

Virginia Regulatory Town Hall

Periodic Review of Existing Regulations Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulations for the Control and Abatement of Air Pollution
Subtitle:	Permits for Stationary Sources
VAC Number:	9 VAC 5 Chapter 80
Date:	July 13, 2001

This information is required pursuant to the Administrative Process Act § 9-6.14:25 and Executive Order Twenty-Five (98) which outline procedures for periodic review of regulations of agencies within the executive branch. Each existing regulation is to be reviewed at least once every three years and measured against the specific public health, safety, and welfare goals assigned by agencies during the promulgation process.

Summary

Please provide a brief summary of the regulation and its purpose. There is no need to state each provision, instead give a general description of the regulation.

The regulation establishes new source review permit programs (prevention of significant deterioration areas, nonattainment areas, minor sources, and hazardous air pollutants) whereby owners are required to obtain a permit prior to beginning construction of a new facility or the expansion to an existing one. It establishes a federal operating permit program (Title V) whereby owners of regulated major facilities are required to obtain a renewable permit to operate the facility. Also, it establishes a state operating permit program used to establish source-specific regulatory requirements.

Scope of Review

Please identify the parts and/or articles of the chapter included in this review and provide a brief reason for excluding the remaining parts and/or articles.

The specific parts and/or articles of 9 VAC 5 Chapter 80 subject to this review are listed below. An agency background document providing an individual review for each of the parts and/or articles listed below is available upon request.

PART II, Permit Procedures

Article 8, Permits for Major Stationary Sources and Major Modifications Locating in Prevention of Significant Deterioration Areas

The remaining parts and/or articles of this chapter are not included in this review because they (i) are subject to an ongoing regulatory action or (ii) were subject to a recently completed regulatory action making them ineligible for review at this time.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the 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

Part C of Title I of the Clean Air Act Amendments of 1990 (42 USC 7471) is entitled, "Prevention of Significant Deterioration of Air Quality." As described in section 160, the purpose of Part C is to protect existing clean air resources. Part C requires that the state implementation plan include a prevention of significant deterioration (PSD) program. Section 161 of Part C says:

In accordance with the policy of section 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 section 107 as attainment or unclassifiable.

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

Section 165, "Preconstruction Requirements," is the section of the Act that deals with new source review 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 166 of the Act requires EPA to regulate certain types of pollutants in PSD areas. Subsection f of Section 166 authorizes EPA to specify maximum allowable increases in particulate matter in terms of very small particulate, that is, PM₁₀.

EPA's regulation promulgated in response to Part C of the Act is found in the Code of Federal Regulations, 40 CFR Part 51, Section 51.166. This section requires that ". . . each applicable state implementation plan shall contain emission limitations and such other measures as may be necessary to prevent significant deterioration of air quality," and includes specific detail on how relevant new source review permit programs are to be developed and implemented.

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>

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.

Comparison with Statutory Requirements

Except as noted below, no provision of the regulation exceeds the minimum requirements of any state or federal mandate. An explanation as to how this conclusion was reached is set forth below.

The agency performed an analysis to determine if statutory mandates, in general, justify continuation of the regulation. The analysis revealed that statutory justification does exist for the regulation. The regulation was adopted in order to implement the policy set forth in the Virginia Air Pollution Control Law and to fulfill the Commonwealth's responsibilities under the Clean Air Act to provide a legally enforceable State Implementation Plan for the control of criteria pollutants. These statutes still remain in force with the provisions that initiated adoption of the regulation still intact.

Analysis reveals that the regulation is generally consistent with applicable state and federal regulations, statutory provisions, and judicial decisions. Factors and circumstances (federal statutes, original intent, state air quality program and air pollution

control methodology and technology) which justified the initial issuance of the regulation have not changed to a degree that would justify a change to the basic requirements of the regulation.

9 VAC 5-80-1870 A through E requires that applicants notify the public about the proposed source and provide an informational briefing. The briefing is to provide the public with information and answer questions about the operation and potential air quality impacts. As explained below under "Need", this provision is essential to the efficient operation of the permit issuing process.

