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# Fast Track Proposed Regulation Agency Background Document

Agency name	State Air Pollution Control Board
	Primary Action: Article 8, 9VAC5-80 Secondary Actions: Article 9, 9VAC5-80; Part III of 9VAC5-85
Regulation title	Regulations for the Control and Abatement of Air Pollution
Action title	Major New Source Review (Revision D14)
Date this document prepared	June 16, 2014

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 14 (2010) and 58 (1999), and the Virginia Register *Form, Style, and Procedure Manual.* 

# **Brief summary**

Please provide a brief summary (no more than 2 short paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes.

Article 8 of 9VAC5-80 establishes a new source review (NSR) permit program whereby owners of sources locating in prevention of significant deterioration (PSD) areas are required to obtain a permit prior to construction of a new facility or modification of an existing one. Article 9 of 9VAC5-80 establishes an NSR permit program whereby owners of sources locating in nonattainment areas are required to obtain a permit prior to construction of a new facility or modification of an existing one. Part III of 9VAC5-85 establishes an NSR PSD permit program for sources of greenhouse gases (GHGs). EPA's major NSR reform rules incorporated several elements, including changes to the method for determining baseline actual emissions, and provisions to allow for compliance with plantwide applicability limits (PALs).

On April 4, 2014, the State Air Pollution Control Board approved a petition from the Virginia Manufacturers Association to make certain elements of the major NSR program consistent with the U.S. Environmental Protection Agency (EPA) regulations, and directed the Department of Environmental Quality to amend Articles 8 and 9 accordingly. The requested changes are: (1) amend the definition of "baseline actual emissions" to allow the use of a 10-year lookback period; (2) amend the definition of "baseline actual emissions" to allow the use of different lookback periods for different regulated NSR pollutants; (3) amend PAL requirements such that a PAL effective period is for 10 years; and (4) amend the definition of "emissions unit" and add a definition of "replacement unit" to enable the use of the baseline actual emissions of the unit being replaced and the projected actual emissions of the replacement unit.

## Statement of final agency action

Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.

On June 13, 2014, the State Air Pollution Control Board:

1. Authorized the department to promulgate the proposal for public comment using the fast-track process established in § 2.2-4012.1 of the Administrative Process Act for regulations expected to be non-controversial. The board's authorization constituted its adoption of the regulation amendments at the end of the public comment period provided that (1) no objection to use of the fast-track process is received from 10 or more persons, or any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, and (2) the department does not find it necessary, based on public comments or for any other reason, to make any changes to the proposal.

2. Authorized the department to set an effective date 15 days after close of the 30-day public comment period provided (1) the proposal completes the fast-track rulemaking process as provided in § 2.2-4012.1 of the Administrative Process Act and (2) the department does not find it necessary to make any changes to the proposal.

# Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant citations to the Code of Virginia or General Assembly chapter number(s), if applicable, and (2) promulgating entity, i.e., agency, board, or person. The identification should include a reference to the agency/board/person's overall regulatory authority, as well as a specific provision authorizing the promulgating entity to regulate this specific subject or program; and a description of the extent to which the authority is mandatory or discretionary.

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

#### Promulgating Entity

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

#### General

Sections 109(a) and (b) of the 1990 federal Clean Air Act require EPA to prescribe primary and secondary air quality standards to protect public health and welfare, respectively, for each air pollutant for which air quality criteria were issued before the enactment of the 1970 Clean Air Act. These standards are known as the National Ambient Air Quality Standards (NAAQS). Section 109(c) requires EPA to prescribe such standards simultaneously with the issuance of new air quality criteria for any additional air pollutant. The primary and secondary air quality criteria are authorized for promulgation under § 108.

Section 110(a) of the Act mandates that each state adopt and submit to EPA a state implementation plan (SIP) that provides for the implementation, maintenance, and enforcement of each NAAQS within each

air quality control region in the state. One of the programs that the SIP must include is a program for the regulation of the modification and construction of any stationary source within areas covered by the plan to assure the attainment of the NAAQS, including a permit program as required by Parts C and D of Title I of the Act.

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

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of SIPs. These requirements mandate that a SIP include certain provisions, as summarized below.

Subpart G (Control Strategy) specifies the description of emissions reductions estimates sufficient to attain and maintain the standards, the description of control measures and schedules for implementation, 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 I (Review of New Sources and Modifications) specifies legally enforceable procedures, public availability of information on sources, identification of responsible agency, and administrative procedures.

Section 51.160 of Subpart I specifies that the SIP must stipulate legally enforceable procedures that enable the permitting agency to determine whether the construction or modification of a facility will result in either a violation of any part of a control strategy or interference with attainment or maintenance of a national standard and, if such violation or interference would occur, the means by which the construction or modification can be prevented. The procedures must identify types of facilities which will be subject to review and discuss the basis for determining which facilities will be subject to review. The procedures must provide that facility owners must submit information on the nature and amounts of emissions and on the location, construction and operation of the facility. The procedures must ensure that owners comply with applicable control strategies after permit approval, and must discuss air quality data and modeling requirements on which applications must be based.

Section 51.161 of Subpart I specifies that the permitting agency must provide opportunity for public comment on information submitted by owners and on the agency's analysis of the effect of construction or modification on ambient air quality, including the agency's proposed approval or disapproval. Section 51.161 also specifies the minimum requirements for public notice and comment on this information.

Section 51.162 of Subpart I specifies that the responsible agency must be identified in the SIP. Section 51.163 of Subpart I specifies that the SIP must include administrative procedures to be followed in determining whether the construction or modification of a facility, building, structure or installation will violate applicable control strategies or interfere with the attainment or maintenance of a national standard. Section 51.164 of Subpart I governs stack height procedures, and Subpart L (Legal Authority) specifies identification of legal authority to implement plans and assignment of legal authority to local agencies.

Section 51.230 of Subpart L specifies that each SIP must show that the state has the legal authority to carry out the plan, including the authority to adopt measures necessary for the attainment and maintenance of the NAAQS; to enforce applicable laws, regulations, and standards, and seek injunctive relief; to 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; and to prevent construction, modification, or operation of a facility which directly or indirectly results in emissions of any air pollutant that will prevent the attainment or maintenance of a national standard.

