

Virginia Regulatory Town Hall

Notice of Intended Regulatory Action Agency Background Document

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| Agency Name: | State Air Pollution Control Board |
| Regulation Title: | Regulation for Emissions Trading |
| Primary Action: | 9 VAC 5 Chapter 140 (9 VAC 5-140-10 et seq.) |
| Secondary Action(s): | None |
| Action Title: | NO _x Budget Trading Program - Flow Control (Rev. H02) |
| Date: | |

This information is required prior to the submission to the Registrar of Regulations of a Notice of Intended Regulatory Action (NOIRA) pursuant to the Administrative Process Act § 9-6.14:7.1 (B). Please refer to Executive Order Twenty-Five (98) for more information.

Purpose *

Please describe the subject matter and intent of the planned regulation.

The purpose of the proposed action is to correct an EPA identified deficiency in the banking provisions of the NO_x Budget Trading Program regulation with regard to the start date for flow control. The regulation creates an enforceable mechanism to assure that collectively all affected sources will not exceed the total NO_x emissions budget established by EPA for the Commonwealth for the year 2007 ozone season and to provide the regulatory basis for a program under which the creation, trading (buying and selling) and registering of emission credits can occur.

Statutory Authority

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation contemplated.

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. Section 10.1-1322.3 indicates that the Board may promulgate regulations to provide an emissions trading and banking program that results in net air emission reductions, creates an economic incentive for reducing air emissions, and allows for economic growth. However, no regulation shall prohibit the direct trading of credits or

allowances between private industries provided such trades do not adversely impact air quality in Virginia.

Need *

Please provide an explanation of the need for the contemplated regulation and potential consequences that may result in the absence of the regulation. Also set forth the specific reasons the agency has determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens or would be essential for the efficient and economical performance of an important governmental function. Include a discussion of the problems the regulation's provisions are intended to solve.

One of the primary goals of the federal Clean Air Act (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 Act gives the U.S. Environmental Protection Agency (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 ambient air. The Act requires that each state submit a plan (called a State Implementation Plan or SIP), including any laws and regulations necessary to enforce the plan, showing how the air pollution concentrations will be reduced to levels at or below these standards (i.e., 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 (i.e., maintenance).

In 1979, EPA established a NAAQS for ozone of 0.12 parts per million (ppm). This standard was based on a 1-hour averaging period and is commonly called the 1-hour standard. When concentrations of ozone in the ambient air exceed the federal standard the area is considered to be out of compliance and is designated as "nonattainment." Numerous counties and cities within the Commonwealth have at one time been identified as ozone nonattainment areas according to the Act. Currently, only the Northern Virginia area is a nonattainment area for the 1-hour standard.

The Act has 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. There are five nonattainment area classifications called 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 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.

The Act contains comprehensive air quality planning requirements for areas that do not attain the federal air quality standard for ozone (that is, nonattainment areas). Once the nonattainment areas were defined, each state was then obligated to submit a SIP revision or plan demonstrating how it will attain the air quality standard in each nonattainment area. Failure to develop adequate plans to meet the ozone air quality standard: (i) will result in the continued violations of the standard, (ii) may result in assumption of air quality programs by EPA at which time the Commonwealth would lose authority over matters affecting its citizens, and (iii) may result in the implementation of sanctions by EPA, such as more restrictive requirements on new major industrial facilities and loss of federal funds for highway construction.

The heart of the plan 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 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. The Act encourages the use of market-based programs to facilitate the attainment of the milestones and goals in the SIP. One market-based program to assist in meeting these goals is emissions trading.

Emissions trading consists of bubbles, netting, offsetting and emissions reduction credit banking. These steps involve the creation of surplus emissions reduction credits at sources of air pollution for use to meet SIP air pollution control requirements by the same or other sources. The source creating the emission reduction credit could either sell (trade) the credit to another source or store (bank) the credit for later use or sale. Such a program can provide more flexibility to meet environmental requirements, thus reducing costs and encouraging faster compliance. Moreover, the development of generic trading rules enables states to expedite the attainment of SIP goals and eliminates the need for case-by-case review of emission trading projects. New and existing sources can take advantage of emissions trading. In order to obtain an air quality permit in some air quality areas, new industry and existing industry that is significantly expanding or modifying its operations must find credits to offset the amount of new pollution released so there is no net increase in pollution levels in the area.

