COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION
(9 VAC 5 CHAPTER 80)

REGULATORY ANALYSIS DOCUMENT FOR PROPOSED REGULATION REVISION J97 CONCERNING

NEW SOURCE REVIEW FOR SOURCES OF HAZARDOUS AIR POLLUTANTS

SECTIONS AFFECTED

New source review for sources of hazardous air pollutants, Article 7 (9 VAC 5-80-1400 et seq.) of 9 VAC 5 Chapter 80.

STATEMENT OF PURPOSE

The purpose of the regulation is to control emissions of hazardous air pollutants (HAPs) from major sources and to protect public health and welfare by establishing the procedural and legal basis for the issuance of a new source permit for proposed new or reconstructed facilities that will (i) enable the agency to conduct a preconstruction review in order to determine compliance with applicable control technology and other standards and (ii) provide a state and federally enforceable mechanism to implement permit program requirements. The regulation also provides the basis for the agency's final action (approval or disapproval) on the permit depending on the results of the preconstruction review. The regulation is being proposed to meet the requirements of ə 112(g) of the federal Clean Air Act, and 40 CFR Part 63 Subpart B of federal regulations.

STATEMENT OF LEGAL AUTHORITY

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, and has not exceeded, its statutory authority to promulgate the proposed regulation is attached.

STATEMENT OF STATUTORY MANDATES

The proposed regulation is mandated by federal law and regulation. A succinct statement of the source (including legal citation) and scope of the mandate may be found below. A copy of all cited legal provisions may be found at the internet sites listed below.

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

Under ∋ 112 of the Clean Air Act, EPA is required to develop and maintain a list of hazardous air pollutants (HAPs), and to develop emission standards for these pollutants. Section 112(b) consists of an initial list of HAPs established by Congress, which EPA is to maintain and update as necessary. EPA is then required by ∋ 112(c) to develop a list of source categories of major and area sources of the pollutants listed in ∋ 112(b). For these categories, EPA must establish emission standards under ∋ 112(d), according to the schedules in ∋∋ 112(c) and (e). Section 112(g) requires that states provide a means of developing emission standards--known as maximum achievable control technology or MACT--should EPA not meet the requirements of ∋∋ 112(c), (d), and (e). Section 112(i), Schedule for Compliance, requires that sources affected by ∋∋ 112 (d), (f), or (h) meet the requirements of 40 CFR Part 63.5.

Section 112(g) requires major sources to apply maximum achievable control technology (MACT). As described in ∋∋ 112(g)(2)(A) and (B), modifying sources must meet the MACT for existing sources, and new sources must meet the MACT for new sources. If no applicable emissions limitations have been established, MACT must be determined on a case-by-case basis by states with approved permit programs established under title V of the federal Clean Air Act. Section 112(g)(1)(A) also allows sources to avoid requirements for modifications through the substitution of offsets; ∋ 112(g)(1)(B) requires EPA to publish guidance that identifies the relative hazard to human health resulting from HAP emissions in order to facilitate any offset.

National Emission Standards for Hazardous Air Pollutants for Source Categories are found in 40 CFR Part 63. Thus far, final MACT standards have been issued for over 30 source types. The requirements of ∋ 112 are also implemented in 40 CFR 63.40 through 63.44, Requirements for control technology. This final rule was published in 61 FR 68384 (December 27, 1996). It establishes requirements and procedures for owners or operators to follow to comply with ∋ 112(g), as well as guidance for permitting authorities in implementing ∋ 112(g).

COMPARISON WITH STATUTORY MANDATES

The proposed regulation exceeds the specific minimum requirements of the legally binding federal mandate in a number of respects.

The regulation was structured to encompass permitting for all potential major sources of HAPs in addition to those affected by ∋ 112(g). Thus, a major source for the purposes of this rule may be a ∋ 112(g) source, a ∋ 112(i) source, or a 40 CFR Part 61 source. Although there is no federal mandate for inclusion of ∋ 112(i) and 40 CFR Part 61 sources, the Commonwealth has requested and received delegation of authority from EPA to enforce these provisions. Most of the permits issued under this rule will be ∋ 112(g) permits requiring a MACT determination.

STATEMENT OF CONCLUSIONS AND NEED

The proposed regulation is essential (i) to protect the health, safety or welfare of citizens and (ii) for the efficient and economical performance of an important governmental function. The reasoning for this conclusion is set forth below.

Hazardous air pollutants are known or suspected of causing cancer, nervous system damage, birth defects, and other serious health effects. Control of major sources of these pollutants will reduce and prevent such serious health effects.

Failure to develop an adequate regulation will also result in imposition of a federal program. Meeting the basic requirements of the law and its associated regulations will ensure that Virginia retains its rights to govern Virginia sources.