#### Prevention of Significant Deterioration (PSD)

Part C of the Clean Air Act is entitled, "Prevention of Significant Deterioration of Air Quality." As described in § 160, the purpose of Part C is to protect existing clean air resources. Part C requires that the SIP include a PSD program. Section 161 of Part C says:

In accordance with the policy of § 101(b)(1), each applicable implementation plan shall contain emission limitations and such other measures as may be necessary, as determined under regulations promulgated under this part, to prevent significant deterioration of air quality in each region (or portion thereof) designated pursuant to § 107 as attainment or unclassifiable.

This means that the air in areas that meet national clean air standards is not allowed to become less clean, that is, to deteriorate.

Sections 162 through 169B go on to provide the details of how each state's PSD program is to be designed and operated. Section 165, "Preconstruction Requirements," is the section of the Act that deals with NSR permit programs. This section requires that sources obtain permits demonstrating that they will not contribute to air pollution in excess of that allowed by the Act. Section 165 also specifies what steps are needed to coordinate this permitting process with the federal land managers, who are responsible for maintaining air quality in the cleanest areas of the country: the national parks. Section 165 specifies that new sources locating in attainment areas must meet Best Available Control Technology (BACT), which is defined in § 169. Section 166 requires EPA to regulate certain types of pollutants in PSD areas.

40 CFR 51.166 provides details of what state PSD programs must include. These details include how to revise the program, how and when to assess the program, public participation requirements, and how to amend the program. 40 CFR 51.166(a)(1) states, "Each applicable State Implementation plan shall contain emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality." 40 CFR 51.166(a)(7) specifies the source applicability for the review of major sources and modifications and defines certain principles to be applied in the administration of the program. The remainder of 40 CFR 51.166 provides details on what the SIPs must contain.

Significant PSD concepts such as "baseline actual emissions," "major stationary source," "major modification," "net emissions increase," "potential to emit," "baseline concentration," and "significant" are defined in 40 CFR 51.166(b). In 40 CFR 51.166(c), ambient air increments are found, while ambient air ceilings are specified in 40 CFR 51.166(d). Area classifications are restricted in 40 CFR 51.166(e); exclusions from increment consumption are listed in 40 CFR 51.166(f). Redesignation of Class I, II, or III areas is discussed in § 51.166(g) and stack height requirements are given in 40 CFR 51.166(h). Exemptions are found in 40 CFR 51,166(i). 40 CFR 51,166(i) covers control technology review. specifically 40 CFR 51.166(j)(2) and (3) which require that new sources or major modifications must meet BACT as defined in 40 CFR 51.166(b)(12). Requirements for source impact analysis are given in 40 CFR 51,166(k). Air quality models are described in 40 CFR 51,166(l). Preapplication analysis, postconstruction monitoring, and operation of monitoring stations are found in 40 CFR 51.166(m), air quality analysis. Sources must provide information as described in 40 CFR 51.166(n), as well as additional impact analyses as described in 40 CFR 51.166(o). Sources that affect federal Class I areas must meet the requirements of 40 CFR 51.166(p), which also describes the responsibilities of the federal land manager. Public participation requirements are found in 40 CFR 51.166(q). 40 CFR 51.166(r) includes additional information on source obligation, and 40 CFR 51.166(s) allows for the use of innovative control technologies. Finally, provisions for plantwide applicability limits are found in 40 CFR 51.166(w) and 40 CFR 52.21(aa).

#### Nonattainment

Part D of the Clean Air Act, "Plan Requirements for Nonattainment Areas," describes how nonattainment areas are established, classified, and required to meet attainment. Subpart 1, Nonattainment Areas in General, consists of §§ 171 through 179, and provides the overall framework of what nonattainment plans are to contain, permit requirements, planning procedures, motor vehicle emission standards, and sanctions and consequences of failure to attain. Subpart 2, Additional Provisions for Ozone

Nonattainment Areas, consists of §§ 181 through 185, and provides more detail on what is required of areas designated as nonattainment for ozone.

Section 182 (a)(2)(C) sets out the general requirements for NSR programs in all nonattainment areas and mandates a new and modified major stationary source permit program that meets the requirements of §§ 172 and 173 of the Act. Section 172 contains the basic requirement for a permit program, while § 173 contains the specifics which are summarized below.

Section 173(a) provides that a permit may be issued if the following criteria are met:

1. Offsets have been obtained for the new or expanding sources from existing sources so that total allowable emissions (i) from existing sources in the region, (ii) from new or modified sources which are not major emitting facilities, and (iii) from the proposed new source will be sufficiently less than total emissions from existing sources prior to the application for the permit.

2. The proposed source complies with the lowest achievable emission rate (LAER).

3. The owner of the proposed source has demonstrated that all major stationary sources owned or operated by the owner in the state are subject to emission limitations and are in or on a schedule for compliance with all applicable emission limitations or standards.

4. The SIP is being adequately implemented for the nonattainment area in which the proposed source is to be located.

5. An analysis of alternative sites, sizes, production processes, and environmental control techniques for the proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

Section 173(c) provides that the owner of the proposed new or modified source may obtain offsets only from the nonattainment area in which the proposed source is to be located. Offsets may be obtained from other nonattainment areas whose emissions affect the area where the proposed source is to be located, provided the other nonattainment area has an equal or higher classification and the offsets are based on actual emissions.

A major stationary source is defined for general application in § 302 of the Act 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." For nonattainment areas defined as serious or worse, § 182(c) specifically defines a major stationary source as a facility emitting fifty tons per year or more; and for nonattainment areas defined as severe or worse, § 182(d) specifically defines a major stationary source as a facility emitting twenty-five tons per year or more. Section 182(f) provides that requirements which apply to major stationary sources of VOCs under the Act shall also apply to major stationary sources of NO<sub>x</sub>.

Section 182(a)(4) sets out the requirements for marginal areas with respect to offset ratios, providing for a minimum ratio of total emissions reduction of VOCs to total increased emissions of VOCs of 1.1 to 1. Likewise § 182(b)(5) sets out the offset requirements for moderate nonattainment areas, specifying the ratio to be at least 1.15 to 1. Accordingly, § 182(c)(10) sets out the offset requirements for serious nonattainment areas, specifying the ratio to be at least 1.2 to 1. Finally, § 182(d)(2) sets out the offset requirements for severe nonattainment areas, specifying the ratio to be at least 1.3 to 1.