Properly utilized emissions trading can provide more flexibility for both new and existing industry to meet environmental requirements, while reducing pollution control costs and encouraging faster compliance with regulatory requirements. Emissions trading can also provide an incentive for industry to install innovative pollution control equipment and increase pollution prevention efforts.

Many areas within the eastern half of the United States petitioned EPA regarding their inability to achieve the ozone standard due to significant amounts of ozone and oxides of nitrogen (NO_x), a precursor to ozone, being transported across state boundaries. EPA made a determination (Finding of Significant Contribution and Rulemaking for Certain

States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone; 63 FR 57356, October 27, 1998) that sources in 22 states and the District of Columbia emitted NO_x in amounts that significantly contribute to nonattainment of the ozone NAAQS in one or more downwind states. EPA also required that each of the affected upwind jurisdictions (sometimes referred to as upwind states) submit SIP revisions prohibiting those amounts of NO_x emissions which significantly contribute to downwind air quality problems. Virginia was included as one of the upwind states.

The rulemaking, known as the NO_x SIP call rule (40 CFR 51.121), also includes statewide NO_x emissions budget levels that each state must achieve by the year 2007. Furthermore, the NO_x SIP call rule identifies specific source categories that are covered by the budget. Failure to achieve the budget will result in a Federal Implementation Plan (FIP) for which EPA has also published a Notice of Proposed Rulemaking (63 FR 56394, October 21, 1998).

The NO_x SIP Call final rule identifies 22 jurisdictions as having substantially inadequate SIPs to comply with requirements of the Clean Air Act that address interstate transport of nitrogen oxides in amounts that will contribute significantly to nonattainment in one or more other States with respect to the 1-hour ozone national ambient air quality standards. It mandates that, for each jurisdiction identified, a SIP revision must be submitted to EPA that imposes enforceable mechanisms to assure that, collectively, all sources identified in the budget, will not exceed the NO_x emissions projected for the year 2007 ozone season. The SIP revisions must include control measures to limit the amount of NO_x so that the jurisdiction's budget is not exceeded. The control measures must be implemented no later than May 1, 2003 (later adjusted by the United States Court of Appeals for the District of Columbia Circuit to May 31, 2004). Emission reductions used to demonstrate compliance with the revision must occur during the ozone season. The revision must include a description of enforcement methods including monitoring compliance with each selected control measure and procedures for handling violations. For large electric generators and industrial boilers, the control measures must include a NO_x mass emissions cap on each source, and impose a NO_x emission rate so that the State can comply with the 2007 ozone NO_x budget.

The NO_x SIP call rule permits the states to include an allowance trading program as an option in their SIP revisions. This element is allowed under 40 CFR 51.121(p) and is contained in 40 CFR Part 96 of the NO_x SIP Call rule. The allowance trading system is very similar to the emissions trading system described above in this notice except the geographic area is different and the pollutant and sources covered are limited as described in the preceding paragraph. For this reason the allowance trading system is classified as a closed market trading system.

On May 21, 2002, the Board adopted the final regulation concerning Emissions Trading, Virginia NO_x Budget Trading Program (9 VAC 5 Chapter 140). The final regulation was published in the Virginia Register on June 17, 2002 and became effective on July 17,

2002. The regulation was submitted to EPA as a revision to the Virginia State Implementation Plan on June 25, 2002.

On November 12, 2002 (67 FR 68542), EPA issued notice that it intends to approve the NOx Budget Trading Program as submitted on June 25, 2002, with the exception of the NOx Allowances Banking provisions located in 9 VAC 5-140-550, which require that flow control begin in 2006. According to the notice:

The 2006 date is inconsistent with the model rule in Part 96 (which required flow control in the NOx SIP Call to start in 2004) and the subsequent timing change effected by the ruling of the U.S. Court of Appeals for the D.C. related to its decision in Michigan v. EPA, 213 F.3d 663 (D.C. Cir.2000). Although the court's action affected only the compliance deadline, other dates in the rule for related requirements (such as flow control) were also extended because they were established relative to the original compliance deadline. The compliance deadline was extended by 1 year (from 2004 to 2005), thereby necessitating an extension of the date for flow control to begin by 1 year (from 2004 to 2005). Virginia must revise its regulation at 9 VAC 5-140-550 to establish the start of flow control to be 2005.