Public Comment

Please summarize all public comment received as the result of the Notice of Periodic Review published in the Virginia Register and provide the agency response. If no public comment was received, please include a statement indicating that fact

SUBJECT: Aggregation of emissions

COMMENTER: Virginia Manufacturers Association

TEXT: 9 VAC 5-80-1700 C states:

Where a source is constructed or modified in contemporaneous increments which individually are not subject to approval under this article and which are not part of a program of construction or modification in planned incremental phases approved by the board, all such increments shall be added together for determining the applicability of this article. An incremental change is contemporaneous with the particular change only if it occurs between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs.

This provision is an "accumulation rule" in that it aggregates the emissions increases from individual, separate construction or modification projects for comparison against the "significance levels" above which the collection of the projects would trigger the PSD requirements in Article 8. This accumulation rule is unnecessary, unwarranted, unduly burdensome, and more stringent than federally required. Accordingly, under the criteria set forth in the Governor's Executive Order 25(98), this rule should be eliminated from the Air Board's regulations.

From the earliest days of the federal PSD program, the U.S. Environmental Protection Agency has taken the approach that de minimis emission impacts, e.g., emission increases below the PSD significance levels, from distinct and separate changes to a source are **not** added together to determine PSD applicability unless "the particular change" provoking PSD review itself would result in an emissions increase above the PSD significance level. No netting, i.e., accumulation, of contemporaneous emissions

increases (and decreases) takes place unless "the particular change" itself would result in a significant emissions increase. This principle is clearly articulated in the EPA's New Source Review Workshop Manual (Draft 1990):

If the proposed emissions increase at a major source is by itself (without considering any decreases) less than "significant," EPA policy does not require consideration of previous contemporaneous small (i.e., less than significant) emissions increases at the source. In other words, the netting equation (the summation of contemporaneous emissions increases and decreases) is not triggered unless there will be a significant emissions increase from the proposed modification.

In a memorandum from Sheldon Meyers, EPA OAQPS, to David Howerkamp, EPA Region IX, "Net Emission Increase under PSD" (undated) ("Meyers memo"), EPA says:

The issue . . . is whether sources and control agencies need to aggregate small changes (i.e., those below de minimis levels) which occur over time so that once the cumulative effect of the changes exceeds de minimis levels, PSD is triggered. . . . [T]he Agency has maintained since 1981 that no such aggregation is required.

Thus, there is no doubt that EPA does not mandate accumulation (aggregation) of de minimis (i.e., less than significant) emission increases from individual projects occurring over time as apparently required by 9 VAC 5-80-1700.C in the Air Board's rules.¹ Thus, Virginia's emissions accumulation rule is apparently more stringent than federally required.

In the Meyers memo, EPA itself articulated some of the reasons against an emissions accumulation (aggregation) rule. EPA says the policy considerations leading it to reject such a rule include:

- (a) aggregation could impose a significant resource burden on sources which might never become subject to PSD.

¹ It is possible that 9 VAC 5-80-1700 C serves a very different purpose than accumulation of separate de minimis emissions increases. EPA notes that "a deliberate decision to split an otherwise 'significant' project into two or more smaller projects to avoid PSD review would be viewed as circumvention and would subject the entire project to enforcement action if construction on any of the small projects commences without a valid PSD permit." NSR Workshop Manual at p. A.36. Everyone recognizes that artificial segmentation of one integrated project for the purpose of circumventing PSD applicability is against the federal and Virginia PSD rules. Thus, 9 VAC 5-80-1700 C could be interpreted not as an emissions accumulation (aggregation) rule, but as an anti-circumvention rule. This interpretation is supported by the references in 9 VAC 5-80-1700 C to adding together "increments" rather than "projects" or "particular changes." The reference to "increments" connotes inseparable parts of the same project. However, if 9 VAC 5-80-1700 C is intended to be an anti-circumvention rule rather than an emissions aggregation rule, that intent is not clear. In any event, VMA believes this provision must be changed so it clearly does not operate as an emissions aggregation rule.

- (b) aggregation would only require installation of BACT level controls on the last piece of equipment which triggered the review, with a minimum air quality benefit, and
- (c) air quality would be protected since these changes would consume increment in any event.