Sections 182(c)(6) through (c)(8) contain some additional specifics for serious or worse nonattainment areas concerning the establishment of a de minimis level for expanding existing sources and the allowance of internal offsets as an alternative to the permit requirements. NSR programs must include provisions to require permits for modifications of all existing sources unless the increase in net emissions from the source does not exceed 25 tons when aggregated with all other net increases in emissions from the source over any period of five consecutive calendar years, including the calendar year in which the increase occurs. The program must also include provisions concerning internal offsets as alternatives to

the permit requirements. For sources emitting less than 100 tons per year and applying for a permit to expand, a permit will be required unless the owner elects to offset the increase by a greater reduction in emissions of the same pollutant from other operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1. If the owner does not choose the option of an internal offset, a permit will be required but the control technology level required will be best available control technology (BACT) instead of lowest achievable emission rate (LAER). For sources emitting 100 tons or more per year and applying for a permit to expand, control technology requirements which constitute LAER will be required unless the owner elects to offset the increase by a greater reduction in emissions of the same pollutant from other operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1.

40 CFR 51.165 enumerates permit requirements for nonattainment areas. This section describes what permitting requirements are to be contained in the SIP. Specific definitions of key terms such as "potential to emit," major stationary source," "major modification," "allowable emissions," and "lowest achievable emission rate," are found in 40 CFR 51.165(a)(1). In 40 CFR 51.166(a)(2), the SIP must include a preconstruction review program to satisfy the requirements of 40 CFR 172(b)(6) and 173 of the Act, and must apply to any new source or modification locating in a nonattainment area; 40 CFR 51.166(a)(2) also defines certain principles to be applied in the administration of the program. Section 51.165(a)(3) describes how emissions and emission reductions are to be measured and included in the SIP; 40 CFR 51.165(a)(4) lists a number of exemptions. 40 CFR 51.165(a)(5) stipulates that sources must meet the SIP as well as other state and federal requirements. In accordance with 40 CFR 51.165(a)(6), owners of projects at existing emissions units at a major stationary source in circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase must monitor emissions and record and report certain data; additionally, 40 CFR 51.165(a)(7) requires that such information be made available for review.

40 CFR 51.165(b) requires that sources meet the requirements of § 110(a)(2)(d)(i). This section also provides significance levels of pollutants which may not be exceeded by any source or modification. Finally, 40 CFR 51.165 (f) provides requirements for plantwide applicability limits (PALs). Provisions for PALs for greenhouse gases are found in 40 CFR 52.21(aa).

#### NSR Reform

On December 31, 2002 (67 FR 80185), EPA promulgated revisions, commonly known as "new source review reform," to the federal NSR permitting program for major stationary sources. Changes to the NSR program incorporated five main elements: changes to the method for determining baseline actual emissions, changes to the method for determining emissions increases due to an operational change, provisions to exclude pollution control projects from NSR; provisions for determining applicability of NSR requirements for units designated as clean units, and provisions to allow for compliance with plantwide applicability limits (PALs). (Note that on June 24, 2005, the D.C. Circuit Court of Appeals vacated the clean unit and pollution control project provisions, which were therefore never implemented.)

In areas where a state administers the NSR program under an approved state implementation plan (SIP), the state was required to adopt and submit revisions to the SIP to reflect the federal rule revisions no later than January 2, 2006. The EPA regulations on which the state regulations are based allow states some discretion in how the program is implemented. As long as the base elements of the program are included, states are allowed to tailor the federal regulations to meet state needs. EPA has stated that specific enforcement of the regulations is to be delineated by the states. Generally, as long as the state regulations do not impede a source's ability to use the basic elements of the NSR program, EPA considers the state regulations to be equally as protective as the federal regulations.

#### State Requirements

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. It further provides that the regulations shall not promote or encourage any substantial degradation of present air quality in any air basin or region which has an air quality superior to that stipulated in the regulations.

At the time the Virginia NSR reform regulation amendments were being developed (2004-2005), a number of issues were identified that necessitated some deviations from the federal program in order to meet certain Virginia-specific issues, including considerable uncertainty as to how the NSR reforms would be implemented as a practical matter, and the potential for increases in air pollution. The final regulation amendments were adopted by the board on June 21, 2006, submitted to EPA on October 10, 2006, and approved into the SIP on October 22, 2008 (73 FR 62897).

Additionally, a separate chapter (9VAC5-85, Permits for Stationary Sources of Pollutants Subject to Regulation) was established in order to regulate PSD NSR permits specifically for sources of greenhouse gases. This chapter contains PAL requirements that are based on the specific PAL requirements in 40 CFR 52.21(aa) and the general requirements in 9VAC5-80.

### Purpose

Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Detail the specific reasons the regulation is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.

#### General

Among the primary goals of the federal Clean Air Act are 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 Act gives EPA the authority to establish the NAAQS, which are designed to protect the health of the general public with an adequate margin of safety. The NAAQS establish the maximum limits of pollutants that are permitted in the outside ambient air. The Act requires that each state submit a state implementation plan (SIP), including any regulations necessary to enforce the plan, showing 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 plan must also demonstrate how the state will maintain the air pollution concentrations at reduced levels (maintenance).

The heart of the SIP is the control strategy. The control strategy describes the measures to be used by the state to attain and maintain the air quality standards. There are three basic types of control measures: stationary source control measures, mobile source control measures, and transportation source control measures. Stationary source control measures are directed at emissions primarily from commercial/industrial facilities and operations. Mobile source control measures are directed at tailpipe and other emissions from motor vehicles, and transportation source control measures affect motor vehicle location and use.

A key control measure for managing the growth of new emissions from stationary sources is to require preconstruction review of new major facilities or major modifications to existing ones. This review is accomplished through a permit program for new and modified stationary sources. The program requires that owners obtain a permit from the Department of Environmental Quality (DEQ) prior to the construction of a new industrial or commercial facility or the modification (physical change or change in the method of operation) of an existing one. Program requirements differ according to the facility's potential to emit a certain amount of a specific pollutant and the air quality status of the area where the facility is or will be

located. Requirements for facilities considered major due to their potential to emit a specified pollutant are more stringent than for less polluting facilities. Requirements for major facilities in nonattainment areas are considerably more stringent than for those in areas that meet the standard, i.e., PSD areas.

#### Prevention of Significant Deterioration (PSD)

The PSD program is designed to protect air quality in areas where the air is cleaner than required by the NAAQS. Areas that are thus designated as "attainment" are further classified to define the level of allowable degradation: Class I is the most stringent classification, allowing for little additional pollution, while Class III allows the most. All of Virginia is classified at the moderate level, Class II, with the exception of two Class I federal lands.

