Virginia Regulatory Town Hall

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Periodic Review / Retain Regulation
Agency Background Document

Agency name	State Air Pollution Control Board
Virginia Administrative Code (VAC) citation	9VAC5-40: Part I, Special Provisions Article 2, Emission Standards for Odor Article 4, Emission Standards for General Process Operations Article 8, Emission Standards for Fuel Burning Equipment Article 15, Emission Standards for Coal Preparation Plants Article 37, Emission Standards for Petroleum Liquid Storage and Transfer Operations Article 43, Emission Standards for Municipal Solid Waste Landfills Article 46, Emission Standards for Small Municipal Waste Article 47, Emission Standards for Solvent Metal Cleaning Operations in the Northern Virginia VOC Emissions Control Area Article 48, Emission Standards for Mobile Equipment Repair and Refinishing Operations Article 52, Emission Standards for Stationary Sources Subject to Case-by-Case BART Determinations Article 53, Emission Standards for Lithographic Printing Processes Article 54, Emission Standards for Large Municipal Waste Combustors
Regulation title	Existing 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 this regulation is the State Air Pollution Control Board.

Federal Requirements for Part I and Articles 4, 8, 15, 43

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.

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 K (Source Surveillance) specifies procedures for emissions reports and recordkeeping, 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 recordkeeping 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.

In addition, for Articles 37, 43, 47, 48, 53:

Part D of the Clean Air Act 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 Clean Air Act 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.

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" (see 57 FR 13498 and 57 FR 18070).

Federal Requirements for Article 52:

Section 169(A) of the federal Clean Air Act addresses visibility protection for federal class I areas. Section 169A(a) provides a timetable for analysis of federal class I areas and subsequent publication of guidelines for states. Section 169A(b) requires EPA to provide regulations and guidelines for state implementation of BART. Section 169A(c) provides for establishing exemptions for major stationary sources from Best Available Retrofit Technology (BART). Section 169A(d) provides for state consultation with federal land managers. Sections 169A(e) and (f) provide additional guidance to the EPA in administering BART. Section 169A(g) provides considerations and terms for making BART determinations.

40 CFR 51.166 requires that SIPs contain emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality. Visibility is specifically addressed in 40 CFR 51.166(o) and (p). In 1999, EPA published a final rule to address regional haze (64 FR 35714), including case-by-case determination of Best Available Retrofit Technology (BART). BART is required for any BART-eligible source that emits any air pollutant that may reasonably be anticipated to cause or contribute to visibility impairment in any Class I area. Accordingly, for stationary sources meeting these criteria, states must address the BART requirement when developing regional haze SIPs.

On July 6, 2005 (70 FR 39103), EPA promulgated final amendments to the regional haze regulations (40 CFR 51.302 and 51.308), and BART determination guidance (Appendix Y to 40 CFR Part 51). The purpose of the guidelines is to assist states as they identify which of their BART-eligible sources should undergo a BART analysis, and select controls. 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.

Federal Requirements for Articles 43, 46, 54

Emissions from landfills and certain categories of incinerators are "designated" pollutants under § 111(d) of the federal Clean Air Act. Designated pollutants are pollutants which are not included on a list published under § 108(a) of the Act (criteria pollutants), or § 112(b)(1)(A) ("hazardous" pollutants), but for which standards of performance for new sources have been established under § 111(b). When EPA establishes a new source performance standard, states are required to develop standards for existing facilities based on EPA emission guidelines.

Section 129 of the Act requires that EPA establish standards of performance for both new and existing solid waste combustion sources, with new sources covered under § 129(a) and existing sources covered under § 129(b).

Section 129(a), new source performance standards, requires EPA to develop performance standards pursuant to § 111 for each category of solid waste incineration units. A schedule is given in §§ 129(a)(B) through (E) for promulgating the standards, depending on size and type of unit--large municipal waste combustors to be promulgated first, followed by small municipal waste combustors.

Section 129(a)(2), emissions standard, provides detail on what the standards are to contain the maximum degree of reduction in emissions of air pollutants, taking into consideration cost and any non-air quality health and environmental impacts and energy requirements. The degree of reduction must be no less stringent than the emissions control that is achieved in practice by the best controlled similar unit. Section 129(a)(3) states that the standards must be based on methods and technologies for removal or destruction of pollutants before, during, and after combustion, and must incorporate siting requirements that will minimize potential risks to public health or the environment.

The performance standards promulgated in §§ 111 and 129 must include numerical emissions limitations, as required under § 129(a)(4). The limitations must be determined for particulate matter, opacity, sulfur dioxide, hydrogen chloride, nitrogen oxides, carbon monoxide, lead, cadmium, mercury, and dioxins and furans. EPA is required to review and revise, as needed, the performance standards of §§ 111 and 129 periodically.

Section 129(b) addresses existing units. It directs EPA to develop guidelines that are to include emissions limitations and requirements on monitoring, operator training, permits, and residual risk. States are to then develop plans for implementing and enforcing these guidelines. Such plans must be no less stringent than the guidelines, and must be approved by EPA. As provided in § 129(a)(2), emission standards for existing units may be less stringent than standards for new units, but may not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in a particular category.

Monitoring requirements must be included in each performance standard, as are found in § 129(c), and must require sources to monitor emissions at various points, and to report monitoring results. Operator training and certification is also required, as put forth in § 129(d). Finally, according to § 129(e), sources must obtain Title V operating permits, whether from EPA or from an EPA-approved state operating permit program.