As explained earlier, there is no federal mandate requiring inclusion of § 112(i) or Part 61 sources into this particular regulation at this point in time. The department has requested and received delegation of authority from EPA to implement and enforce these provisions, in order to remove an additional layer of permitting requirements and focus permitting activities to the state level. Inclusion of these types of HAP sources will thereby minimize administrative red tape. This approach will also make the most efficient use of state resources: by including all potential major sources of HAP into one regulation, the board will streamline and simplify the permitting process. This approach also provides the board with some flexibility in determining appropriate permitting actions, while providing them guidance in an often problematic process. It is anticipated that very few sources will fall into the category of "non-§ 112(g) sources"; it is also anticipated that the board will require some guidelines in the future should such sources appear.

Finally, this approach also ensures that the permitting process is simpler for the public to understand and utilize, as well as ensure that the HAP permitting process is consistent with the existing new source review permitting program.

STATEMENT OF ESTIMATED IMPACT

1. Entities Affected

   This regulation applies to new and reconstructed major sources of hazardous air pollutants. Because the regulation affects sources yet to be constructed, it is difficult to determine the exact number of potentially affected facilities. Further, the number of permit applications received by the department varies significantly from one year to the next. However, it is estimated that between one to five facilities may be required to meet the regulation's requirements within two years of its promulgation.

2. Fiscal Impact

   a. Costs to Affected Entities

      This regulation enables the board to make MACT determinations, which, rather than applying to a specific type of sources or specific pollutants, are determined on a case-by-case, technology-by-technology, source-by-source basis. MACT determinations

must also, by definition, take into account the economic feasibility of the technology chosen. It is therefore not possible to accurately predict any specific costs associated with implantation of this regulation.

b. Costs to Agency

While some new resources (time and personnel to review permit applications, primarily) may need to be expended to implement this rule, the board already has in place a well-defined permitting system into which the requirements of this regulations fit. Therefore, it is not expected that the regulation will result in any cost to the Department of Environmental Quality beyond that currently in the budget.

c. Source of Agency Funds

The sources of Department funds to carry out this regulation are the general fund and the grant money provided by the U.S. Environmental Protection Agency under Section 105 of the federal Clean Air Act.

d. Benefits

The general public will benefit from this rule because it will control emissions of hazardous air pollutants, which are a source of serious health and welfare effects. While the benefits from reducing HAPs are difficult to quantify, they will include the reduction of disease incidence and damage to property.

Industry in general as well as the Department will also experience benefits in the form of increased source information, which is useful for short- and long-term air quality planning. Further, this program is intended to act as an interim program for sources for which EPA has missed a regulatory deadline; such sources will benefit by being able to meet EPA requirements proactively rather than reactively.

e. Small Business Impact

The impact upon facilities that meet the definition of small business provided in ∋ 9-199 of the Code of Virginia is addressed in paragraph 2a above.

STATEMENT OF PROCESS FOR CONSIDERING ALTERNATIVES

As provided in the public participation procedures of the State Air Pollution Control Board, the Department included, in the Notice of Intended Regulatory Action, a description of the Department's alternatives and a request for comments on other alternatives and the costs and benefits of the Department's alternatives or any other alternatives that the commenters provided.

Following the above, alternatives to the proposed regulation were considered by the Department. The Department determined that the first alternative is appropriate, as it is the least burdensome and least intrusive

alternative that fully meets the purpose of the regulation. The alternatives considered by the Department 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: to comply with the requirements of the federal Clean Air Act.

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 will not ensure consistency with federal requirements.

3. Take no action to amend the regulations. This option is not being selected because it will result in the imposition of a federal program.

EVALUATION SCHEDULE AND GOALS

The Department will evaluate the regulation for effectiveness and continued need within three years after its effective date.

The specific and measurable goal the proposed regulation is intended to achieve is to determine if sources of hazardous air pollutants are choosing proper control technologies and therefore effectively controlling emissions.

SUPPORT DOCUMENT FOR
PROPOSED REGULATION REVISION J97
CONCERNING

NEW SOURCE REVIEW FOR
SOURCES OF HAZARDOUS AIR POLLUTANTS

SUMMARY OF PROPOSED REGULATION

The regulation concerns new source review for sources of hazardous air pollutants (HAPs) and is summarized below.

The regulation applies to the construction or reconstruction of a major source of HAPs. Electric utility steam generating units and research and development activities are specifically exempted.

The regulation encompasses permitting for all potential major sources of HAPs in addition to those affected by ∋ 112(g) of the federal Clean Air Act. Thus, a major source for this rule may be a ∋ 112(g) source, a ∋ 112(i) source, or a 40 CFR Part 61 source.