Prior to construction or expansion of an industrial facility, a permit must be issued that ensures that the facility will not emit pollutants in sufficient quantity to make a significant contribution to the deterioration of air quality or to violate the NAAQS. Additionally, the owner must provide an analysis of the impairment to air quality related values (including visibility) that would occur as a result of the source or modification. The permit application and DEQ review and analysis must be subject to a public hearing prior to issuing the permit. The facility must use the best available control technology to control emissions. If the facility is to be located near a Class I area, the federal land manager is involved in the review process, and additional data is required.

#### Nonattainment

When concentrations of ambient air pollution exceed the federal standard, the area is considered to be out of compliance and is designated "nonattainment." A number of counties and cities within the Commonwealth are designated nonattainment for the 8-hour ozone standard and the PM<sub>2.5</sub> standard.

The Act has a process for identifying and classifying each nonattainment area according to the severity of its air pollution problem for ozone. There are five nonattainment area classifications: marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification 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 its own class. 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.

Permits issued in nonattainment areas require the facility owner to apply control technology that meets the lowest achievable emission rate and to obtain emission reductions from existing sources. The emission reductions must offset the increases from the proposed facility by the ratio specified in the Act for that particular nonattainment classification.

#### Virginia-specific issues

In the regulation amendments adopted by the board on June 21, 2006, a number of changes were made to the baseline federal requirements in order to better suit the Virginia NSR program, and to alleviate concerns at the time about implementation and impacts. Since then, DEQ has gained experience in implementing the program, and has monitored how the program is being implemented in other states.

On October 22, 2013, the board received a petition from the Virginia Manufacturers Association (VMA) to initiate a rulemaking concerning major NSR. The petitioner requested that the board amend Article 8, Permits for Major Stationary Sources and Major Modifications Locating in Prevention of Significant Deterioration Areas (9VAC5-80-1605 et seq.) and Article 9, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas or the Ozone Transport Region (9VAC5-80-2000 et seq.) of Part II of 9VAC5-80 (Permits for Stationary Sources) as follows:

1. Amend the definition of "baseline actual emissions" in 9VAC5-80-1615 C and 9VAC5-80-2010 C and make any other regulatory changes necessary to make the Virginia regulation conform with the federal definition. This would allow VMA members and other facility owners in Virginia to use a 10-year lookback period, thus making the Virginia regulations no more stringent than federally required.

2. Amend subdivision b 4 of the definition of "baseline actual emissions" in 9VAC5-80-1615 C and 9VAC5-80-2010 C, amend 9VAC5-80-1865 E and 9VAC5-80-2144 E, and make any other regulatory changes necessary to make the Virginia regulation conform with the federal definition. This would allow VMA members and other facility owners in Virginia to use different lookback periods for different regulated NSR pollutants, thus making the Virginia regulations no more stringent than federally required.

3. Amend 9VAC5-80-1615 C, 9VAC5-80-1685 C 1 f, 9VAC5-80-2010 C and 9VAC5-80-2144 C 1 f, and make any other regulatory changes necessary to make the Virginia regulation conform with the federal definition. This would allow VMA members and other facility owners in Virginia to obtain PALs for 10 years, rather than only 5 years, thus making the Virginia regulations no more stringent than federally required.

4. Amend the definition of "emissions unit" and add a definition of "replacement unit" in 9VAC5-80-1615 C and 9VAC5-80-2010 C, and make any other regulatory changes necessary to make the Virginia regulation conform with the federal definition. This would allow VMA members and other facility owners in Virginia to use the baseline actual emissions of the unit being replaced and the projected actual emissions of the replacement unit, thus making the Virginia regulations no more stringent than federally required.

As required by the Administrative Process Act, notice of the opportunity to submit written comments on the petition was given to the public on December 30, 2013 in the Virginia Register and the public comment period closed on January 30, 2014. Eight comments were received, all in favor of the petition. After being presented with the results of the comment period, the board elected to grant the petition on April 4, 2014, and directed the department to amend the regulations accordingly.

Because the PAL requirements for PSD sources of greenhouse gases are based on those in Article 8 with additional requirements derived from 40 CFR 52.21, these provisions must also be modified.

Finally, a number of administrative amendments intended to provide clarity were identified.

### Rationale for using fast track process

*Please explain the rationale for using the fast track process in promulgating this regulation. Why do you expect this rulemaking to be noncontroversial?* 

Please note: If either an objection to the use of the fast-track process is received within the 30-day public comment period from 10 or more persons, or any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules; or the Department finds it necessary, based on public comments or for any other reason, to make any changes to the proposal, the Department shall (i) file notice of the objection/reason with the Registrar of Regulations for publication in the Virginia Register, and (ii) proceed with the normal promulgation process with the initial publication of the fast-track regulation serving as the Notice of Intended Regulatory Action.

The petition underwent a public comment period in accordance with the Administrative Process Act; 8 comments were received, all positive. In addition, the department determined that aligning the Virginia regulations with the EPA regulations would not have an adverse impact on the permitting program and would likely be generally beneficial. EPA was also consulted, and did not express any negative reaction. Given the lack of negative public comment, and the positive result of the department's analysis, it is not anticipated that the proposal will be controversial.

### Substance

Please briefly identify and explain new substantive provisions (for new regulations), substantive changes to existing sections or both where appropriate. Note, more detail about all provisions or changes is provided in the "Detail of changes" section.

1. The definition of "baseline actual emissions" in 9VAC5-80-1615 C and 9VAC5-80-2010 C will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 51.166(b)(47) and 40 CFR 51.165(a)(1)(xxxv). This will extend the lookback period from 5 to 10 years.

2. The definition of "baseline actual emissions" in 9VAC5-80-1615 C and 9VAC5-80-2010 C, and 9VAC5-80-1865 E and 9VAC5-80-2144 E, will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 51.166(b)(47) and 40 CFR 51.166(w), and 40 CFR 51.165(a)(1)(xxxv) and 40 CFR 51.165(f)(6). This will enable different lookback periods for different regulated NSR pollutants.

3. 9VAC5-80-1615 C, 9VAC5-80-1685 C 1 f, 9VAC5-80-2010 C and 9VAC5-80-2144 C 1 will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 51.166(w) and 40 CFR 51.165(f). This will increase the PAL effective period from 5 years to 10.