The notice continues:

For Virginia's NOx banking requirements to become fully approvable, Virginia must correct the deficiency identified in this action and submit the change as a SIP revision, by a date within one year from the final conditional approval...If the condition is not met within the specified timeframe, EPA is proposing that the rulemaking will convert to a final disapproval.

It is anticipated that the final conditional approval will be promulgated in early January 2003.

Potential Issues *

Please supply a statement delineating any potential issues that may need to be addressed as the regulation is developed.

To amend 9 VAC 5-140-550 by changing the flow control date from 2006 to 2005.

Sources have flexibility to save unused allowances (carry over for use in future) via the banking portion of the emissions trading program. "Flow control" is used to minimize emissions variability with the use of banked allowances. Flow control provides an "insurance policy" that is triggered only when saved allowances equal more than 10% of trading budget; and if triggered, sets a 2-for-1 rate for saved allowances used above a specified level. EPA maintains that some form of management is necessary to discourage the use of a large number of banked allowances in a given control period and to limit the negative impact of excessive use of banked allowances on the trading program budget

and therefore, the environment. Flow control is a restriction on use of emissions allowances at certain times, or within certain areas. One use of flow control management is to discourage the excessive use of banked allowances during periods when the potential of increased emissions to adversely affect air quality is likely. There is concern that during a really hot summer sources would deplete their banks of excessive allowances while operating at full electrical generating capacity and essentially providing very little reductions in emissions for that particular control period, leading, it was speculated, to adverse impacts on air quality.

Alternatives *

Please describe the process by which the agency has considered, or will consider, less burdensome and less intrusive alternatives for achieving the need. Also describe, to the extent known, the specific alternatives to the proposal that have been considered and will be considered to meet the need, and the reasoning by which the agency has rejected any of the alternatives considered.

Alternatives to the proposed regulation amendments are being considered by the Department. The Department has tentatively determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulatory action. The alternatives being considered by the Department, along with the reasoning by which the Department 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 is being selected because it meets the stated purpose of the regulatory action and provides a means to avoid SIP disapproval by EPA which would result in a mandatory Federal Implementation Plan (FIP).

2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option is not being selected because it would not necessarily meet the federal requirements for SIP approval and could result in federal sanctions.

3. Take no action to amend the regulations and allow the conditional approval by EPA to become a disapproval. This option is not being selected because it clearly would result in a mandatory FIP and sanctions.

As provided in the public participation procedures of the State Air Pollution Control Board, the Department will include, in the subsequent Notice of Intended Regulatory Action, a description of the above alternatives and a request for comments on other alternatives and the costs and benefits of the above alternatives or the other alternatives that the commenters may provide.

Public Participation *

Please indicate the nature of the comments the Department is soliciting pursuant to this notice and whether a public meeting is to be held to receive comments on this notice. If a public meeting is to be held, indicate where information on the public meeting (i.e. date, time, and place) may be found. Indicate whether it is the Department's intent to hold at least one public hearing on the proposed regulation after it is published in the Virginia Register.

The Department is soliciting comments on (i) the intended regulatory action, to include ideas to assist the Department in the development of the proposal, (ii) the impacts of the proposed regulation on farm and forest lands, (iii) the costs and benefits of the alternatives stated in this notice or other alternatives, and (iv) potential pollution prevention benefits that could be realized. All comments must be received by the Department by 4:30 p.m. on the day specified in the Virginia Register in order to be considered. All comments must be provided in writing to the Department, along with any supporting documents or exhibits. Comments may be submitted by mail, facsimile transmission, e-mail, but must be submitted to Beth Major, Environmental Program Manager, Office of Air Regulatory Development, Department of Environmental Quality, P.O. Box 10009, Richmond, Virginia, 23240 (e-mail: mlmajor@deq.state.va.us) (fax number: 804-698-4510). Comments by facsimile transmission will be accepted only if followed by receipt of the signed original within one week. Comments by e-mail will be accepted only if the name, address and phone number of the commenter are included. All testimony, exhibits and documents received are a matter of public record. Only comments (i) related to the potential issues, alternatives, and other issues specified at the beginning of this paragraph and (ii) provided in accordance with the procedures specified in this notice will be given consideration in the development of the proposed regulation amendments.