These very same reasons make Virginia's emissions accumulation rule unnecessary, unwarranted, and excessively burdensome. Accordingly, under the criteria of the Governor's Executive Order 25(98) governing the review of this rule, 9 VAC 5-80-1700 C should be eliminated.

RESPONSE: The citation described here, 9 VAC 5-80-1700 C, is consistent with other requirements of Article 8. The addition of contemporaneous increases is described in the definition of a net emissions increase so this language is not unique within the article. The applicability of PSD is based upon the increases from the particular change but this is not inconsistent with the wording of 9 VAC 5-80-1700 C. The applicability of PSD is evaluated first based upon the increases from the particular change and then, if this increase is above significance, from an accumulation of increases and decreases within the contemporaneous period. The reference to "applicability of this article" in 9 VAC 5-80-1700 C means applicability of PSD which is determined by the process described in the definition of net emissions increase; a process wholly consistent with a literal reading of 9 VAC 5-80-1700 C.

The consistency between the "accumulation" of emissions as described in 9 VAC 5-80-1700 C and the definition of net emissions increase is further supported by paragraph c. in the definition of "net emissions increase" where it states: "An increase or decrease in actual emissions is creditable only if the board has not relied on it in issuing a permit for the source under this article". A PSD permit incorporates all the net increases such that a netting exercise necessitated by a future PSD action for a specific affected facility will only include increases (and decreases) since the last PSD action regardless of whether they occur within the contemporaneous window. To permit a source to do other than this would allow circumvention of Article 8. The wording of 9 VAC 5-80-1700 C is consistent with the intended application of the PSD regulations and is required to properly apply a net emissions methodology that is consistent with the regulations.

Currently, EPA is engaged in a major regulatory reform of the PSD program. Should EPA revise its regulations to agree with its guidance, Virginia will then change its regulations in order to maintain consistency, and to continue federal approval of the state program.

No change will be made to the regulation as a result of this comment.

Effectiveness

Please provide a description of the specific and measurable regulatory goals of the regulation. Detail the effectiveness of the regulation in achieving such goals.

The regulation has been effective in achieving its specific and measurable goals, which are as follows:

1. To protect public health and welfare with the least possible cost and intrusiveness to the citizens and businesses of the Commonwealth.
2. To enhance the Department's ability to ensure compliance with all applicable federal requirements under the Clean Air Act and specific requirements under the state code through the issuance and enforcement of federal (Title V) operating permits.
3. To identify and clarify for the Department and source owner exactly which air quality program requirements are applicable to the permitted source through the issuance and enforcement of federal (Title V) operating permits.
4. To provide an administrative mechanism to impose source-specific regulatory requirements with the flexibility to address the individual needs of sources through the issuance and enforcement of state operating permits.
5. To provide a mechanism to administer certain air quality control program requirements without the need for federal oversight through the issuance and enforcement of state operating permits.
6. To prevent the construction, modification, or operation of facilities that will prevent or interfere with the attainment or maintenance of any ambient air quality standard through the issuance and enforcement of new source review permits.
7. To ensure that new facilities or expansions to existing facilities will be designed, built, and equipped to operate without causing or exacerbating a violation of any ambient air quality standard through the issuance and enforcement of new source review permits.
8. To ensure that new facilities or expansions to existing facilities will be designed, built, and equipped to comply with case-by-case control technology determinations and other requirements through the issuance and enforcement of new source review permits.
9. To prevent the construction, modification, or operation of major facilities that will not use maximum achievable control technology to limit emissions of hazardous air pollutants through the issuance and enforcement of new source review permits.
10. To ensure that there is no significant deterioration of air quality throughout the Commonwealth through the issuance and enforcement of new source review permits for new major facilities or major expansions locating in prevention of significant deterioration areas.

11. To ensure that emission increases from new major facilities or major expansions to existing facilities are offset by emission reductions from existing facilities by an equal or greater amount through the issuance and enforcement of new source review permits for new major facilities or major expansions locating in nonattainment areas.

Need

Please provide the specific reasons the agency has determined that the regulation is essential to protect the health, safety or welfare of citizens or is 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.