4. The definitions of "emissions unit" will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 51.166(b)(7) and 40 CFR 51.165(a)(1)(vii), and a definition of "replacement unit" will be added in 9VAC5-80-1615 C and 9VAC5-80-2010 C in accordance with 40 CFR 51.166(b)(32) and 40 CFR 51.165(a)(1)(xxi). This will enable use of the baseline actual emissions of the unit being replaced and the projected actual emissions of the replacement unit.

5. The definitions of "baseline actual emissions for a GHG PAL" and "PAL effective period" in 9VAC5-85-50 will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 52.21(aa)(2)(xiii) and 40 CFR 52.21(aa)(2)(vii). This will extend the lookback period from 5 to 10 years, and remove a requirement that prohibits different lookback periods for different regulated NSR pollutants.

6. 9VAC5-85-55 will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 52.21(aa). This will increase the PAL effective period from 5 years to 10.

7. The definition of "emissions unit" will be amended to conform the Virginia regulation to the federal requirements of 40 CFR 51.166(b)(7) and 40 CFR 51.165(a)(1)(vii), and a definition of "replacement unit" will be added in 9VAC5-85-50 C in accordance with 40 CFR 51.166(b)(32) and 40 CFR 51.165(a)(1)(xxi). This will enable use of the baseline actual emissions of the unit being replaced and the projected actual emissions of the replacement unit. Although there are no specific replacement unit provisions in the federal GHG PAL rule, the definitions are baseline PSD concepts, and it is appropriate to include them in the state GHG PAL rule.

#### Issues

Please identify the issues associated with the proposed regulatory action, including: (1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; (2) the primary advantages and disadvantages to the agency or the Commonwealth; and (3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please indicate.

1. Public: The public will likely benefit from the amendments, as they will help the major NSR permitting program to operate more effectively, and encourage the implementation of projects that are more protective of air quality. There are no disadvantages to the public.

2. Department: The department will likely benefit from the amendments, as they will help the major NSR permitting program to operate more effectively, and encourage the implementation of projects that are more protective of air quality. There are no disadvantages to the department.

# Requirements more restrictive than federal

Please identify and describe any requirement of the proposal which is more restrictive than applicable federal requirements. Include a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements or no requirements that exceed applicable federal requirements, include a statement to that effect.

The proposed regulation amendments are not more restrictive than the applicable legal requirements. The purpose of the regulatory amendments is to make the Virginia regulations consistent with the federal.

# Localities particularly affected

Please identify any locality particularly affected by the proposed regulation. Locality particularly affected means any locality which bears any identified disproportionate material impact which would not be experienced by other localities.

The PSD NSR regulations (Article 8 of 9VAC5-80 and Part III of 9VAC5-85) apply to localities that attain federal air quality standards; the entire Commonwealth is considered to be attainment for the all NAAQS with the exception of the northern Virginia ozone and very fine particulate matter ( $PM_{2.5}$ ) nonattainment areas. These nonattainment areas, which are subject to the nonattainment NSR regulation (Article 9), consist of the counties of Stafford, Arlington, Fairfax, Loudoun, and Prince William, and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. By amending both the PSD and nonattainment regulations, the proposed regulation amendments therefore apply to all localities in the Commonwealth.

## Public participation

Please include a statement that in addition to any other comments on the regulation, the agency is seeking comments on the costs and benefits of the proposal, the potential impacts on the regulated community, and the impacts of the regulation on farm or forest land preservation.

In addition to any other comments, the board is seeking comments on the costs and benefits of the proposal, the impacts on the regulated community, and impacts of the regulations on farm or forest land preservation. Also, the board is seeking information on impacts to small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include (1) projected reporting, recordkeeping and other administrative costs, (2) probable effect of the proposal on affected small businesses, and (3) description of less intrusive or costly alternative methods of achieving the purpose of the proposal.

Anyone wishing to submit written comments may do so by mail, email, or fax to the staff contact listed below. Comments may also be submitted through the Public Forum feature of the Virginia Regulatory Town Hall web site at www.townhall.virginia.gov. Written comments must include the name and address of the commenter. In order to be considered, comments must be received by the last day of the public

comment period. Commenters submitting faxes are encouraged to provide the signed original by postal mail within one week.

All comments requested by this document must be submitted to the agency contact: Karen G. Sabasteanski, Policy Analyst, Office of Regulatory Affairs, Department of Environmental Quality, P.O. Box 1105, Richmond, Virginia, 23218 (email <u>karen.sabasteanski@deq.virginia.gov</u>, fax 804-698-4510).

# **Economic impact**

Please identify the anticipated economic impact of the proposed regulation.

Projected cost to the state to implement and enforce the proposed regulation, including (a) fund source / fund detail, and (b) a delineation of one-time versus on-going expenditures.	It is not expected that the regulation amendments will result in any cost to the department beyond that currently in the budget. The sources of department funds to carry out this regulation are the general fund and the federal trust (grant money provided by EPA under § 105 of the federal Clean Air Act or permit fees charged to affected entities under the permit program). The activities are budgeted under the following program (code)/subprogram (code): (i) Environmental and Resource Management (51300)/Air Protection Permitting (51325) and Air Protection Compliance and Enforcement (51326) and Air Protection Planning and Policy (51328). The costs are expected to be ongoing.
Projected cost of the new regulations or changes to existing regulations on localities.	The projected cost of the regulation amendments on localities is not expected to be beyond that of other affected entities and are addressed below.
Description of the individuals, businesses or other entities likely to be affected by the new regulations or changes to existing regulations.	Any owner who constructs a new major stationary source or makes a major modification to any major stationary source. The number, type, and size of sources to be affected by the revised regulations are impossible to predict, as such a prediction must approximate the need and ability of sources to make specific plant-by-plant modifications, which depend on local, national, and global economies as well as by a source's individual plant-specific needs. These modifications may take place on a scale ranging from monthly to over a period of many years, and on a size ranging from a relatively small piece of equipment to a large and complex facility. PALs are entirely voluntary, and will vary greatly from source to source, from year to year. Very few major source NSR permits are issued. From 2011 to 2013, one was issued in a nonattainment area, and 12 in PSD areas. It is anticipated that a number of such sources, if they met the specific qualifications for participation, would have chosen to utilize the EPA version of the reform provisions had these options been available, or would perhaps not have been required to obtain a permit at all based on the new applicability requirements. Some existing major sources may