A public meeting will not be held by the Department because the Board has authorized the Department to proceed without holding a meeting.

Ad Hoc Advisory Group *

Please indicate the extent to which the participatory approach will be used in the development of the proposed regulation. Indicate whether the Department is will be using an ad hoc advisory group in the development of the proposal.

The Department will not form an ad hoc advisory group to assist in the development of the regulation because the Board has authorized the Department to proceed without the use of the participatory approach.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the contemplated regulation. The discussion of these requirements should include a description of their scope and the extent to which the requirements are mandatory or discretionary. Full citations for the legal requirements and, if available, web site addresses for locating the text of the cited legal provisions should be provided.

Federal Requirements

Federal Clean Air Act (CAA):

<http://www.epa.gov/ttn/oarpg/gener.html>

Code of Federal Regulations (CFR):

<http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html>

Federal Register (FR):

http://www.gpo.gov/su_docs/aces/aces140.html

Sections 109 (a) and (b) of the Clean Air Act require EPA to prescribe national air quality standards (NAAQS) for each air pollutant for which air quality criteria were issued before the enactment of the 1970 Clean Air Act. The standards fall into two categories, primary standards to protect public health and secondary standards to protect public welfare. 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 Section 108. The criteria for each pollutant shall include, to the extent practicable, information on the following:

- (1) variables which may adversely affect the impact of an air pollutant on public health or welfare;
- (2) pollutants which may interact with other pollutants to produce an adverse effect on public health or welfare; and
- (3) any known or anticipated adverse effects on public health or welfare.

Section 302 (h) defines effects on public welfare as including, but not limited to, effects on soils, water, vegetation, man-made materials, animals, weather, visibility. Also included are damage to and deterioration of property, hazards to transportation, and adverse effects on economic values, personal comfort, and well-being.

Section 110(a) of the Clean Air Act mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the state. The state implementation plan shall be adopted only after reasonable public notice is given and public hearings are held. 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 a program for the enforcement of the emission limitations and schedules for compliance;

(3) prohibit emissions which would contribute to nonattainment of the standards or interference with maintenance of the standards by any state;

(4) insure compliance with the requirements of §§ 126 and 115 of the Act, which relate to interstate and international pollution abatement;

(5) provide for the revision of the plan as necessary to incorporate a revision to federal law or regulation; and

(6) provide for the revision of the plan as necessary to remedy any findings of inadequacy by EPA.

Section 110(k)(5) provides the EPA administrator with the authority to issue "SIP calls". If the administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard, the administrator shall require the state to revise the plan as necessary to correct such inadequacies. The administrator shall notify the state of the inadequacies and may establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions. Any such finding shall subject the state to the requirements of the Act to which the state was subject when it developed and submitted the plan for which the finding was made, except that the administrator may adjust any applicable dates as appropriate (except for attainment dates, unless these have elapsed).

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, as 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 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.

Section 51.121 requires specific jurisdictions to revise their State Implementation Plans to prohibit sources and other activities from emitting nitrogen oxides (NO_x) in amounts that will contribute significantly to nonattainment in one or more other states with respect to the 1-hour ozone national ambient air quality standard (NAAQS). Paragraph (a)(1) stipulates that the EPA Administrator has made a finding that 22 jurisdictions have substantially inadequate State Implementation Plans (SIPs) to comply with requirements of the Clean Air Act that address interstate transport of nitrogen oxides in amounts that will contribute significantly to nonattainment in one or more other States with respect to the 1-hour ozone national ambient air quality standards.