Section 129(f) contains a schedule of effective dates and enforcement for both new and existing units. Section 129(g) contains applicable definitions; § 129(h) discusses state and other authority under the Act.

Subpart B of 40 CFR Part 60 provides the criteria for adoption and submittal of state plans for designated facilities. The issues include: (i) publication of guideline documents, emissions guidelines, and final compliance times; (ii) adoption and submittal of state plans including public hearings; (iii) emission standards and compliance schedules; (iv) emission inventories and source surveillance, reports; (v) actions by the EPA Administrator; (vi) plan revisions by the state; and (vii) plan revisions by the Administrator. The emission guidelines established by EPA under the provisions of § 129(b) are also contained in 40 CFR Part 60.

Subpart Cc of 40 CFR Part 60 was promulgated on March 12, 1996 (60 FR 9918). It provides the emission guidelines for municipal solid waste landfills. Subpart BBBB of 40 CFR Part 60 was promulgated on December 6, 2000 (65 FR 76378). It provides the emission guidelines for small municipal waste combustors. Subpart Cb of 40 CFR Part 60 was promulgated on December 19, 1995 (60 FR 65382). It provides the emission guidelines for large municipal solid waste combustors.

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 40 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

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 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 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 its goals and already satisfy 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 Articles 2, 4 and 15 applicable to existing sources in operation prior to 1972. They provide a basis for meeting the minimum compliance requirements of the sources at the time the regulations were promulgated and should not be changed. 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. Therefore, 9VAC5-40 should not be amended for existing stationary sources.	We agree with the commenter that there is no need to revise those provisions of 9VAC5-40 at this time.

An informal advisory group was not formed to assist with 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 Articles 4, 8, 15, 43:

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 State Implementation Plan (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 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 consist 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 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 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 carpools, special bus lanes, and rapid transit systems.

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 this regulation, are necessary for the protection of public health and welfare.

In addition, for Articles 37, 43, 47, 48, 53:

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.

The federal Clean Air Act establishes 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 Act requires 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 disagree with EPA's proposals, they have the opportunity to propose different boundaries; however, EPA has the authority to make the final decision.

This process originally yielded three ozone 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 as an ozone nonattainment area, Richmond and Hampton Roads have achieved the 8-hour ozone standard and are now considered maintenance areas; that is, specific strategies that were implemented for the corresponding nonattainment areas 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 are defined, each state is obligated to submit a SIP demonstrating how it will attain the air quality standards in each nonattainment area. First, certain specific control measures and other requirements must 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 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 a EPA control technology guideline

Therefore, these specific SIP provisions, including implementation of these regulations, are necessary for the protection of public health and welfare.

For Article 52:

This regulation is necessary for the protection of public health and welfare, as it is needed to meet one of the goals of the federal Clean Air Act: the prevention and remedy of regional haze in mandatory Class I federal areas. BART is required for any BART-eligible source that emits any air pollutant that may reasonably be anticipated to cause or contribute to visibility impairment in any Class I area. Accordingly, for stationary sources meeting these criteria, states must address the BART requirement when developing regional haze SIPs. In addition to protecting public welfare by improving visibility in the national parks, control through BART of sulfur dioxide, nitrogen oxides, particulate matter, volatile organic compounds, and ammonia also protects public health from the negative health effects associated with emissions of those pollutants. Therefore implementation of this regulation is necessary for the protection of public health and welfare.

For Articles 43, 46, 54

Emissions from landfills and from small and large municipal waste combustors are considered to be "designated" pollutants under §§ 111(d) and 129 of the Act. Designated pollutant controls are critical for two reasons. First, only a limited number of air pollutants potentially harmful to human health are regulated at the federal level. Second, health risks from small exposures to designated air pollutants can be high, depending on the substances involved.

There are specific health and welfare-related benefits associated with the implementation of these regulations. Landfills emit nonmethane organic compounds (NMOC), which include hazardous air pollutants, VOCs, HAPs, and odorous compounds. Exposure to hazardous air pollutants (HAPs) can lead to cancer, respiratory irritation, and damage to the nervous system. VOC emissions contribute to ozone formation which can result in adverse affects on human health and vegetation; and control of odor is necessary to maintain public welfare. Small and large municipal waste combustor emissions consist of particulate matter, carbon monoxide, dioxin/furan, and other substances known or suspected of causing cancer, nervous system damage, developmental abnormalities, reproductive impairment, immune suppression, liver dysfunction, hormone imbalance, and other serious health effects.

Therefore, implementation of these regulations is 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 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 levels of a variety of pollutants. Depending on the underlying program for each article, Chapter 40 controls the following pollutants: particulate matter, VOCs, sulfur dioxide, hydrogen sulfide, nitrogen oxides, ammonia, nonmethane organic compounds, hazardous air pollutants, and odorous emissions. In addition to protecting public health, these regulations provide additional public welfare protections by controlling odor and visibility impairment.

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 the 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 15), 2002 (Article 8), 2003 (Article 54), 2004 (Articles 43 and 47), 2005 (Article 46), 2006 (Part I, Articles 4, 37, 48, and 53), and 2007 (Article 52). Since these prior reviews, it has generally become 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.

The 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.