	weigh the costs and benefits of PALs, particularly in view of an increased PAL effective period, and may now opt to participate.
	The vast majority of permits issued are minor NSR permits: over 1000 from 2011 to 2013. A number of these permits were sought by sources wishing to avoid major source NSRan estimated 50-75% of permit actions would be major modifications if sources were not able to limit their emissions. Note, however, that although a project may avoid permitting under major NSR, it may still remain subject to other permitting rules, including minor NSR. It is therefore anticipated that the number of minor source permit actions will vary little as a result of implementation of the EPA version of NSR.
	It is anticipated that approximately 350 sources may be eligible to utilize the EPA version of NSR. Of these sources, some or all of them may avail themselves of some or all of the elements of the regulations. Because the PAL program elements are optional, it is unlikely that a source would participate if it would not be cost effective to do so. The ability to utilize certain elements of the regulations also depend on a source's ability to calculate and provide certain types of data over particular periods of time, to be capable of performing certain types of testing and monitoring, and many other requirements that a source may or may not be able to undertake.
Agency's best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.	It is anticipated that approximately 350 sources may be eligible to utilize the EPA version of NSR; however, the specific number, type, and size of sources to be affected by the regulations is impossible to predict, as such a prediction must approximate the need and ability of sources to make specific plant-by-plant modifications, which depend on local, national, and global economies as well as by a source's individual, plant-specific needs.
	Because PALs are optional, it is unlikely that a source would participate if it would not be cost effective to do so. The ability to utilize certain elements of the regulations also depend on a source's ability to calculate and provide certain types of data over particular periods of time, to be capable of performing certain types of testing and monitoring, and many other requirements that a source may or may not be able to undertake. To date no facility of any type has expressed interest in or need for an NSR "reform" PAL; however, given the wide range of potentially affected sources, it is possible that a number of different

	types of facilitiesincluding small businessesmay
All projected costs of the new regulations or changes to existing regulations for affected individuals, businesses, or other entities. Please be specific and include all costs. Be sure to include the projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses. Specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the proposed regulatory changes or new regulations.	now request a PAL permit. Because it is not possible to determine the specific number of affected sources, it is also not possible to quantify projected costs. New source review is inherently case-by-case and source-by-source. Cost effectiveness, therefore, depends on the type of source, the type of control equipment required, and so forth. Sources locating in nonattainment areas must meet LAER, which is the lowest possible emission rate currently in use by a source anywhere in the country, regardless of cost. Sources locating in a PSD area must meet BACT, which takes into account variables such as cost effectiveness.
	The costs of the regulations for affected entities depend entirely on the specific situation for each source. Costs vary from source to source due to the size and complexity of each source. As mentioned elsewhere, participation in major NSR reforms will not necessarily exempt a source from minor NSR applicability; therefore, it is anticipated that very few current costs will change due to implementation of the amendments.
	Bearing in mind the variability among the entities affected by the proposed regulation, an estimation of ongoing general costs is as follows:
	FOR MAJOR SOURCES IN GENERAL:
	(1) <u>Costs of preparing a permit application and providing data to the agency so that the application can be evaluated</u> - The department's permit application parallels the federal requirements, which look at the changes from a source-wide perspective to determine applicability. The determination of applicability must look back at historical emissions changes in addition to the emissions changes directly resulting from the physical or operational change. Filling out a completely new permit application is considerably time-intensive for proposed new sources. However, each existing source now reports certain emissions and operational data to the department at specific intervals depending on the size of the source. This data is required to maintain the state's emissions inventory and to verify compliance with the regulations. For sources with fully permitted facilities, applying for a modification will mean organizing and verifying information already set out in the permits in effect for the source. While this effort may be time-consuming, it probably will not take as much effort as initially developing the data. The cost to prepare the permit application is approximately \$80,000, while the cost for an

amendment is approximately \$4,200.
(2) <u>Costs of LAER</u> - Costs associated with LAER controls are developed on a case-by-case basis; no additional costs will be incurred as a result of the proposed regulatory amendments.
(3) <u>Costs of obtaining offsets</u> – The cost of obtaining an offset depends on the size, emissions, market, and the availability of emissions reductions, which are in turn dependent on the various strategies that would be used to control existing sources; no additional costs will be incurred as a result of the proposed regulatory amendments.
(4) <u>Costs of BACT</u> – Currently, a BACT evaluation must be conducted for an application for a PSD permit. The cost of negotiating and implementing BACT varies, and is determined by the circumstances of the individual source ; no additional costs will be incurred as a result of the proposed regulatory amendments.
(5) <u>Costs of fulfilling additional requirements such as</u> <u>testing, monitoring, and reporting</u> - The regulations provides that the department may require as part of a source's permit conditions that testing, monitoring or reporting be required. The costs for testing, monitoring, and reporting vary considerably from one source to another and from one pollutant to another. No additional costs will be incurred as a result of the proposed regulatory amendments
FOR PALS IN PARTICULAR:
PALs are voluntary and will forestall the need for continual permit revisions over a certain period of time. Sources seeking to obtain a PAL permit would generally do so to avoid being subject to PSD permitting, which can be very complex, costly, and time consuming. Therefore, it is anticipated that the benefits of a PAL would likely outweigh the up-front costs of obtaining one.
Because it is not possible to determine the number of affected sources, it is also not possible to quantify projected costs. PALs are inherently case- by-case and source-by-source. The costs of this regulation for affected entities will depend entirely on the specific situation for each source. Costs will vary from source to source due to the size and complexity of each source. However, the cost savings achieved from avoiding any potential PSD permitting and any other permit amendments is expected to result in the overall cost savings, otherwise the affected sources would not undertake

