissions and to control those excess emissions.

The department has thoroughly examined the regulations, and has determined that the regulatory requirements currently minimize the economic impact of emission control regulations on small businesses and thereby minimize the impact on existing and potential Virginia employers and their ability to maintain and increase the number of jobs in the Commonwealth.
