



Periodic Review / Retain Regulation Agency Background Document

Agency name	State Air Pollution Control Board
Virginia Administrative Code (VAC) citation	9VAC5-50: Part I, Special Provisions Article 2, Standards of Performance for Odorous Emissions Article 4, Standards of Performance for Stationary Sources Article 6, Standards Of Performance For Regulated Medical Waste Incinerators
Regulation title	New and Modified Stationary Sources
Document preparation date	November 7, 2011

This form is used when the agency has done a periodic review of a regulation and plans to retain the regulation without change. This information is required pursuant to Executive Orders 14 (2010) and 58 (1999).

Legal basis

Please identify the state and/or federal legal authority for the regulation, including (1) the most relevant law and/or regulation, and (2) promulgating entity, i.e., agency, board, or person.

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 and Article 4

Section 110(a) of the federal Clean Air Act mandates that each state adopt and submit to the U.S. Environmental Protection Agency (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 Act, 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.

Section 110(j) 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 Act.

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 F (Procedural Requirements) specifies definitions of key terms, stipulations and format for plan submission, requirements for public hearings, and conditions for plan revisions and federal approval.

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. Section 51.118 of Subpart G sets out stack height requirements.

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

Appendix M (Recommended Test Methods for State Implementation Plans) 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) 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 the various types of facilities covered under Chapter 50 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.

In addition, for Article 6:

Chapters 773, 774, and 751 of the 1992 Acts of the General Assembly required the board to promulgate regulations affecting regulated medical waste incinerators. The 1992 General Assembly of Virginia passed legislation to require the promulgation of regulations by September 1, 1993. This legislation was resubmitted to the General Assembly in the 1993 session. The law states, "The State Air Pollution Control Board and the

Virginia Waste Management Board shall each promulgate the regulations with respect to the permitting of infectious waste incinerators . . . by September 1, 1993, or as soon as practicable thereafter within the constraints of the Administrative Process Act (§ 9-6.14:1 et seq.)." Factors to be considered by both boards included:

1. an assessment of the annual need for the disposal of infectious waste generated in the Commonwealth;
2. means of reducing the volume of infectious waste and similar wastes containing or producing toxic substances disposed of in the Commonwealth;
3. the availability and feasibility of methods of disposing of infectious waste other than incineration;
4. criteria for siting infectious waste incinerators in order to safeguard public health and safety to the maximum extents;
5. standards for assessing the economic feasibility of proposed commercial infectious waste incinerators;
6. the propriety of establishing different criteria and procedures for the permitting of incinerators disposing of infectious waste generated on-site or off-site;
7. the economic demand for the importation of infectious waste generated outside the Commonwealth to existing and future commercial infectious waste incinerators located in the Commonwealth, and an estimate of the fair share of incinerator capacity to be allowed for infectious waste generated outside the Commonwealth;
8. the impact of the Clean Air Act (42 USC § 1857 et seq.), as amended by the 1990 amendments (PL 101-549), on the incineration of infectious waste by hospitals; and
9. the impact of reports by the Environmental Protection Agency to the Congress of the United States regarding the Medical Waste Tracking Act of 1988 (PL100-582).

Alternatives

Please describe all viable alternatives for achieving the purpose of the existing regulation that have been considered as part of the periodic review process. Include an explanation of why such alternatives were rejected and why this regulation is the least burdensome alternative available for achieving the purpose of the regulation.

Alternatives for achieving the purpose of the regulations 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 purposes 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 provide 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 satisfies those mandates.

Public comment

Please summarize all comments received during the public comment period following the publication of the Notice of Periodic Review, and provide the agency response. Please indicate if an informal advisory group was formed for purposes of assisting in the periodic review.

Commenter	Comment	Agency response
Appalachian Power/American Electric Power	We recommend the agency not change any of the applicable requirements within Parts I and II and Article 4 applicable to existing sources in operation prior to 1972. Any new requirements that became applicable are in the permitting requirements included in 9VAC5-50 and 9VAC5-80. Many of these requirements are included into the Title V permits required under 9VAC5-80 Articles 1 and 5, as applicable.	We agree with the commenter that there is no need to revise those provisions of 9VAC5-50 at this time.

An informal advisory group was no formed to assist with conducting the periodic review.

Effectiveness

Please indicate whether the regulation meets the criteria set out in Executive Order 14 (2010), e.g., is necessary for the protection of public health, safety, and welfare, and is clearly written and easily understandable.

The 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 and the Air Pollution Control Law, as discussed below.

For Part I and Article 4:

One of the primary goals of the Act is the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and the prevention of significant deterioration (PSD) 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 outside ambient air in order to protect public health and welfare. 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 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 source control measures limit the location and use of motor vehicles and include special bus lanes, rapid transit systems, and commuter park and ride lots.

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 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 Act's broad-based directive to states to attain and maintain the air quality standards. However, in recent years, the 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 these regulations, are necessary for the protection of public health and welfare.

For Article 2:

Although no statute specifically mandates this regulation, it was adopted in order to implement the broad directive set forth in the Virginia Air Pollution Control Law to control and abate air pollution throughout the Commonwealth, and to protect public welfare. Offensive odors discourage capital investment and lower an area's socioeconomic status. Odors have been shown to interfere with daily activity, discourage facility use, and lead to a decline in property values, tax revenues, and payroll. Therefore, the regulation continues to be needed in order to protect public welfare.

For Article 6:

The regulation is necessary for the protection of public health and welfare. The General Assembly passed legislation directly addressing medical waste incinerators for a number of reasons:

1. The board had not promulgated air pollution permit regulations specifically addressing medical waste incinerators.
2. The board had been issuing numerous permits for medical waste incinerators.
3. The total regulated medical waste generated in the Commonwealth averaged between 35 and 45 tons per day. It was believed at that time that sufficient capacity within the Commonwealth to dispose of such waste existed.
4. The incineration of regulated medical waste generates toxic or trace metals, dioxins and furans, acid gases, particulate matter, and pathogens, which can adversely affect human health and the environment.

For all articles:

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 control, depending on the specific regulation, levels of particulate matter, sulfur dioxide, hydrogen sulfide, toxics, pathogens, and odorous emissions being emitted into the ambient air, and prohibiting emissions that would contribute to nonattainment of the national air quality standards or interference with maintenance of those standards.

The department has determined that the 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.

Small business impact

In order to minimize the economic impact of regulations on small business, please include, pursuant to § 2.2-4007.1 E and F, a discussion of the agency's consideration of: (1) the continued need for the regulation; (2) the complexity of the regulation; (3) the extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (4) 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, include a discussion of the agency's determination whether the regulation should be amended or repealed, consistent with the stated objectives of applicable law, to 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.

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

The regulations were last reviewed as follows: 2001 (Articles 2 and 6), and 2006 (Part I and Article 4). Since these prior reviews, it has gotten generally less expensive to characterize, measure, and mitigate the regulated pollutants that contribute to poor air quality. This regulation continues 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, through examination of the regulations and relevant public comments, 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.

Result

Please state whether the agency is recommending that the regulation should stay in effect without change.

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.

Family impact

Please provide an analysis of the regulation's impact on the institution of the family and family stability.

It is not anticipated that the 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 programs will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

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