	this optional PAL alternative.
	Bearing in mind the variability among the entities affected by the proposal, an estimation of ongoing general costs is as follows:
	1) <u>Costs of preparing a permit application and</u> <u>providing data to the agency so that the application</u> <u>can be evaluated</u> - The preparation of PAL permit application requires sources to have a thorough handle on the emissions from every emissions unit. Existing sources must report certain emissions and operational data to the department at specific intervals depending on the size of the source. This data is required to maintain the state's emissions inventory and to verify compliance with the regulations. For currently permitted major facilities, preparing for a PAL permit will generally require better organizing and verifying its emissions information. Sources voluntarily choosing to obtain a PAL permit would generally do so to avoid being subject to PSD permitting. It is expected that the upfront cost of preparing a PAL permit application in most cases would be lower than the cost savings later realized by avoiding the preparation of a PSD permit application.
	(2) <u>Costs of fulfilling additional requirements such as</u> <u>testing, monitoring, and reporting</u> - The regulations provides that the department may require as part of a source's permit conditions that testing, monitoring or reporting be required. The costs for testing, monitoring, and reporting vary considerably from one source to another depending on number of emission units and type of emission units. Sources subject to either a conventional PSD or a PAL permit are generally required to undertake extensive testing, monitoring, and reporting. Therefore, no significant increase in these costs for complying with PAL are expected as compared to the costs of complying with possible alternative PSD permitting.
	(3) <u>Cost savings from avoided permit revisions</u> - Any savings realized through the PAL, other than improved plant operations realized through implementing PAL efficiencies, will depend on how frequently a facility would have otherwise had to amend its permit. Such revisions would depend on the facility type as well as a variety of business decisions. Facilities could save approximately \$7,000 for each permit amendment that is avoided due to the operational flexibility provided by the PAL.
Beneficial impact the regulation is designed to produce.	Benefits to the regulated community include more certainty of requirements and added flexibility in business planning. While the case-by-case nature of the regulations makes it impossible to quantify

any specific numbers, the regulated community anticipates the realization of a generally beneficial fiscal impact.
Because a PAL provides extensive operational flexibility, sources will not have to spend money on obtaining permit modifications for the PAL duration. Such cost savings will depend on how frequently the source modifies its processes. In turn, the department will not have to process many permit modifications, and may focus its efforts on other facilities with a greater impact on the environment.
Avoiding PSD review also allows sources to make the changes necessary to respond rapidly to market conditions, while generally assuring the environment is protected from adverse impacts from the change.
A PAL also results in significant environmental benefit by providing the community with an understanding of the long-term emissions impact from a facility, by preventing "emissions creep"a series of unrelated individual emissions increases that are below major NSR applicability thresholds and by requiring enhanced monitoring, recordkeeping and reporting provisions to demonstrate compliance with the PAL. In order to operate within the PAL emissions limit and maintain its PAL status, a facility is likely to look for ways to improve its operations, thus likely resulting in reduction of NSR pollutants.
The general public will benefit from a reduction in the health and welfare effects of air pollution, as the rules encourage the application of air pollution control equipment and work practices.
The department will benefit by diverting its limited resources to projects with a potentially significant impact to the environment rather than on projects with positive or neutral effects to the environment. Permitting resources will be diverted to projects with more of an impact on the environment.

# Alternatives

Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in *§*2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulation.

Alternatives to the proposed regulation amendments were considered by the board. The board determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulations. The alternatives considered by the board, along with the reasoning by which the board has rejected any of the alternatives being considered, are discussed below.

1. Amend the regulations to satisfy the provisions of the law and associated regulations and policies. This option was chosen because it meets the stated purpose of the regulations: to enable the major NSR permitting program to operate more effectively, and encourage the implementation of projects that are more protective of air quality.

2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option was not chosen because it would not meet the stated purpose of the regulations: to enable the major NSR permitting program to operate more effectively, and encourage the implementation of projects that are more protective of air quality.

3. Take no action to amend the regulations and continue to implement NSR requirements that are more restrictive than the federal. This option was not chosen because it would not meet the board's directive to the department to amend the regulations in accordance with the petition; nor would it enable the major NSR permitting program to operate more effectively, and encourage the implementation of projects that are more protective of air quality.

# **Regulatory flexibility analysis**

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

The regulations apply to all facilities, including small businesses. Any (1) establishment of less stringent compliance or reporting standards; (2) establishment of less stringent schedules or deadlines for compliance or reporting requirements; (3) consolidation or simplification of compliance or reporting requirements; (4) establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; or (5) exemption of small businesses from all or any part of the requirements contained in the proposed regulation for all small businesses would adversely affect the benefits that would be achieved through the implementation of the regulations. The proposed regulatory amendments are intended to provide businesses, including small businesses, with greater flexibility.

# **Family impact**

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

It is not anticipated that these regulation amendments will have a direct impact on families.

# Detail of changes

Please list all changes that are being proposed and the consequences of the proposed changes. If the proposed regulation is a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory action.

If the proposed regulation is intended to replace an emergency regulation, please list separately (1) all differences between the pre-emergency regulation and this proposed regulation, and (2) only changes made since the publication of the emergency regulation.

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change, intent, rationale, and likely impact of proposed requirements
9VAC5-80, Pe	rmits for Statior	nary Sources	
9VAC5-80- 1615 C, subdivision a (3), definition of "baseline actual emissions"		For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period may be used to determine baseline actual emissions. The same period must be used for each different pollutant unless the owner can demonstrate that a different period for a different pollutant is more appropriate.	Amend so that a different consecutive 24-month period may be used for each regulated NSR pollutant. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 1615 C, subdivision b, definition of "baseline actual emissions"		For an existing emissions unit other than an electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner within the 5-year period immediately preceding either the date the owner begins actual construction of the project, or the date a complete permit application is received by the board, except that the 5-year period may not include any period earlier than November 15, 1990. The board may allow	Extend the lookback period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.

		use of a different time period	
		upon a determination that it is more representative of	
		normal source operation.	
9VAC5-80- 1615 C, subdivision b (4), definition of "baseline actual emissions"		For a regulated NSR pollutant, when a project involves multiple emissions units, only 1 consecutive 24- month period may be used to determine the baseline actual emissions for all the emissions units being changed. The same period must be used for each different pollutant unless the owner can demonstrate that a different period for a different pollutant is more appropriate.	Amend to allow the use of a different consecutive 24-month period for each regulated NSR pollutant. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80-		Term defined.	Acronym added. Needed for clarity as
1615 C, definition of "best available			the acronym is used elsewhere in the regulation without being associated with the full term.
control			
technology" 9VAC5-80-		Term defined.	Specify that a rankagement unit is an
1615 C, definition of "emissions unit"			Specify that a replacement unit is an existing emissions unit. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80-	Definition		Needed for clarity as the term is used
1615 C, definition of "new source performance standard"	added.		throughout the regulation but is not defined.
9VAC5-80- 1615 C, definition of "PAL effective period		Defined as the period beginning with the PAL effective date and ending 5 years later.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80-	Definition		Specifies what constitutes a replacement
1615 C, definition of "replacement unit"	added.		unit. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 1865 C 1 e		A PAL effective period is 5 years.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 1865 E		When establishing the actuals PAL level, for a PAL pollutant, only 1 consecutive	Amend to enable a different 24-month period to be used for each different PAL pollutant. Needed to align the VA