Among the primary goals of the 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 NAAQS, developed and promulgated by the U.S. Environmental Protection Agency (EPA), establish the maximum limits of pollutants that are permitted in the outside ambient air. EPA requires that each state submit a plan (the 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 (attainment). Once the pollution levels are within the standards, the plan must also demonstrate how the state will maintain the air pollution concentrations at the reduced levels (maintenance). The Virginia SIP was submitted to EPA in early 1972. Many revisions to the SIP have been made since the original submittal in 1972. The Clean Air Act is specific concerning the elements required for an acceptable SIP. If a state does not prepare a SIP, or EPA does not approve a submitted SIP, then EPA itself is empowered to take the necessary actions to attain and maintain the air quality standards. Generally, the SIP is revised, as needed, based upon changes in the federal Clean Air Act and its requirements.

The PSD program is designed to protect air quality in areas where the air is cleaner than required by the NAAQS. The program has three classifications for defining 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.

PSD's primary control strategy is new source review. 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. The permit application and the Department 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 (FLM) is involved in the review process. Also in such cases, additional data with respect to impact on the Class I area is required. Any disagreements with the FLM must be addressed prior to releasing the application and analysis to public comment.

Some provisions of this regulation were developed to improve the efficiency of issuing permits; thus, making these provisions essential to the efficient operation of government. These provisions require that applicants notify the public about the proposed source and provide an informational briefing. The briefing is to provide the public with information and answer questions about the operation and potential air quality impacts.

The board has experienced considerable public objection with regard to the permitting of some industries, primarily due to a lack of understanding of the process and technology associated with the issuance of permits. To foster better understanding by the public of such processes and technologies, the regulation requires that owners of proposed major source conduct briefings shortly after submitting a permit application. These briefings are to be conducted as the application is being reviewed by the agency and thus do not delay issuance of the permit. The regulation also requires the department to conduct briefings at least one day prior to the beginning of the public comment period to aid in this effort.

At the time the regulation was being developed, the board, the department, the regulated community, and the general public had experienced a number of controversial permit applications that lengthened the permitting process. The regulation therefore was required to include briefings by sources in order to reduce public concern generated by misinformation and to foster prompt resolution of all public concerns. This new requirement was developed with the assistance of an ad hoc advisory group that had considerable industry representation. Every care was taken to ensure that the briefing process would not be unduly burdensome. By addressing and resolving public concerns early in the process, the briefings:

1. reduce the time necessary to process an application,
2. minimize or eliminate the possibility of expensive and time-consuming controversy,
3. provide useful input to the source as well as the department and the board, and
4. enable a positive relationship between a source and the community, thereby creating an environment in which industrial development is encouraged, and thereby improving the local and state economy.

Thus far, the cost of the briefings has been far outweighed by the savings they realize as discussed above. The additional requirement is therefore an improvement over the original federal requirement.

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 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 have been considered by the Department to meet the need. The Department has determined that retention of the regulation (the first alternative) is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the statutory requirements and need for the regulation. The alternatives considered by the Department, along with the reasoning by which the Department has rejected any of the alternatives considered, are discussed below.

1. Retain the regulation without amendment. This option was chosen because the current regulation provides the least onerous method for complying with the minimum requirements of the legal mandates.
2. Make alternative regulatory changes to those required by the provisions of the legally binding state or federal mandates. This option was not chosen because it could result in the imposition of requirements that place unreasonable hardships on the regulated community without justifiable benefits.
3. Repeal the regulation or amend it to satisfy the provisions of the legally binding state or federal mandates. This option was not chosen because the regulation is effective in meeting its goals and already satisfies those mandates.

Clarity of the Regulation

Please provide a statement indicating that the agency, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

The Department, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

Family Impact Statement

Please provide a preliminary analysis of the potential impact of the regulation on the institution of the family and family stability including to what extent the regulation 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 the regulation will have a direct impact on families. However, there will be positive indirect impacts in that the regulation will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

Recommendation

Please state whether the agency is recommending the regulation be retained and the reasons such a recommendation is being made.

The regulation satisfies the provisions of the legally binding state or federal requirements and is effective in meeting its goals; therefore, it is recommended that the regulation be retained without amendment.

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