Paragraph (b) requires that the SIP revisions include control measures to limit the amount of NO_x so that the jurisdiction's budget is not exceeded. The control measures must be implemented no later than May 1, 2003, paragraph (b)(1)(ii). An interstate trading program may be included in the SIP according to paragraph (b)(2), provided the revision contains: (i) a prohibition of NO_x emissions in excess of the jurisdiction's budget, (ii) emissions reductions used to demonstrate compliance occur during the ozone season, and (iii) reductions occurring prior to the year 2003 may be used by a source to demonstrate compliance with the SIP for the 2003-2004 ozone season provided specific criteria are met or if not needed to demonstrate compliance, may be banked and used to demonstrate compliance with the SIP in a subsequent ozone season, paragraph (b)(2)(i) and (ii)(A) -(E). All implementation dates referenced above were delayed by one year by the United States Court of Appeals for the District of Columbia Circuit.

The states subject to §51.121 are specifically identified, paragraph (c). The states must submit a SIP revision to impose enforceable mechanisms to assure that, collectively, all sources identified in the state's budget will not exceed the NO_x emissions projected for the year 2007 ozone season, paragraph (e). The section also identifies each state's NO_x budget, expressed in tons, paragraph (e)(2).

Each SIP revision must identify control measures for sources subject to the state budget, paragraph (f), and must identify procedures for monitoring compliance with the control measures, procedures for handling violations and a designation of the agency responsible for implementation and enforcement of the SIP revision, paragraph (f) (1) (i)-(iii). The SIP revision must also address the following: demonstrate that the control measures contained in the SIP are adequate to provide for compliance with the 2007 NO_x budget, paragraph (g); meet requirements for data availability, paragraph (h); provide for monitoring the status of compliance, paragraph (i); show that the State has legal authority to carry out all provisions of the SIP and provide copies of such documents with the submittal to EPA, paragraphs (j) and (k); demonstrate the authority to assign legal authority to local agencies according to specific criteria, paragraph (l); and demonstrate adequate resources are available to implement the SIP, paragraph (m).

The section also provides EPA authority to implement sanctions according to section 179(a)(1)-(4) of the Clean Air Act for failure to submit a required SIP revision, paragraph (n). If the state chooses, it may adopt 40 CFR Part 96 (the model NO_x budget trading program for SIPs). The State's SIP revision will be automatically approved if this option is chosen, paragraph (p).

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.

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 state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to perform the following actions:

- (1) adopt emission standards and limitations and any other measures necessary for the attainment and maintenance of the national ambient air quality standards; and
- (2) enforce applicable laws, regulations, and standards, and seek injunctive relief.

Section 51.231 of Subpart L requires the identification of legal authority as follows:

- (1) the provisions of law or regulation which the state determines provide the authorities required under § 51.231 must be specifically identified, and copies of such laws or regulations must be submitted with the plan; and
- (2) the plan must show that the legal authorities specified in Subpart L are available to the state at the time of submission of the plan.

The model rule in 40 Part 96 requires flow control in the NOx SIP Call to start in 2005 based on the subsequent timing change effected by the ruling of the U.S. Court of Appeals for the D.C. related to its decision in Michigan v. EPA, 213 F.3d 663 (D.C. Cir.2000). Although the court's action affected only the compliance deadline, other dates in the rule for related requirements (such as flow control) were also extended because they were established relative to the original compliance deadline. The compliance deadline was extended by 1 year (from 2004 to 2005), thereby necessitating an extension of the date for flow control to begin by 1 year (from 2004 to 2005).

State Requirements

Code of Virginia:

<http://leg1.state.va.us/000/cod/codec.htm>

Virginia Administrative Code (VAC):

<http://leg1.state.va.us/000/reg/toc.htm>

Section 10.1-1322.3 of the Code of Virginia indicates that the Board may promulgate regulations to provide for an emissions trading program to achieve and maintain the NAAQS. The banking and trading program shall result in net air emission reductions, create economic incentive for reducing air emissions and allow for economic growth. In developing the regulations, the Board shall consider (i) the definition and use of emissions reduction credits from mobile and stationary sources, (ii) offsets, (iii) interstate or regional trading, (iv) mechanisms needed to facilitate trading and banking, and (v) emissions allocations. However, no regulation shall prohibit the direct trading of credits or allowances between private industries provided such trades do not adversely impact air quality in Virginia.

Please provide a preliminary analysis of the potential 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; 4) increase or decrease disposable family income.

It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health problems.

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