	24-month period may be used to determine the baseline actual emissions for all existing emissions units. The same period must be used for each different pollutant unless the owner can demonstrate that a different period for a different pollutant is more appropriate.	
9VAC5-80- 1865 G	A PAL effective period is 5 years.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 1865 L 1 b	The level of control that would result from BACT equivalent controls on each significant or major emissions unit will be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 5 years.	Amend to indicate that the BACT or LAER requirement to have been established within the preceding 10 years. Makes this provision consistent with the amendments extending the PAL effective period to 10 years. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 2010 C, subdivision a (3), definition of "baseline actual emissions"	For a regulated NSR pollutant, when a project involves multiple emissions units, only 1 consecutive 24- month period may be used to determine the baseline actual emissions for all the emissions units being changed. The same period must be used for each different pollutant unless the owner can demonstrate that a different period for a different pollutant is more appropriate.	Amend to allow the use of a different consecutive 24-month period for each regulated NSR pollutant. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 2010 C, subdivision b, definition of "baseline actual emissions"	For an existing emissions unit other than an electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner within the 5-year period immediately preceding either	

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9VAC5-80- 2010 C, subdivision b 4, definition of "baseline actual emissions"		the date the owner begins actual construction of the project, or the date a complete permit application is received by the board, except that the 5-year period may not include any period earlier than November 15, 1990. The board may allow use of a different time period upon a determination that it is more representative of normal source operation. For a regulated NSR pollutant, when a project involves multiple emissions units, only 1 consecutive 24- month period may be used to determine the baseline actual emissions for all the emissions units being changed. The same period must be used for each different pollutant unless the owner can demonstrate that a different period for a different pollutant is more appropriate.	Amend to allow the use of a different consecutive 24-month period for each regulated NSR pollutant. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 2010 C, definition of "best available control technology"		Term defined.	Acronym added. Needed for clarity as the acronym is used elsewhere in the regulation without being associated with the full term.
9VAC5-80- 2010 C, definition of "emissions unit"		Term defined.	Specify that a replacement unit is an existing emissions unit. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 2010 C, definition of "new source performance standard"	Definition added.		Needed for clarity as the term is used throughout the regulation but is not defined.
9VAC5-80- 2010 C, definition of "PAL effective period"		Defined as the period beginning with the PAL effective date and ending 5 years later.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-80- 2010 C, definition of "reasonably	Definition added.		Needed for clarity as the term is used throughout the regulation but is not defined.

available			
control			
technology"			
9VAC5-80-	Definition		Specifies what constitutes a replacement
2010 C,	added.		unit. Needed to align the VA program
definition of			with the federal, in the interest of making
"replacement			the program operate more effectively.
unit"			
9VAC5-80-		A PAL effective period is 5	Extend effective period from 5 years to
2144 C 1 f		years.	10. Needed to align the VA program with
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	the federal, in the interest of making the
			program operate more effectively.
9VAC5-80-		When establishing the	Amend to enable a different 24-month
2144 E		actuals PAL level, for a PAL	period to be used for each different PAL
		pollutant, only 1 consecutive	pollutant. Needed to align the VA
		24-month period may be	program with the federal, in the interest
		used to determine the	of making the program operate more
		baseline actual emissions for	effectively.
		all existing emissions units.	
		The same period must be	
		used for each different	
		pollutant unless the owner	
		can demonstrate that a	
		different period for a different	
		pollutant is more	
01/4.0.5.00		appropriate.	
9VAC5-80-		A PAL effective period is 5	Extend effective period from 5 years to
2144 G		years.	10. Needed to align the VA program with
			the federal, in the interest of making the
9VAC5-80-		The level of control that	program operate more effectively. Amend to indicate that the BACT or
2144 L 1 b		would result from BACT	LAER requirement to have been
		equivalent controls on each	established within the preceding 10
		significant or major	years. Makes this provision consistent
		emissions unit will be	with the amendments extending the PAL
		determined by conducting a	effective period to 10 years. Needed to
		new BACT analysis at the	align the VA program with the federal, in
		time the application is	the interest of making the program
		submitted, unless the	operate more effectively.
		emissions unit is currently	
		required to comply with a	
		BACT or LAER requirement	
		that was established within	
		the preceding 5 years.	
9VAC5-85, Permits for Stationary Sources of Pollutants Subject to Regulation			
9VAC5-85-		The average rate, in tons per	Extend the lookback period from 5 years
50 C,		year CO <sub>2</sub> e or tons per year	to 10. Needed to align the VA program
definition of		GHG, at which the	with the federal, in the interest of making
"Baseline		emissions unit actually	the program operate more effectively.
actual		emitted GHGs during any	
emissions		consecutive 24-month period	
for a GHG		selected by the owner within	
PAL"		the 5-year period	
		immediately preceding either	
		the date the owner begins	

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		actual construction of the project, or the date a complete permit application is received by the board.	
9VAC5-85- 50 C, subdivision 5, definition of "Baseline actual emissions for a GHG PAL"		When a project involves multiple emissions units, only one consecutive 24- month period shall be used to determine the baseline actual emissions.	Deleted to allow the use of a different consecutive 24-month period. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 50 C, definition of "emissions unit"		Term defined.	Specify that a replacement unit is an existing emissions unit. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 50 C, subdivision 5, definition of "PAL effective period."		Defined as the period beginning with the PAL effective date and ending 5 years later.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 50 C, definition of "replacement unit"	Definition added.		Specifies what constitutes a replacement unit. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 55 C 6		A PAL effective period is 5 years.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 55 E		A PAL effective period is 5 years.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 55 G		A PAL effective period is 5 years.	Extend effective period from 5 years to 10. Needed to align the VA program with the federal, in the interest of making the program operate more effectively.
9VAC5-85- 55 J 4 c		Description of PAL renewal process.	A typographical error is corrected.

# Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the "Definition" section of the regulations.

BACT - best available control technology

 $CO_2e$  - carbon dioxide equivalent

DEQ - Department of Environmental Quality

EPA - U.S. Environmental Protection Agency GHG - greenhouse gas LAER - lowest achievable emission rate NAAQS - National Ambient Air Quality Standard NSR - new source review PAL - plantwide applicability limit  $PM_{2.5}$  - very fine particulate matter PSD - prevention of significant deterioration SIP - state implementation plan

VMA - Virginia Manufacturers Association

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