The regulation addresses the following subjects: applicability; general requirements; permit application requirements; application information required;

action on permit applications; public participation; standards and conditions for granting permits; application review and analysis; compliance determination and verification by performance testing; permit invalidation, rescission, revocation and enforcement; existence of permit no defense; compliance with local zoning requirements; transfer of and changes to permits; administrative and minor permit amendments; significant amendment procedures; reopening for cause; requirements for constructed or reconstructed major sources subject to a subsequently promulgated MACT standard or MACT requirements.

STATEMENT OF LEGAL AUTHORITY

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, and has not exceeded, its statutory authority to promulgate the proposed regulation amendments is attached.

STATEMENT OF PURPOSE, SUBSTANCE, ISSUES, BASIS, AND IMPACT

A. Purpose - The purpose of the regulation is to control emissions of hazardous air pollutants (HAPs) from major sources and to protect public health and welfare by establishing the procedural and legal basis for the issuance of a new source permit for proposed new or reconstructed facilities that will (i) enable the agency to conduct a preconstruction review in order to determine compliance with applicable control technology and other standards and (ii) provide a state and federally enforceable mechanism to implement permit program requirements. The regulation also provides the basis for the agency's final action (approval or disapproval) on the permit depending on the results of the preconstruction review. The regulation is being proposed to meet the requirements of ∋ 112(g) of the federal Clean Air Act, and 40 CFR Part 63 Subpart B of federal regulations.

B. Substance - The major provisions of the proposal are summarized below:

1. The regulation was structured to encompass permitting for all potential major sources of HAPs in addition to those affected by ∋ 112(g). Thus, a major source for the purposes of this rule may be a ∋ 112(g) source, a ∋ 112(i) source, or a 40 CFR Part 61 source. Most of the permits issued under this rule will be ∋ 112(g) permits requiring a MACT determination.

2. Unlike other new source permitting regulations, this regulation applies only to constructed or reconstructed sources. It does not apply to modifications or relocations.

3. In order to be consistent with the board's existing permit regulations, the regulation was modelled on Chapter 80 rules, and includes general permitting requirements such as public participation requirements.

4. The provisions of the rule concerning determination of case-by-case MACT apply only to ∋ 112(g) sources.

5. The following general principles govern MACT determinations:

a. The MACT emission limitation may not be less stringent than the emission control achieved in practice by the best controlled similar source.

b. The MACT emission limitation must achieve the maximum degree of reduction in emissions of HAPs which can be achieved by using control technologies that can be identified from existing available information, taking into consideration costs and any non-air quality health and environmental impacts and energy requirements.

c. The applicant may recommend a specific design, equipment, work practice, or operational standard, or a combination thereof.

d. If EPA has either proposed a relevant emission standard or developed a presumptive MACT determination for the relevant source category, then the MACT requirements must consider such proposed or presumptive emission limitations and requirements.

6. A MACT determination is not necessary if the source can demonstrate to the board that the HAPs will be controlled by previously installed emission control equipment that represents best available control technology (BACT), lowest achievable emission rate (LAER), or the level of control currently achieved by other well-controlled similar sources.

7. Information to be included in the permit application is specified, including information needed by the board to determine MACT or other applicable emission limitations.

8. Compliance determination and verification by performance testing are specified.

9. Requirements for sources subject to a subsequently promulgated MACT standard or MACT requirements are explained.

10. Administrative procedures such as permit invalidation, rescission, revocation and enforcement; compliance with local zoning requirements; transfer of and changes to permits; administrative and minor permit amendments; significant amendment procedures; and reopening for cause are included.

C. Issues - The primary advantages and disadvantages of implementation and compliance with the regulation by the public and the Department are discussed below.

1. Public: The general public will benefit from this rule because it will control emissions of hazardous air pollutants, which are a source of serious health and welfare effects. The advantages to reducing HAPs include the reduction of disease incidence and damage to property. A limited segment of the public may experience an economic disadvantage where an affected source must install pollution control devices and thereby reduce profits or increase costs to customers; however, such controls are implemented based on economic feasibility, thus limiting the disadvantage.

Implementation of the regulation is also an advantage to industry in general, as the regulation is intended to act as an interim program for sources for which EPA has missed a regulatory deadline; such sources will benefit by being able to meet EPA requirements proactively rather than reactively.

2. Department: The department will experience benefits in the form of increased source information, which is useful for short- and long-term air quality planning. Some additional resources in terms of personnel and effort involved in permit review, preparation, and inspection may be expended, which would be a disadvantage.

D. Basis - The legal basis for the proposed regulation amendments is the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia), specifically § 10.1-1308 which authorizes the Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare.

E. Economic Impact Analysis - The Department of Planning and Budget prepared an economic impact analysis for the proposal as required by § 9-6.14:7.1 G of the Administrative Process Act. The Department of Environmental Quality takes no issue with the economic impact analysis prepared by the Department of Planning and Budget.